2017 - 2018
Postgraduate Course Catalogue

University of
St Andrews

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Curriculum Development

The University will use all reasonable measures to deliver courses of study as they are outlined at the time of offer. However, as a research intensive institution, the University ensures that its teaching is based on and references the research and related interests of its staff, which may change from time to time. We are also mindful of the best use of our resources to ensure the highest quality experience for our students. As a result, programmes and modules are regularly reviewed with the aim of enhancing students' learning experience. Any changes are made with due consideration to minimising impact, safeguarding academic standards and assuring quality, and are described at: www.st-andrews.ac.uk/media/teachin-and-learning/policies/course-revision-protocol.pdf.

The Course Catalogue is also available online at:
www.st-andrews.ac.uk/coursecatalogue

1. Introduction to the Postgraduate Course Catalogue

The purpose of this Catalogue is to provide students with information on the structure of the taught postgraduate programmes, plus information on each of the modules that must, or may be, taken in such programmes.

The order of entries within the Catalogue is alphabetical according to the Schools which offer taught postgraduate programmes (it should be noted that not all the Schools in the University offer such programmes in Session 2017 - 2018).

Each School section provides:

    i) a list of its postgraduate taught programmes.

    ii) individual documents for each degree including and details of all postgraduate compulsory and optional modules offered on that programme including the credit value and assessment procedures.

The modules included in these documents will normally be only those available in 2016 - 2017. This reflects the situation when this document goes to press, although there may be subsequent alterations due to unforeseen circumstances. Supplementary information will be made available on alterations to availability after the closing date for inclusion in this Catalogue. www.st-andrews.ac.uk/coursecatalogue/pg/.

2. Taught Postgraduate Programmes

The MLitt, MSc and MRes degree programmes normally comprise at least 120 credits in taught modules, of which a minimum of 90 credits should be from 5000-level modules plus a dissertation or research project.

The MPhil normally comprises 120 credits in taught 5000-level modules, plus a longer thesis. A student may transfer, subject to conditions, from the first year of taught study to the MPhil (see Regulations).

The Postgraduate Diploma requires at least 120 credits of which a minimum of 90 credits should be from 5000-level modules. The Postgraduate Certificate requires at least 60 credits of which a minimum of 40 credits should be from 5000-level modules.

The modules required for the award of each qualification are listed under each individual programme specification. It should be noted that some modules may be taken from outside the programme requirements or from outwith the School's provision, but this is subject to permission being granted by the Heads of School concerned.

The award of these degrees is additionally subject to the criteria described in this policy

http://www.st-andrews.ac.uk/media/teaching-and-learning/policies/PGT%20Credit%20Grades%20Awards.pdf

Further information on progression from the taught to research degrees may be found in the Change of Registration policy, available online from http://www.st-andrews.ac.uk/media/teaching-and-learning/policies/pg-change-of-reg.pdf

3. Explanation of fields in Module entries
Explanation of Fields in Module Entries

Module code and Title. Module codes are unique. The third character indicates the module level.

Academic Year. The academic **session** (whether current or planned) in which the module will be offered.

SCOTCAT Credits. Credits are the number of points a specific module contributes towards a recognised degree programme and are grouped according to the **level** of academic content in the module. A student's studies towards a degree will be structured in terms of modules, each of which is assigned a credit value; so, for example, 1000-level modules in the School of Art History are worth 20 credits. One credit represents the outcome achievable by the average student through 10 notional hours of learner effort.

SCQF Level. The **Scottish Credit and Qualifications Framework** (**SCQF**) SCQF Levels provide an indication of the complexity of qualifications and learning programmes and are based on a single set of Level Descriptors that are the common reference points and definitions which provide a way of recognising learning that is outcome-based and quality-assured. 1000 level = SCQF 7, 2000 level = SCQF 8, 3000 level = SCQF 9, 4000 level = SCQF 10, 5000 level = SCQF 11.

Semester. The Semester or Semesters in which the module is taught, where 'either' means that the module is taught in both one or the other semesters, 'both' means being offered twice, and 'whole year' means that it is

taught across the two semesters. The St Andrews teaching year has two semesters (September - December, and January - May). Students undertaking a full-time dissertation are expected to be resident within commuting distance of St Andrews from May to late August.

Availability Restrictions. If a module is available but with constraints, these particular restrictions will be clarified in this field.

Planned Timetable. Where a single time is given (e.g. 9.00 am) the class meets for one hour.. If days of the week are not specified, the class meets every day from Monday to Friday, with the usual exception of Wednesday afternoons. Further details may be provided in this field.

Description. A brief statement of the content of a module.

Programme module type. This indicates how the module fits into various programmes of study and whether it is compulsory or optional- see below.

Compulsory / Optional. In the 'Programme module type' field, modules are identified as either 'Compulsory' or 'Optional' for a programme or group of programmes. 'Compulsory' modules must be taken for the programmes named. Modules defined as 'Optional' are appropriate to fulfil degree credit requirements for the named programme(s). Students may select 'Optional' modules and will be allowed entry to those modules which are agreed with their Adviser of Studies for each year of study.

Pre-requisite(s). Second semester modules, and some others, may have pre-requisites, reflecting the assumption that they build upon previous knowledge gained.

Co-requisite(s). A module which must be taken in the same **semester** or academic session as the one listed.

Anti-requisite(s). Students may **not** take a module if they have already passed or are currently taking any module or other qualification specified as an anti-requisite to it.

Required for. Modules which require this module to be passed, as a pre-requisite to entry.

Learning and Teaching Methods and delivery. This gives **Weekly Contact**.

Weekly Contact. This will be an indication of the weekly teaching provision for each student. Where the pattern of teaching varies from week to week, **the average weekly contact is given**. Various activities may be included. (tutorials, laboratory work, practical sessions, lectures, fieldwork, consultation hours etc)

Assessment pattern. A brief description of the distribution between assessed coursework and formal examination. A percentage breakdown of which elements of assessment qualify in each Quality Assurance Agency (QAA) defined category are also given. These may match the narrative description ("As used by St Andrews"), or they may differ slightly because some elements of Coursework (Class Tests for example) can be considered Written Examinations in this context.

Module Co-ordinator. The academic member of staff responsible for this module, or the contact point for further information.

Lecturer(s)/Tutor(s). One or more academic members of staff who are planned to deliver the content of the module.

4. Glossary of other commonly used terms

Academic Year. An academic **year** is synonymous with academic **session** (September to September), and comprises two **semesters** and the summer period.

Assessment. The method by which the final grade for a module is determined. This can be made up of Coursework, Practical Examinations or Written Examinations, or combinations of more than one type of assessment.

Common Reporting Scale (20-point) This is a scale from 0 to 20.0 used for recording the grade achieved in the assessment of a module or elements of a module. Please see www.st-andrews.ac.uk/media/teaching-and-learning/policies/PGT%20Credit%20Grades%20Awards.pdf for further information.

Credit Loads. Normally a full-time student will take modules worth 60 credits during each **semester**. Part-time students must take at least 20 credits per **semester** and no more than 80 credits each **session**.

European Credit Transfer System (ECTS). All modules have an accreditation in the ECTS scheme. Credits transferred to other institutions will be exactly half of the credits shown for each module. The grade for each module will be calculated according to established ECTS procedures and, therefore, it will not necessarily be the same as a grade for a module awarded by this University. For information about Credit & Grade Conversion for grades achieved on approved Study Abroad programmes, please see www.st-andrews.ac.uk/studyabroad

Faculty. There are four faculties - Arts, Divinity, Medicine and Science. Although Arts and Divinity are treated as a single entity for administrative purposes.

Grades. A student who passes a **module** will have gained both **credits**, reflecting the workload and study time of the module, and a **grade**, reflecting the quality of the work. The grade is numeric and recorded on the **Common Reporting Scale.**

Failure to Register Policy. This policy relates to students who fail to complete the registration process in any given academic year in which they are actively engaged with their studies, or who fail to obtain permission from the University to interrupt their studies. Failure to register by the published deadlines will result in termination of studies. For details see policy at:

http://www.st-andrews.ac.uk/students/rules/matriculation/FailuretoRegisterPolicy-UGandPGT/

Levels. The level of academic content and externally assured outcomes of a module. There are five **Levels** of modules: 1000, 2000, 3000, 4000 and 5000. Postgraduate modules are normally 5000 level. See also **SCQF Level.**

Module. Degree programmes are modular in structure. The key elements of a module are **SCOTCAT credits**, **levels** of study, title, **description** of content, requisites (pre-,co- or anti-), **assessment** requirements, and availability (**academic year** and **semester**). Each module will be a self-contained unit of teaching, learning and assessment. For the majority of modules teaching will take place in an 11-week learning period, perhaps broken by a vacation or by an independent learning week in which no formal contact hours are provided. In most cases the learning block will be followed by an examination. Others will be concentrated into a shorter period, and some will be taught over two semesters.

Postgraduate Certificate. The Postgraduate Certificate requires at least 60 credits of which a minimum of 40 credits should be from 5000-level modules in an approved programme.

Postgraduate Diploma. The Postgraduate Diploma requires at least 120 credits of which a minimum of 90 credits should be from 5000-level modules in an approved programme.

Programme Requirements. The combination of modules and credits required in order to be awarded a qualification.

Qualifications. Each type of qualification (e.g. MLitt or MSc) is governed by a set of Senate Regulations, and is awarded under a specific Court Resolution. All taught courses require a generic programme specification published using the Scottish Credit and Qualifications Framework (SCQF).

RPL - Recognition of Prior Learning (RPL) is the recognition by the University of St Andrews, for its academic purposes, of prior learning that has taken place elsewhere. RPL may facilitate admission to a degree programme (undergraduate or postgraduate); provide advanced standing on a programme, or lead to the award of credit to count towards a programme's requirements. RPL may be as a result of Certificated Learning (RPCL) or Experiential Learning (RPEL).

Semester. The academic **session** is divided into distinct teaching periods called **semesters**. Semester 1 runs from September to December, Semester 2 runs from January to May.

Session. An academic session comprises two **semesters** and the summer period.

University of St Andrews

Postgraduate Resolutions and Regulations

Academic Session 2017/18

1. COURT RESOLUTIONS

The University has the power to confer degrees under the various Court Ordinances and Resolutions detailed below. The full text of each can be found on the University Court website at www.st-andrews.ac.uk/about/UniversityCourt/Ordinancesandresolutions. The Senatus Academicus, with the approval of the University Court, has the power to make regulations on any matters in order to give effect to these instruments.

Ordinance No.6 (Scottish Universities) – Regulations for the Degree of Doctors of Letters (DLitt) (13 May 1959)

Ordinance No.350 (General No.12) – Regulations for Research Students and Appointment of Research Fellows (12 September 1960)

Resolution 1974 No.3 – Degree of the Doctor of Science (DSc) (18 March 1974)

Resolution 2001 No.3 – Degrees of Doctor of Engineering (DEng/EngD) Master of Engineering (MEng), and Bachelor of Engineering (BEng) (8 March 2002)

Resolution 2003 No.2 – Degree of Doctor of Medicine (MD) (4 July 2003)

Resolution 2008 No.4 – Degree of Doctor of Performance (DPerf) (16 October 2009)

Resolution 2011 No.1 – Award of Postgraduate Degrees, Postgraduate Diplomas and Postgraduate Certificates (13 May 2011)

Resolution 2011 No.2 – Award of Graduate Diplomas and Graduate Certificates (13 May 2011)

Resolution 2014 No.1 – Degree of Master of Fine Arts (20 June 2014)

2. SENATE REGULATIONS

A. REGULATIONS FOR POSTGRADUATE STUDENTS

I. Interpretation

1. In these Regulations, the following expressions shall have the meanings hereby assigned to them:

"Dean of Faculty" means the "Dean of the relevant Faculty or such other Faculty Officer to whom the responsibility has been delegated";

"Head of School" means the "Head of School or director of research institute or such other member of school or institute to whom the responsibility has been delegated";

"MLitt" means "Master of Letters", "MSc" means "Master of Science", "MRes" means "Master of Research", "MSt(Res)" means "Master of Studies by Research", "MSc(Res)" means "Master of Science by Research", "MPhil" means "Master of Philosophy", "MFA" means "Master of Fine Arts", "DLang" means "Doctor of Languages", "PhD" means "Doctor of Philosophy", "MD" means "Doctor of Medicine", "DEng/EngD" means "Doctor of Engineering".

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B. AWARDS INCLUDING CREDIT-BEARING MODULES: POSTGRADUATE CERTIFICATES, DIPLOMAS AND DEGREES OF MASTER OF FINE ARTS, MASTER OF LETTERS, MASTER OF SCIENCE, MASTER OF RESEARCH, MASTER OF PHILOSOPHY AND DOCTOR OF ENGINEERING.

All programmes that include credit-bearing modules must accord with the SCQF framework.

There are two routes to the MPhil, one by completion of credit-bearing modules and submission of a thesis as set in section B.I.4., and one by research as set out in section C.II. Both are research degrees.

I. Postgraduate Certificates, Diplomas and Postgraduate Degrees with a Taught Element

1. A candidate who has, over a period of not more than one semester for a full-time student, two semesters for a part-time student and two years for a distance-learning student:

   A. gained at least 60 credits, of which at least 40 credits are at 5000 level, in an approved programme; and

   B. satisfied the Committee of Examiners for that programme; and

   C. satisfied the fee requirements,

   shall be awarded the Postgraduate Certificate.

2. A candidate who has, over a period of not more than two semesters for a full-time student, two years for a part-time student and four years for a distance-learning student:

   A. gained at least 120 credits, of which at least 90 credits are at 5000 level, in an approved programme; and

   B. satisfied the Committee of Examiners for that programme; and

   C. satisfied the fee requirements,

   shall be awarded the Postgraduate Diploma.

3. Unless otherwise stated in an agreement with another institution, a candidate who has, over a period of not more than one year for a full-time student, two years for a part-time student, and five years for a distance-learning student:

   A. gained at least 180 credits in an approved programme, of which at least 150 are at 5000 level, and which include a dissertation or equivalent; and

   B. satisfied the Committee of Examiners in the assessments for that programme and in the dissertation; and

   C. satisfied the fee requirements,

   shall be awarded the degree of MLitt or MSc or MRes, as appropriate.

4. Unless otherwise stated in an agreement with another institution, a candidate who has, over a period of not more than two years for a full-time student, four years for a part-time student, and six years for a distance-learning student:

   A. gained at least 120 credits, of which at least 90 credits are at 5000 level, in an approved programme; and

   B. submitted a thesis of up to 40,000 words or, within a programme approved by the Dean, the equivalent and appropriate alternative assessment; and

   C. satisfied the Committee of Examiners in the assessments for that programme and in the dissertation; and

   D. satisfied the fee requirements,

shall, if the thesis is approved, be awarded the degree of MPhil.

5. Unless otherwise stated in an agreement with another institution, a candidate who has, over a period of two years for a full-time student, four years for a part-time student, and six years for a distance-learning student:

    A. gained at least 120 credits in an approved programme; and

    B. submitted an assessment appropriate to the degree and approved by the Dean; and

    C. satisfied the Committee of Examiners in the assessments for that programme; and

    D. satisfied the fee requirements,

    shall, if the thesis is approved, be awarded the degree of MFA.

6. The Postgraduate MSc or MLitt Erasmus Mundus Masters (Dual/Multiple award) will be awarded for the completion of a programme consisting of at least 180 credits at 5000 level. A minimum 50% of the credits obtained must be completed at St Andrews or as part of a previously approved joint programme offered with another HE institution. The remaining credits must be completed at an already recognised institution or institutions as part of an approved Erasmus Mundus agreement. The degree awarded by St Andrews will indicate that the MSc/MLitt Erasmus Mundus Masters (Dual/Multiple) was completed in association with the Partner Institutions. Students who undertake such a programme and achieve 120 credits, of which at least 60 credits were from the University of St Andrews, but select not to progress to one of the partner institutions may be awarded the Postgraduate Diploma.

7. Candidates for postgraduate awards 'with English Language' are permitted an additional one semester for a full-time student, two semesters for a part-time student and two years for a distance-learning student to meet the conditions of the award.

II. Admission to a taught postgraduate programme

1. To qualify for admission to a taught postgraduate programme a candidate must have obtained a degree from a university in the United Kingdom or other qualification(s) deemed equivalent by the Dean of Faculty. Suitably qualified applicants may be admitted direct to the second year of studies leading to the degree of MPhil.

2. Applications for admission to a taught postgraduate programme must be submitted to the University Admissions Office, which shall have power, after consultation with the relevant School/s, to admit applicants who are deemed to satisfy the requirements referred to in this Regulation.

3. No applicant shall be eligible for admission and no student will be allowed to matriculate who will thereby be registered simultaneously on programmes leading to awards in more than one institution, except a) under the terms of an agreement between the University and that institution, or b) with the permission of the Dean of the relevant Faculty.

III. Mode of Study

1. Applicants will be admitted as full-time, part-time or distance-learning students.

2. All full-time students shall, for the duration of a programme taught solely in St Andrews, be resident within a commutable distance of St Andrews in accordance with the Location of Study policy.

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3. Students may request a change of status if they can satisfy the Dean of Faculty that it is appropriate.

IV. Nature and Duration of the Postgraduate Taught Programme

1. The Senatus Academicus, on the recommendation of the Dean of Faculty, shall prescribe the subjects in which taught programmes may be offered.

2. The Dean of Faculty shall approve, for each programme, the modules which are available to students on that programme and, for each module, the method of assessment and the credits to be awarded to a student who gains a pass grade in that module.

3. The assessment for a module shall be by examination, by continuous assessment of course work, or by a combination of both.

4. The Head of School (or delegated representative) shall appoint a person to supervise the student's dissertation research studies, to whom the student shall report at least monthly and on such other occasions as the supervisor may require. In exceptional circumstances, the Head of School may appoint an additional supervisor from within or outwith the University. Where a student requires to study for a period outwith St Andrews, the Dean of Faculty shall appoint an additional external supervisor.

V. Registration

1. All students shall matriculate in each year of study, and shall commence their studies no later than two weeks after the beginning of the programme.

2. A student's progress may be reviewed at the end of each semester of study, and at the student's request, a recommendation for registration into a different postgraduate degree programme can be made to the Dean by the the Head of School in accordance with the Postgraduate Change of Registration policy.

VI. Assessment and awards

1. Each candidate shall be examined by a Board of Examiners, consisting of the professors, readers and lecturers and any staff nominated through the Dean to the Board of Examiners who conduct the programme and such external examiner(s) as the Vice-Principal (Proctor) may appoint.

2. Having completed all the work of a module, candidates shall complete the assessment for the module by the end of the diet of examinations held at the end of the semester in which teaching for the module ceases.

3. If a candidate fails to complete the assessment for a module through illness or other good cause, the Board of Examiners may arrange such special examinations outside the normal diet and/or examine such submitted work as they deem necessary.

4. Where a student fails the assessment for a module, the Board of Examiners may offer a re-assessment, the exact form of which must be approved by the External Examiner. Modules passes at reassessment will be capped at 7.0 and this grade will be entered into the algorithm for the classification of awards.

5. Once a pass grade has been achieved in a module a student cannot re-register for the module.

6. Students whose progress is deemed by the Head of School (or delegated representative) to be unsatisfactory on the grounds of failure to obtain 40 credits in one semester for a full time student, 20 credits in one semester for a part-time student or 20 credits in one academic year for a distance learning student may be required by the Dean of Faculty to terminate their studies at any time of the year.

7. Students who fail to satisfy the requirements of a module by failure to submit work within stipulated deadlines and after due warning, or who have been absent from the teaching of a module for 2 continuous weeks, shall, save in exceptional circumstances and with the permission

of the relevant Pro Dean, have forfeited the right to continue to attend the module, and may be required by the Dean of Faculty either to take Leave of Absence or to terminate their studies at any time of the year.

8. A written report, signed by the Board of Examiners, on each candidate who completes the taught component of the programme shall be submitted to the Dean of Faculty and shall recommend that:

in the case of a candidate for the Postgraduate Certificate:

A. the Postgraduate Certificate be awarded; or

B. the candidate be allowed to re-register for the Postgraduate Diploma; or

C. the candidate not having achieved the required standard, no award should be made.

in the case of a candidate for the Postgraduate Diploma:

A. the Postgraduate Diploma be awarded; or

B. the candidate be allowed to re-register for the degree of MLitt, MSc, MFA, MPhil or MRes; or

C. the candidate not having achieved the required standard, the Postgraduate Certificate be awarded where so qualified; or

D. the candidate not having achieved the required standard, no award should be made.

in the case of a candidate for the degree of MLitt or MSc or MRes:

A. the candidate be allowed to re-register for the degree of MFA or MPhil; or

B. the candidate proceed to present the dissertation having satisfied regulation B.VI.4.; or

C. the candidate be awarded the Postgraduate Diploma where so qualified; or

D. the candidate be awarded the Postgraduate Certificate where so qualified; or

E. the candidate not having achieved the required standard, no award should be made.

in the case of a candidate for the degree of MFA:

A. the candidate be allowed to proceed to the second year of study; or

B. the candidate be allowed to re-register for the degree of MLitt; or

C. the candidate be awarded the Postgraduate Diploma where so qualified; or

D. the candidate be awarded the Postgraduate Certificate where so qualified; or

E. the candidate not having achieved the required standard, no award be made.

in the case of a candidate for the degree of MPhil:

A. the candidate be allowed to proceed to the second year of study; or

B. the candidate be allowed to re-register for the degree of MLitt, MSc or MRes; or

C. the candidate be awarded the Postgraduate Diploma where so qualified; or

D. the candidate be awarded the Postgraduate Certificate where so qualified; or

E. the candidate not having achieved the required standard, no award be made.

9. Students who attain the appropriate grade may be recommended for the award of the degree of MLitt, MSc, or MRes, with either:

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A. a classification of "Pass" where the candidate has achieved 180 credits in an approved programme (of which 150 credits are at 5000 level) and the GPA achieved across those credits ranges between 7.0 – 13.4.

B. or, a classification of "Merit" where the candidate has achieved 180 credits in an approved programme (of which 150 credits are at 5000 level) and the GPA achieved across those credits ranges between 13.5 – 16.4.

C. or, a classification of "Distinction" where the candidate has achieved 180 credits in an approved programme (of which 150 credits are at 5000 level) and the GPA achieved across those credits ranges between 16.5 – 20.0.

VII. Dissertation for MLitt, MSc and MRes

1. The dissertation shall be submitted not later than twelve months from the date of the commencement of the programme or the equivalent for part-time and distance-learning students, or according to specific regulations pertinent to the programme of study. Exceptionally a candidate may be permitted a further period of three months beyond the reporting deadline in which to submit the dissertation with the permission of the relevant Pro Dean.

2. Unless otherwise stated in an agreement with another institution or, with the special permission of the Dean of Faculty, the dissertation shall be written in English and shall not exceed 15,000 words. Within a programme approved by the Dean, the dissertation may be replaced by a form of assessment which has equivalent academic standing. The approval of the Dean is also required for a dissertation containing extensive translations or quoted text to exceed 15,000 words.

3. The dissertation shall be prefaced with a declaration that it has been composed by the candidate, that the work of which it is a record has been done by the candidate alone or is in accordance with the School's group dissertation guidelines, and that is has not been accepted in any previous application for any degree.

4. Two copies of the dissertation shall be submitted according to the school requirements but shall not be required to be deposited in the University Library. One copy may, however, be retained in the School.

5. The dissertation shall be examined by at least two internal examiners.

6. The Board of Examiners shall, on the basis of the written report of the examiners for the taught component and of their assessment of the dissertation and, if applicable, any oral examination required, recommend to the Senatus Academicus, through the Dean, either:

A. that the degree of MLitt or MSc or MRes be awarded; or

B. the Dissertation not having reached the required standard, the Postgraduate Diploma be awarded where so qualified (unless otherwise stated in an agreement with another institution).

7. A candidate who has been permitted to proceed to the dissertation element of the MLitt or MSc or MRes but does not submit the dissertation may apply to the Senatus Academicus for the award of the Postgraduate Diploma.

VIII. Thesis for MPhil and MFA

1. The thesis shall be submitted not later than the end of the final year of study. The thesis is expected to constitute an original contribution to knowledge consistent with what may reasonably be expected of a diligent student after one year of full-time research. It should be clearly written, well argued and should indicate a satisfactory knowledge of the field of study.

2. The thesis shall be written in English. The normal maximum length of the thesis will be 40,000 words, excluding bibliography.

3. Within any programme approved by the Dean of Faculty, a different form of assessment, which

has equivalent academic standing, may replace the thesis. Examples of such equivalents for the MFA are 40,000 words for creative prose; forty pages of poetry or 90 minutes of performance.

4. Three complete copies of the thesis shall be submitted in typescript and in secure but temporary binding. There shall be an adequate margin on each page. After the examination has been completed, one copy shall be bound in an approved style at the candidate's expense and shall be deposited in the University Library. The candidate shall also, unless previously agreed, provide an electronic copy of the thesis in an approved format.

5. An abstract (not exceeding 300 words in length) of the thesis shall be submitted for the approval of the examiners. The abstract (and, where appropriate, the summary) shall be bound in with the thesis.

6. In exceptional circumstances the Dean of Faculty may give permission for the thesis to be presented in a different medium.

7. The introduction to the thesis shall be prefaced by:

   A. a declaration that the thesis has been composed by the candidate, that the work of which it is a record has been done by that candidate, and that it has not been accepted in any previous application for any degree;

   B. a statement of the date of the candidate's admission as a research student;

   C. a statement by the supervisor that the Regulations have been fulfilled;

   D. a statement of access or embargo to print and/or electronic copy of the thesis; and

   E. where a third party has been utilised to correct the written language in the thesis, a statement indicating that such assistance has been used.

8. The thesis shall give evidence of the candidate's capacity for independent research.

9. Reprints of published papers are not accepted in lieu of the formal thesis, which should take the form of a specially composed monograph.

10. For the thesis at least two examiners shall be appointed, one of whom must be an external examiner. The supervisor may not normally be a member of the examining committee, although the examining committee may invite the supervisor to submit a report and attend any oral examination deemed necessary by the examiners.

11. The examiners shall recommend to the Dean:

    A. that the thesis be approved and the degree of MPhil or MFA be awarded, subject to the making of any purely typographical corrections and revisions; or

    B. that the thesis be not accepted in its present form but that the candidate be given the opportunity to make minor corrections to the thesis within a period of three months of intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected, the thesis be approved and the degree of MPhil or MFA be awarded; or

    C. that the thesis be not accepted in its present form but that the candidate be given the opportunity to revise the thesis and resubmit it for re-examination within six months of intimation to the candidate of the decision of the examining committee—this recommendation meaning that the candidate must resubmit a corrected thesis, pay a

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resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; or

    D. that the thesis be rejected, and that the candidate be awarded the degree of MLitt, MSc, or Postgraduate Diploma where the work meets the required standard and is so qualified.

12. The Dean, once satisfied that all requirements of the Regulations have been observed, shall transmit the joint recommendations of the examiners to the Senatus Academicus.

IX. Resubmission of Thesis for MPhil and MFA

1. If a recommendation to the Senatus Academicus is made for resubmission by an examining committee the candidate shall receive in writing from the convener of the committee a detailed list of corrections and revisions deemed to be necessary by the examiners. The candidate shall be expected to take these into account in any resubmission of the thesis.

2. On resubmission of the thesis and payment of the appropriate fee the examining committee shall be reconvened and a further examination be conducted. The convener of the committee may recommend to the Dean that the requirement of the oral examination be waived, if it is the unanimous opinion of the examining committee that the thesis should be accepted.

3. In the event of an oral examination being required, the Dean may recommend the appointment of an appropriate neutral third party observer.

4. If the original examining committee cannot be reconvened then the Senatus Academicus shall have the power to appoint a new committee to examine the thesis.

5. The examining committee shall make one of the following recommendations to the Senatus Academicus:

    A. that the thesis be approved and the degree of MPhil or MFA be awarded, as appropriate; or

    B. that the thesis be approved and the degree of MPhil or MFA be awarded subject to minor corrections to be completed within three months and approved by the convener; or

    C. that the thesis be rejected, and that the candidate be awarded the degree of MLitt, MSc, or Postgraduate Diploma where the work meets the required standard and is so qualified.

C. AWARDS FOR RESEARCH ONLY: MSc(Res), MSt(Res), MPhil (by research route) and PhD

I. Degree of MSc(Res) or MSt(Res)

1. A candidate who has, over a period of one year for a full-time student, two years for a part-time student and four years for a distance-learning student:

    A. satisfied the Committee of Examiners in the assessment for the programme; and

    B. submitted a thesis of up to 30,000 words or, within a programme approved by the Dean, the equivalent and appropriate alternative assessment; and

    C. satisfied the fee requirements,

shall, if the thesis is approved, be awarded the degree of MSc(Res) or MSt(Res).

II. Degree of MPhil (by research route)

1. A candidate who has, over a period two years for a full-time student, four years for a part-time student and six years for a distance-learning student:

    A. satisfied the Committee of Examiners in the assessment for the programme; and

    B. submitted a thesis of up to 60,000 words or, within a programme approved by the Dean, the equivalent and appropriate alternative assessment; and

    C. satisfied the fee requirements,

shall, if the thesis is approved, be awarded the degree of MPhil.

III. Degree of Doctor of Philosophy (PhD)

1. A candidate who has:

   A. satisfied the Committee of Examiners in the assessment for the programme; and

   B. submitted a thesis of up to 80,000 words or, within a programme approved by the Dean, the equivalent and appropriate alternative assessment OR submitted an approved portfolio of published work; and

   C. satisfied the fee requirements,

   shall be awarded the degree of PhD.

2. For the purpose of these regulations PhD is understood to include both DLang and DEng/EngD when DLang or DEng/EngD is not explicitly stated.

IV. Admission to all Postgraduate Research Degrees

1. Applicants for admission to postgraduate research study must make written application to the University Admissions Office for consideration by the relevant School, stating:

   A. the nature of the academic or equivalent qualifications which they already possess;

   B. the nature of the research they wish to pursue;

   C. the names of at least two individuals who will be prepared to comment on their suitability as research students.

2. On receipt of the application the Head of School must be satisfied that:

   A. the applicant is suitably qualified;

   B. the research can be carried out effectively with the facilities available in the University or in exceptional circumstances in any institution approved by the Dean of Faculty;

   C. a professor, reader or lecturer in the University, or in exceptional circumstances some other properly qualified person, is prepared to supervise the work OR that adequate and appropriate supervision can be provided;

   D. an application for a research degree is considered by more than one member of the School's staff, at least one of whom should be research active, and with experience of the subject area.

3. The Head of School may recommend admission of applicants, who satisfy conditions 2 A.-C. The Proctor has overall responsibility to monitor the management of postgraduate study.

4. Suitably qualified students, for example students with an existing Masters degree in a cognate area, may be granted direct entry to the second year of the MPhil (by research route) with the permission of the Dean.

5. Admitted applicants will normally be full-time students although those in full-time employment may not be so registered except with the written permission of their employer. Members of staff of the University may be permitted to register full-time if they can satisfy the Dean of Faculty that:

   A. where they are funded from external sources, these bodies have given their permission;

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  B. the work on which they are engaged as full-time employees of the University is of sufficient scope and originality as to be appropriate for study as part of a higher degree;

  C. the level and character of supervision offered to the member of staff is in no way incompatible with that normally associated with study for a higher degree;

  D. that, to qualify for staff rates of fees, they satisfy the requirements that their contract must begin before or simultaneously with, the start of the degree course. Proof of staff status will be required prior to matriculating each year.

6. No students of the University who subsequently become employees during their studies are eligible for these concessions. Part-time students are only eligible if their contracts of employment reach the minimum 18.125 hours per week or 0.5fte and are on either a teaching contract of 10 months or more, or a non-teaching contract of 12 months or more.

7. Employees of the University who claim the concessionary staff rate may not simultaneously hold University scholarships or UK Research Council Scholarships for fees or living costs, and must have the permission of the head of their employing unit, and the Head of the School in which they will undertake the study, to apply for the concessionary fee.

8. Eligibility will be assessed by the University Fees Officer.

9. Where full-time registration by a member of staff is approved, the appropriate full-time fee will be payable. Notwithstanding, members of staff in either full-time or part-time employment may choose to study part-time. Other applicants, who are not members of staff, may study part-time only if they can satisfy the Senatus Academicus that inadequate time is available for full-time study.

V. Admission to PhD

1. The Senatus Academicus may admit as candidates for the degree of PhD persons who have been admitted as research students of the University and who have been recommended to register as PhD students by the Dean of Faculty. In exceptional circumstances the Senatus Academicus may admit as a candidate for the degree of PhD a student who can satisfy the Dean of Faculty that they already have adequate qualifications and for whom a supervisor can be appointed.

2. The Senatus Academicus may enter into an agreement with other universities, including those overseas, to permit joint supervision of students studying for doctorates leading to joint degrees.

  A. Where such agreements have been made, the Senatus Academicus may admit a student who can satisfy the Dean of Faculty that they are adequately qualified and that suitable supervisory and monitoring arrangement(s) can be made in both institutions into a jointly supervised degree programme.

  B. Appropriate joint Agreement(s) shall be signed between the two institutions. The purpose of the Agreement(s) is:

   i. to delineate the collective and individual responsibilities of the Institutions in relation to the provision, management, monitoring, evaluation and development of the programmes.

   ii. to agree a programme for each individual student.

  C. One of the two institutions will act as the lead institution and the student will then be subject to the academic regulations of the lead institution.

  D. An appropriate arrangement as to payment and distribution of fees will be made between the two institutions concerned.

3. Overseas students whose first language is not English must provide evidence of competence in written and spoken English as well as meeting the other entrance requirements. A satisfactory result in a test of English language competence recognised by the University is acceptable. If a

student is admitted who does not have satisfactory scores, they will be required to attend, and to attain a satisfactory standard in, a course in St Andrews in language, study skills and cultural orientation before the session begins.

4. Every research student shall be required to matriculate and pay the appropriate fee. All fees are subject to annual revision and the revised fees will apply to all students.

VI. Student Progress

1. All postgraduate research students and supervisors are required to conduct their research and supervision in accordance with the requirements of the University's policies for postgraduate research students.

2. All postgraduate research students shall be allocated supervision in accordance with the Policy for Supervision of Postgraduate Research Students.

3. All postgraduate research students are required to undertake postgraduate study and training as is laid down by the Postgraduate Research Committee and by the Head of School in which they undertake their research. This training is initially drawn up in a "schedule of research skills needs" at first matriculation and should include training in research methods and appropriate generic and transferable skills.

4. All research students will undergo an annual progress review in accordance with the Policy on Progress Reviews and Termination of Studies for Postgraduate Research Students.

5. If serious problems emerge regarding a student's progress, their studies may be terminated in accordance with the Policy on Progress Reviews and Termination of Studies for Postgraduate Research Students.

6. A research student shall have the right of appeal against a decision made under the procedures in 4 and 5, above in accordance with the Policy on Student Academic Appeals and Academic Complaints.

7. If academic misconduct relating to work assessed as part of a qualification awarded by the University of St Andrews is at any time proven against someone holding such a qualification, the University reserves the right to withdraw or reclassify the qualification awarded.

VII. Mode of Study

1. Candidates in full-time employment may not register as full-time students except with the written permission of their employer and the University.

2. All full-time students shall, for the duration of a programme delivered solely in St Andrews, be resident within a commutable distance of St Andrews in accordance with the Location of Study policy.

VIII. Duration and Place of Study

1. Every candidate for the degree of MPhil shall pursue a course of special study or research in the University of St Andrews during a period of two years or its equivalent for part-time and distance learning students. Every candidate for the degree of PhD, except under 2 below, shall pursue a course of special study or research in the University of St Andrews during a period of three years or its equivalent for part-time students.

2. Where students have been admitted under regulation C.V.2 their studies will be pursued in both institutions for such periods of time as are jointly agreed or, with the permission of the Deans or

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similar Faculty Officers of both institutions, at an external location provided that the Deans are satisfied that the necessary facilities exist for the pursuit of the special study or research and that it will be done under adequate supervision.

3. The Senatus Academicus shall have the power to permit candidates on the recommendation of the Dean to pursue elsewhere their special study and research during the whole or part of the period, provided that the Senatus is satisfied that the necessary facilities exist for the pursuit of the special study or research and that it is being done under adequate supervision.

4. Where a supervisor joins the staff of the University of St Andrews, the Dean shall have the power to admit the MPhil (by research route) or PhD students of that member of staff to the University, accrediting the research performed by that student in the previous institution. The student will be able to graduate with a degree from the University of St Andrews if the period of full registration at St Andrews equals or exceeds one year. If the student's full registration at St Andrews is less than one year, then the student can be admitted to the University but will have to submit the research for examination by the original institution. It is the incoming student's responsibility to ensure that such arrangements do not infringe the regulations of the original institution.

5. Work done during any academic year may be reckoned as having been pursued over twelve months for a full-time student and over six months for a part-time student, unless otherwise agreed by the Dean of Faculty on the recommendation of the supervisor.

6. Work done during a summer vacation may be reckoned as having been carried out during three months (six weeks for part-time students) provided that the supervisor certifies it as being equivalent to three months of full-time study (or six weeks study for part-time students).

7. The thesis shall be normally presented after 3 years and after no more than 4 years of study as a matriculated student or the equivalent for part-time students, except where external bodies stipulate otherwise. Exceptionally the thesis may be presented after 2 years of study as a matriculated student, or the equivalent for part-time students.

IX.   Submission and Examination of the MSc(Res) or MSt(Res) Thesis

1. The thesis shall be submitted not later than the end of the first year of study, or the equivalent period for a part-time or distance learning student. A candidate may apply for a further period of three months within which to submit the thesis. The thesis is expected to constitute an original contribution to knowledge consistent with what may reasonably be expected of a diligent student after one year of full-time research. It should be clearly written, well argued and should indicate a satisfactory knowledge of the field of study.

2. The thesis shall be written in English unless, where the original intention was a PhD, the Dean of Faculty has given special permission for another language to be used. The normal maximum length of the thesis will be 30,000 words, excluding bibliography.

3. At least one copy of the thesis shall be submitted according to the School requirements but shall not be required to be deposited in the University Library. A copy may, however, be retained in the School.

4. An abstract (not exceeding 300 words in length) of the thesis shall be submitted for the approval of the examiners. In the case of a thesis written in a foreign language there shall be a summary in English of between 1,000 and 3,000 words in addition to an abstract in English. The abstract (and, where appropriate, the summary) shall be included in with the thesis.

5. In exceptional circumstances the Dean of Faculty may give permission for the thesis to be presented in a different medium.

6. The introduction of the thesis shall be prefaced by:

   A. a declaration that the thesis has been composed by the candidate, and that the work of which it is a record has been done by that candidate, and that it has not been accepted in any previous application for any degree;

B. a statement of the date of the candidate's admission as a research student;

C. a statement by the supervisor that the Regulations have been fulfilled;

D. where a third party has been utilised to correct the written language in the thesis, a statement indicating that such assistance has been used.

7. The thesis will give evidence of the candidate's capacity for independent research.

8. Reprints of published papers are not accepted in lieu of the formal thesis, which should take the form of a specially composed monograph.

9. The thesis shall be examined by at least two internal examiners. The supervisor may not normally be a member of the examining committee, although the examining committee may invite the supervisor to submit a report and attend any oral examination deemed necessary by the examiners. In exceptional circumstances, the committee may recommend that an oral examination take place if the committee deem it necessary.

10. The examiners shall recommend to the Dean:

A. that the thesis be approved and the degree of MSt(Res) or MSc(Res) be awarded, save for the making of any purely typographical corrections or revisions; or

B. that the thesis be not accepted in its present form but that the candidate be given the opportunity to make minor corrections to the thesis within a period of three months of intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected, the thesis be approved and the degrees of MSt(Res) or MSc(Res) be awarded; or

C. that the thesis not be accepted in its present form but that the candidate be given the opportunity to revise the thesis and resubmit it for re-examination within six months of intimation to the candidate of the decision of the examining committee – this recommendation meaning that the candidate must resubmit a corrected thesis, pay any resubmission fee, and be re-examined; or

D. the the thesis be rejected, and no award made.

11. The Dean, once satisfied that all requirements have been observed, shall transmit the joint recommendation of the examiners to the Senatus Academicus.

X. Resubmission of the MSc(Res) or MSt(Res) Thesis

1. If a recommendation to the Senatus Academicus is made for resubmission by an examining committee the candidate shall receive in writing from the convener of the committee a detailed list of corrections and revisions deemed to be necessary by the examiners. The candidate shall be expected to take these into account in any resubmission of the thesis.

2. On resubmission of the thesis and payment of any required fee the examining committee shall be reconvened and a further examination be conducted. In exceptional circumstances, the convener of the committee may recommend that an oral examination take place if the committee deem it necessary.

3. In the event of an oral examination being required, the Dean may recommend the appointment of an appropriate neutral third-party observer.

4. If the original examining committee cannot be reconvened then the Senatus Academicus shall have the power to appoint a new committee to examine the thesis.

5. The examining committee shall make one of the following recommendations to the Senatus Academicus:
   A. that the thesis be approved and the degree of MSt(Res) or MSc(Res) be awarded; or
   B. that the thesis be approved and the degree of MSt(Res) or MSc(Res) be awarded subject to minor corrections to be completed within three months and approved by the convener; or
   C. that the thesis be rejected and no award made.

XI. Submission and Examination of the MPhil (by research route) Thesis

1. The thesis shall be submitted not later than the end of the second year of study, or the equivalent period for a part-time or distance-learning student. A candidate may be permitted a further period of six months within which to submit the thesis. The thesis is expected to constitute an original contribution to knowledge consistent with what may reasonably be expected of a diligent student after two years of full-time research. It should be clearly written, well argued and should indicate a satisfactory knowledge of the field of study.

2. The thesis shall be written in English unless, where the original intention was a PhD, the Dean of Faculty has given special permission for another language to be used. The normal maximum length of the thesis will be 60,000 words, excluding bibliography.

3. Three complete copies of the thesis shall be submitted in typescript and in secure but temporary binding. There shall be an adequate margin on each page. After the examination has been completed, one copy shall be bound in an approved style at the candidate's expense and shall be deposited in the University Library. The candidate shall also, unless previously agreed, provide an electronic copy of the thesis in an approved format.

4. An abstract (not exceeding 300 words in length) of the thesis shall be submitted for the approval of the examiners. In the case of a thesis written in a foreign language there shall be a summary in English of between 1,000 and 3,000 words, in addition to an abstract in English. The abstract (and, where appropriate, the summary) shall be bound in with the thesis.

5. In exceptional circumstances the Dean of Faculty may give permission for the thesis to be presented in a different medium.

6. The introduction to the thesis shall be prefaced by:
   A. a declaration that the thesis has been composed by the candidate, that the work of which it is a record has been done by that candidate, and that it has not been accepted in any previous application for any degree;
   B. a statement of the date of the candidate's admission as a research student;
   C. a statement by the supervisor that the Regulations have been fulfilled;
   D. a statement of access or embargo to print and/or electronic copy of the thesis; and
   E. where a third party has been utilised to correct the written language in the thesis, a statement indicating that such assistance has been used.

7. The thesis shall give evidence of the candidate's capacity for independent research.

8. Reprints of published papers are not accepted in lieu of the formal thesis, which should take the form of a specially composed monograph.

9. For the thesis at least two examiners shall be appointed, one of whom must be an external examiner. The supervisor may not normally be a member of the examining committee, although the examining committee may invite the supervisor to submit a report and attend any oral examination deemed necessary by the examiners.

10. The examiners shall recommend to the Dean:

A. that the thesis be approved and the degree of MPhil be awarded, subject to the making of any purely typographical corrections and revisions; or

B. that the thesis be not accepted in its present form but that the candidate be given the opportunity to make minor corrections to the thesis within a period of three months of intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected, the thesis be approved and the degree of MPhil be awarded; or

C. that the thesis be not accepted in its present form but that the candidate be given the opportunity to revise the thesis and resubmit it for re-examination within six months of intimation to the candidate of the decision of the examining committee - this recommendation meaning that the candidate must resubmit a corrected thesis, pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; or

D. that the thesis being of sufficient merit, the candidate be awarded the degree of MSc(Res) or MSt(Res); or

E. that the thesis be rejected, and that no award made.

11. The Dean, once satisfied that all requirements of the Regulations have been observed, shall transmit the joint recommendations of the examiners to the Senatus Academicus.

12. A student who has been admitted to the MPhil (by research route) may apply to the Senatus Academicus to submit a thesis for the award of the degree of MSc(Res) or MSt(Res) if they are unable or unwilling to fulfil the requirements of the MPhil.

XII. Resubmission of the MPhil (by research route) Thesis

1. If a recommendation to the Senatus Academicus is made for resubmission by an examining committee the candidate shall receive in writing from the convener of the committee a detailed list of corrections and revisions deemed to be necessary by the examiners. The candidate shall be expected to take these into account in any resubmission of the thesis.

2. On resubmission of the thesis and payment of the appropriate fee the examining committee shall be reconvened and a further examination be conducted. The convener of the committee may recommend to the Dean that the requirement of the oral examination be waived, if it is the unanimous opinion of the examining committee that the thesis should be accepted.

3. In the event of an oral examination being required, the Dean may recommend the appointment of an appropriate neutral third party observer.

4. If the original examining committee cannot be reconvened then the Senatus Academicus shall have the power to appoint a new committee to examine the thesis.

5. The examining committee shall make one of the following recommendations to the Senatus Academicus:

A. that the thesis be approved and the degree of MPhil be awarded; or

B. that the thesis be approved and the degree of MPhil be awarded subject to minor corrections to be completed within three months and approved by the convener; or

C. that the thesis being of sufficient merit, the candidate be awarded the degree of MSc(Res) or MSt(Res); or

D. that the thesis be rejected and no award made.

XIII. Nature of Study for the PhD by thesis or portfolio

1. The degree of PhD is granted only for original research or higher study the result of which is presented in a specially composed thesis or as a portfolio of published work. The original research or higher study must be carried out on a topic approved by the Head of School who shall appoint a supervisor. The thesis or portfolio shall constitute a significant and original contribution to knowledge or understanding consistent with what may reasonably be expected of a diligent student after three years of full-time study. It should be clearly written, well argued and should indicate a satisfactory knowledge of the field of study. It should contain material worthy of publication in some form.

2. Candidates for the degree of PhD may be examined by one of two methods. Normally the candidate will be expected to submit a thesis embodying the results of his or her special study or research. Alternatively, a candidate may apply to be examined for the degree of PhD on the basis of a portfolio of published work.

XIV. Presentation of PhD by Thesis

1. The thesis shall be written in English and should take the form of a specially composed monograph. In exceptional circumstances, or routinely for the School of Modern Languages, the Dean may give permission for another language to be used.

2. The normal maximum length of the thesis will be 80,000 words excluding bibliography.

3. Three complete copies of the thesis shall be submitted in typescript and in secure but temporary binding. There shall be an adequate margin on each page. After the examination has been completed, one copy shall be bound in an approved style at the candidate's expense and shall be deposited in the University Library. The candidate shall also, unless previously agreed, provide an electronic copy of the thesis in an approved format.

4. In exceptional circumstances the Dean may give permission for the thesis to be presented in a different medium.

5. An abstract (not exceeding 300 words in length) of the thesis shall be submitted for the approval of the examiners. In the case of a thesis written in a language other then English there shall be an English translation of the title, and a summary in English of between 2,000 and 3,000 words, in addition to an abstract in English. The abstract (and where appropriate, the summary) shall be bound in with the thesis.

6. The thesis shall be prefaced by:

   A. a declaration that the thesis has been composed by the candidate, that the work of which it is a record has been done by that candidate, and that it has not been accepted in any previous application for any degree;

   B. a statement of the date of the candidate's admission as a research student;

   C. a statement by the supervisor that the Regulations have been fulfilled;

   D. a statement of access to or embargo of the print and / or electronic version of the thesis; and

   E. where a third party has been utilised to correct the written language in the thesis, a statement indicating that such assistance has been used.

7. Where students have been admitted under regulation C.V.2 the following additional regulations shall apply:

   A. The thesis shall be prepared according to the joint agreements. The thesis will be written in a language agreed between the two institutions, which would normally be either English or, if the partner institution is overseas, the language used by the overseas institution.

B. An abstract of the thesis must be presented in English.

C. Two copies of the complete and finally approved thesis shall be submitted bound at the candidate's expense to be deposited in the University Library. In the case of the thesis not being written in the English language, a summary in English of between 2,000 and 3,000 words shall be bound in with the thesis.

D. In addition to any other declarations required to be made by the candidate for inclusion in the thesis, there shall be a declaration that the thesis has been composed by the candidate under a Joint Thesis Sponsorship scheme between the Universities of St Andrews and (the other institution) and that the work contained in this thesis has not been accepted in any previous application for a degree.

XV. **Examination of PhD by Thesis**

1. The Senatus Academicus shall appoint a committee to examine the thesis and report on it to the Senatus Academicus. The committee shall normally consist of two examiners, one of whom shall be an external examiner. An internal examiner shall be appointed, who (for administrative purposes) shall act as convener of the committee.

2. In the case of an employee of the University, the examining committee shall consist of an internal examiner who shall act as convener and two external examiners.

3. The examiners appointed by the Senatus Academicus shall submit independent written reports without consultation on the thesis. These independent reports must be completed and a copy returned to the Registry before any oral examination of the candidate takes place. In addition the supervisor of the thesis shall submit a written report to the examining committee detailing any special circumstance that may have affected the candidate's performance but making no comment relating to the quality of the work.

4. The committee shall require the candidate to submit to an oral examination. In exceptional circumstances and only with the express approval of the Dean the requirement of an oral examination may be waived.

5. The examining committee shall bear in mind that their judgement of the substantial significance of the thesis should take into account what may be reasonably expected of a capable and diligent student after three years of full-time study.

6. The examination of the thesis by the committee should normally be completed within three months of the date of submission. If the examining committee is unable to convene within three months then the Dean of Faculty shall be empowered to authorise a short extension of the examining period or to advise the Senatus Academicus that a new committee should be appointed.

7. No candidate may submit a thesis until the appropriate fee requirement has been met.

8. Where students have been admitted under C.V.2 the following additional regulations apply.

A. The examination of the thesis shall take place according to the rules and procedures of the lead institution subject to any additional clauses in the joint agreements.

B. The degree certificate must contain a form of words that makes it clear that the single degree is jointly awarded by the two institutions concerned.

C. Appointments of external examiners shall be agreed by both institutions.

9. The examining committee shall make one of the following recommendations to the Senatus Academicus:

    A. that the thesis or portfolio be approved and the degree of PhD/DLang be awarded without corrections; or

    B. that the thesis or portfolio be approved and the degree of PhD/DLang be awarded, subject to the making of any purely typographical corrections and revisions; or

    C. that the thesis or portfolio be not accepted in its present form but that the candidate be given the opportunity to make minor corrections to the thesis or portfolio within a period of three months of the intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected, the thesis be approved and the degree of PhD/DLang be awarded; or

    D. that the thesis or portfolio be not accepted in its present form but that the candidate be given the opportunity to revise the thesis or portfolio and resubmit it within twelve months of intimation to the candidate of the decision of the examining committee—this recommendation meaning that the candidate must resubmit a corrected thesis, pay a re-examination fee, and be re-examined, though the examiners have the right to waive a further oral examination; or

    E. that the thesis or portfolio not being of sufficient merit, the candidate may be given the opportunity to resubmit the thesis within twelve months for a further examination for the award of MPhil - this recommendation meaning that the candidate must resubmit a corrected thesis under the regulations for the degree of MPhil (by research), pay a re-examination fee, and be re-examined, though the examiners have the right to waive a further oral examination; this recommendation may be offered to the candidate at the same time as recommendation 9G as an alternative option; or

    F. that the thesis or portfolio not being of sufficient merit, the candidate may be awarded the MPhil (research), MSc(Res) or MSt(Res), where so qualified. This may only be offered as an alternative to 9D and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept; or

    G. that the thesis or portfolio be rejected and no award made. This may only be offered as an alternative to 9E and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept.

XVI. Presentation of PhD by Portfolio of Published Work

1. Academic staff of at least three years' standing or matriculated students may apply to the relevant Dean for permission to submit a portfolio of published work such as books or papers in refereed journals. The Dean shall seek the comments of the appropriate School on the acceptability of the submission and in the case of a submission by a matriculated student similar comments from the student's supervisor.

2. Any publications submitted must already be published and in the public domain.

3. The application shall be accompanied by the following documents:

    A. an abstract in English of the published work;

    B. details of the published work included in the portfolio; and

    C. approval from the holder(s) of copyrights if required; and

    D. in the event of the inclusion of works by multiple authors, a statement by the major author(s) of the publications indicating the candidate's contribution to the work in the three critical areas of conception, execution and writing; and

    E. where a third party has been utilised to correct the written language in the thesis, a

statement indicating that such assistance has been used.

4. The standard of the submission should be equivalent to that expected from a diligent student after a period of three years of full time study, depending on norms for the subject area, and be of scholarly standard expected for the degree of PhD.

5. Upon permission to submit being granted, the candidate shall submit three copies of the portfolio each containing the abstract and a critical discussion of the work.

6. The critical discussion should summarise the aims, objectives, methodology, results and conclusions covered in the portfolio. It should also indicate how the publications form a coherent body of work, what contributions the candidate has made to this work, and how the work contributes significantly to the expansion of knowledge. It should be at least 10,000 words, but not more than 25,000 words in length.

7. The portfolio shall be accompanied by a declaration that none of the work contained in the books or papers submitted has been submitted by the candidate for a higher degree in any other university.

XVII. Examination of PhD by Portfolio of Published Work

1. An examination fee, to be set annually by the university, shall be paid before the examination takes place.

1. Examination of a portfolio of work submitted for the PhD shall follow the same procedures as for a PhD by thesis with the following exceptions:

   A. Subject to the approval of the Dean, the School concerned may request that the examining committee should consist of an internal convener and two external examiners.

   A. In the event of jointly authored work being submitted the examining committee shall be required to comment upon the extent to which the candidate has contributed in the three critical areas of conception, execution and writing. They should indicate their approval that the combination of contributions in these areas is of the level expected for a PhD.

2. After the examination has been completed, two copies of the abstract, portfolio and critical discussion shall be bound in an approved style at the candidate's expense and shall be deposited in the University Library.

XVIII. Resubmission of PhD by Thesis or Portfolio

1. If a recommendation to the Senatus Academicus is made for resubmission by an examining committee the candidate shall receive in writing from the convener of the committee a detailed list of corrections and revisions deemed to be necessary by the examiners. The candidate shall be expected to take these into account in any resubmission of the thesis.

1. On resubmission of the thesis and payment of the appropriate fee the examining committee shall be reconvened and a further examination be conducted. The convener of the committee may recommend to the Dean of Faculty that the requirement of an oral examination be waived, if that is the unanimous opinion of the examining committee.

2. In the event of an oral examination being required, the Dean of Faculty may recommend the appointment of an appropriate neutral third party observer.

3. If the original examining committee cannot be reconvened, then the Senatus Academicus shall have the power to appoint a new committee to examine the thesis.

4. The examining committee shall make one of the following recommendations to the Senatus Academicus:

   A. that the thesis or portfolio be approved and the degree of PhD/DLang be awarded; or

   B. that the thesis or portfolio be approved and the degree of PhD/DLang be awarded subject to minor corrections to be completed within three months and approved by the convener; or

   C. that, the thesis or portfolio being of sufficient merit, the candidate be awarded the degree of MPhil (by research), MSc(Res) or MSt(Res); or

   D. that the thesis or portfolio be rejected and no award made.

D. DEGREE OF DOCTOR OF PHILOSOPHY IN CREATIVE WRITING (PhD)

I. Interpretation

1. In these Regulations, the following expressions shall have the meanings hereby assigned to them:

"Dean of Faculty" means the "Dean of the relevant Faculty or such other Faculty Officer to whom the responsibility has been delegated";

"Head of School" means the "Head of School or director of research institute or such other member of school or institute to whom the responsibility has been delegated".

"PhD" means "Doctor of Philosophy in Creative Writing"

"MPhil" means "Master of Philosophy"

"Degree" means "PhD in Creative Writing"

"portfolio" "means "body of work submitted for the Degree of PhD in Creative Writing"

II. Admission

1. The Senatus Academicus may admit as candidates for the Degree persons who have been admitted as research students of the University and who have been recommended to register as PhD students by the Dean of Faculty. In exceptional circumstances the Senatus Academicus may admit as a candidate for the degree a student who can satisfy the Dean of Faculty that (s)he already has adequate qualifications and for whom a supervisor can be appointed.

1. A PhD student shall matriculate and pay the appropriate fee each year.

III. Full-time and Part-time Study

1. Candidates in full-time employment may not register as full-time students except with the written permission of their employer. Members of staff of the University may be permitted to register full-time if:

   A. where they are funded from external sources, these bodies have given their permission;

   A. the work on which they are engaged as full-time employees of the University is of sufficient scope and originality as to be appropriate for study as part of a higher degree;

   B. the level and character of supervision offered to the member of staff is in no way incompatible with that normally associated with study for a higher degree.

1. Where full-time registration by a member of staff is approved the appropriate full-time fee will be payable. Notwithstanding, members of staff in either full-time or part-time employment may choose to study part-time. Other applicants, who are not members of staff, may study part-time if they can satisfy the Senatus Academicus that inadequate time is available for full-time study.

2. An applicant for admission as a part-time candidate for the degree must either:

   A. be a graduate of the University; or

   B. be normally resident within St Andrews or its immediate vicinity.

IV. Duration and Place of Study

1. Every candidate for the Degree shall pursue a course of special study in the University of St Andrews during a period of three years or its equivalent for part-time students.

1. The Senatus Academicus shall have the power to permit candidates on the recommendation of the Dean of Faculty to pursue elsewhere their special study during the whole or part of the period, provided that the Senatus is satisfied that the necessary facilities exist for the pursuit of the special study and that it is being done under adequate supervision.

2. Work done during any academic year may be reckoned as having been pursued over twelve months for a full-time student and over six months for a part-time student, unless otherwise agreed by the Dean of Faculty on the recommendation of the supervisor.

3. Work done during a summer vacation may be reckoned as having been carried out during three months (six weeks for part-time students) provided that the supervisor certifies it as being equivalent to three months of full-time study (or six weeks of full-time study for part-time students).

4. The submitted work shall be normally presented after three years and after no more than four years of study as a matriculated student or the equivalent for part-time students. Exceptionally the submitted work may be presented after two years of study as a matriculated student, or the equivalent for part-time students.

V. Nature of Study

1. The Degree is granted only for the submission of a body of work judged by the examiners to be of publishable standard, in whole or in large part, which demonstrates inventiveness in the generation of new ideas and images where these lead to new or enhanced insights.

1. All students and supervisors are required to conduct their work and supervision in accordance with the requirements of the University's policies for postgraduate research students.

2. All research students will undergo an annual progress review in accordance with the Policy on Progress Reviews and Termination of Studies for Postgraduate Research Students.

3. If serious problems emerge regarding a students's progress, their studies may be terminated in accordance with the Policy on Progress Reviews and Termination of Studies for Postgraduate Research Students.

VI. Methods of Presentation

1. Candidates for the Degree will be examined on the basis of (A) a portfolio of original work and (B) an accompanying research paper.

1. The submission will take the form of:

   A. a work of creative prose of no more than 40,000 words OR a collection, or part thereof, of poetry comprising 30-40 pages.

   A. a research paper (or discursive commentary or introductory essay) of no more than 40,000 words which shall link the portfolio of original work submitted under A to the larger history or theory or practice of relevant writing.

2. Both the quality of work submitted under A and B and the relationship between the work submitted under A and B will be relevant factors in deciding the success of the submission for the

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degree.

3. The work shall be written in English.

4. Three complete copies of the submission shall be submitted in typescript and in secure but temporary binding. There shall be an adequate margin on each page. After the examination has been completed, two copies shall be bound in an approved style at the candidate's expense and shall be deposited in the University Library. The third copy of the submission shall be returned to the candidate.

5. An abstract (not exceeding 300 words in length) of the submission shall be submitted for the approval of the examiners. The abstract shall be bound in with the thesis.

6. The submitted work shall be prefaced by:

    A. a declaration that the work has been composed by the candidate, and that is has not been accepted in any previous application for any degree; and

    A. a statement of the date of the candidate's admission as a research student; and

    B. a statement by the supervisor that the Regulations have been fulfilled; and

    C. a statement of access to or embargo of the print and / or electronic copy of the thesis.

VII. Portfolio of Published Work

1. Academic staff of at least three years' standing or matriculated students may apply to the Dean for permission to submit a portfolio of already published work, such as novels, collections of short stories or poems. The Dean shall seek the comments of the School of English on the acceptability of the submission and, in the case of a submission by a matriculated student, comments from the student's supervisor.

2. Any publications submitted must already be in the public domain.

3. The application shall be accompanied by the following documents:

    A. details of the published work included in the portfolio; and

    B. approval from the holder(s) of copyright if required.

4. The standard of the submitted portfolio shall be equivalent to that expected of a diligent student after a period of three years of full-time study and may comprise:

    A. a novel or collection of stories or other prose work between 60,000 and 80,000 words long, accompanied by an introduction, writer's journal, or other introductory and contextual material of between 8,000 and 10,000 words in length; or

    B. a collection of original poetry of not less than 50 pages in length, accompanied by an introduction, writer's journal, or other introductory or contextual material of at least 10,000 words and not more than 20,000 words in length.

5. Upon permission to submit being granted the candidate shall submit three copies of the portfolio.

6. The portfolio shall be accompanied by a declaration that none of the work submitted has been submitted by the candidate for a higher degree at any other university.

VIII. Examination

1. The Senatus Academicus shall appoint a committee to examine the portfolio and report on it to the Senatus Academicus. The committee shall normally consist of two examiners, one of whom shall be an external examiner. An internal examiner shall be appointed, who (for administrative purposes) shall act as convener of the committee.

2. Where the candidate is an employee of the University, the examining committee shall consist of

an internal examiner who shall act as convener and two external examiners.

3. The examiners appointed by the Senatus Academicus shall submit independent written reports without consultation on the portfolio. These independent reports must be completed and returned to the Registry before any oral examination of the candidate takes place. In addition, the supervisor shall submit a written report to the examining committee detailing any special circumstance that may have affected the candidate's performance but making no comment relating to the quality of the work.

4. The committee shall require the candidate to submit to an oral examination. In exceptional circumstances and only with the express approval of the Dean the requirement of an oral examination may be waived.

5. The examining committee shall bear in mind that their judgement of the quality of an unpublished portfolio of work should take into account what may be reasonably expected of a capable and diligent student after three years of full-time study.

6. The examination of the portfolio by the committee should normally be completed within three months of the date of submission. If the examining committee is unable to convene within three months then the Dean of Faculty shall be empowered to authorise a short extension of the examining period or to advise the Senatus Academicus that a new committee should be appointed.

7. No candidate may submit a portfolio until the appropriate fee requirement has been met. Candidates submitting a portfolio of already published work will be required to pay an examination fee before the examination takes place.

8. The examining committee shall make one of the following recommendations to the Senatus Academicus:

   A. that the thesis or portfolio be approved and the degree of PhD in Creative Writing be awarded without corrections; or

   B. that the thesis or portfolio be approved and the degree of PhD in Creative Writing be awarded, subject to the making of any purely typographical corrections and revisions; or

   C. that the thesis or portfolio be not accepted in its present form but that the candidate be given the opportunity to make minor corrections to the thesis or portfolio within a period of three months of the intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected, the thesis or portfolio be approved and the degree of PhD in Creative Writing be awarded; or

   D. that the thesis or portfolio be not accepted in its present form but that the candidate be given the opportunity to revise the thesis or portfolio and resubmit it within twelve months of intimation to the candidate of the decision of the examining committee—this recommendation meaning that the candidate must resubmit a corrected thesis or portfolio, pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; or

   E. that the thesis or portfolio not being of sufficient merit, the candidate be given the opportunity to resubmit the thesis or portfolio within twelve months for a further examination for the award of MPhil - this recommendation meaning that the candidate must

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resubmit a corrected thesis or portfolio under the regulations for the degree of MPhil (by research), pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; this recommendation may be offered to the candidate at the same time as recommendation 8G as an alternative option; or

F. that the thesis or portfolio not being of sufficient merit, the candidate be awarded the MPhil (by research) or MSt(Res), where so qualified. This may only be offered as an alternative to 8D and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept; or

G. that the thesis or portfolio be rejected and no award made. This may only be offered as an alternative to 8E and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept.

IX.   Resubmission

1. If a recommendation to the Senatus Academicus is made for resubmission by an examining committee the candidate shall receive in writing from the convener of the committee a detailed list of corrections and revisions deemed to be necessary by the examiners. The candidate shall be expected to take these into account in any resubmission.

2. On resubmission and payment of the appropriate fee the examining committee shall be reconvened and a further examination be conducted. The convener of the committee may recommend to the Dean of Faculty that the requirement of an oral examination be waived, if that is the unanimous opinion of the examining committee.

3. In the event of an oral examination being required, the Dean of Faculty may recommend the appointment of an appropriate neutral third party observer.

4. If the original examining committee cannot be reconvened then the Senatus Academicus shall have the power to appoint a new committee to examine the portfolio.

5. The examining committee shall make one of the following recommendations to the Senatus Academicus:

    A. that the thesis or portfolio be approved and the degree of PhD in Creative Writing be awarded; or

    B. that the thesis or portfolio be approved and the degree of PhD in Creative Writing be awarded subject to minor corrections to be completed within three months and approved by the convener; or

    C. that, the thesis or portfolio being of sufficient merit, the candidate be awarded the degree of MPhil (by research) or MSt(Res); or

    D. that the thesis or portfolio be rejected and no award made.

E. DEGREE OF DOCTOR OF ENGINEERING (DEng/EngD)

I.   Interpretation

1. In these Regulations, the following expressions shall have the meanings hereby assigned to them:

"Dean of Science" means the "Dean of Science or such other Faculty Officer to whom the responsibility has been delegated";

"Head of School" means the "Head of School or director of research institute or such other member of school or institute to whom the responsibility has been delegated".

"DEng/EngD" means "Doctor of Engineering".

II.   Admission

1. The Senatus Academicus may admit as candidates for the Degree of DEng/EngD persons who

have been admitted as research students of the University and who have been recommended to register as DEng/EngD students by the Dean.

2. A DEng/EngD student shall matriculate and pay the appropriate fee each year.

3. A DEng/EngD student must normally be a full time student.

4. The Head of School shall appoint for each candidate an academic supervisor and an external supervisor who shall jointly oversee the development of the candidate and shall supply support and advice regarding the project(s) on which the student is working. The external supervisor shall be a member of staff of the external organisation which is sponsoring the student.

III. Duration and Place of Study

1. Every candidate for the Degree of DEng/EngD shall pursue a course of special study and research normally lasting four years.

2. The course of study and research shall comprise:

   A. assessed coursework and attendance at lectures and colloquia in the University of St Andrews or in other universities participating in the Engineering Doctorate Scheme, amounting to approximately 25% of the time spent during the degree course;

   B. supervised research work comprising approximately 75% of the time spent during the degree course, and culminating in the submission of a thesis or a research portfolio. This work shall be carried out in the University of St Andrews or at the premises of the external organisation which is sponsoring the student, in variable proportions according to the nature of the research.

3. All research students and supervisors are required to conduct their research and supervision in accordance with the requirements of the University's policies for postgraduate research students.

4. All research students will undergo an annual progress review in accordance with the Policy on Progress Reviews and Termination of Studies for Postgraduate Research Students.

5. If serious problems emerge regarding a student's progress, their studies may be terminated in accordance with the Policy on Progress Reviews and Termination of Studies for Postgraduate Research Students.

IV. Thesis or portfolio

1. Every candidate for the Degree of DEng/EngD shall present a thesis or portfolio embodying the results of their special study or research.

2. A thesis should take the form of a specially composed monograph. A portfolio should take the form of documents such as published papers, unpublished papers containing original scientific or engineering investigations and/or analysis, patents etc together with an abstract in English which describes the contribution to knowledge and innovation demonstrated by the candidate.

3. The submission of a thesis shall follow the same rules and procedures as for the submission of a thesis for a PhD. The submission of a portfolio of published work shall follow the same rules and procedures as laid down for the submission of a portfolio of published work for a PhD with the exception that only registered DEng/EngD students are eligible.

4. The thesis or portfolio shall normally be presented after four years and no later than five years since first matriculation. Exceptionally the thesis or portfolio may be presented after three years

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since first matriculation.

V. The Examination

1. The examination of the thesis or portfolio of work shall follow the same rules and procedures as laid down for a PhD.

2. The examining committee shall make one of the following recommendations to the Senatus Academicus:

   A. that the thesis or portfolio be approved and the degree of DEng/EngD be awarded without corrections; or

   B. that the thesis or portfolio be approved and the degree of DEng/EngD be awarded subject to the making any purely typographical corrections and revisions; or

   C. that the thesis or portfolio be not accepted in its present form but that the candidate be given the opportunity to make minor corrections to the thesis or portfolio within a period of three months of the intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected, the thesis or portfolio be approved and the degree of DEng/EngD be awarded; or

   D. that the thesis or portfolio be not accepted in its present form but that the candidate be given the opportunity to revise the thesis or portfolio and resubmit it within twelve months of intimation to the candidate of the decision of the examining committee – this recommendation meaning that the candidate must resubmit a corrected thesis or portfolio, pay a resubmission fee, and be re-examined, thought the examiners have the right to waive a further oral examination; or

   E. that the thesis or portfolio not being of sufficient merit, the candidate be given the opportunity to resubmit the thesis or portfolio within twelve months for a further examination for the award of MPhil– this recommendation meaning that the candidate must resubmit a corrected thesis or portfolio under the regulations for the degree of MPhil (by research), pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; this recommendation may be offered to the candidate at the same time as recommendation G as an alternative option; or

   F. that the thesis or portfolio not being of sufficient merit, the candidate be awarded the degree of MPhil(by research) or MSc(Res) where so qualified This may only be offered as an alternative to 2D and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept; or

   G. that the thesis or portfolio be rejected and no award made. This may only be offered as an alternative to 2E and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept.

VI. Resubmission

1. The resubmission of the thesis or portfolio of work shall follow the same procedures as in the PhD regulations.

2. The examining committee shall make one of the following recommendations to the Senatus Academicus:

   A. that the thesis or portfolio be approved and the degree of DEng/EngD be awarded; or

   B. that the thesis or portfolio be approved and the degree of DEng/EngD be awarded, subject to minor corrections to be completed within three months and approved by the convener; or

   C. that, the thesis or portfolio being of sufficient merit, the candidate be awarded the degree of MPhil(by research) or MSc(Res); or

D.   that the thesis or portfolio be rejected and no award made.

F. DEGREE OF DOCTOR OF PERFORMING ARTS (DPERF)

I.   Interpretation

1.   In these Regulations, the following expressions shall have the meanings hereby assigned to them:

"Dean of Faculty" means the "Dean of the relevant Faculty or such other Faculty Officer to whom the responsibility has been delegated";

"DPerf" means the "Doctor of Performing Arts";

"MFA" means "Master of Fine Arts";

"Portfolio" means "body of work submitted for the Degree of DPerf, including any assessed performances".

II.   Admission

1.   The Senatus Academicus may admit as candidates for the degree of DPerf persons who have been admitted as research students of the University and who have been recommended to register as DPerf students by the Dean of Faculty. In exceptional circumstances the Senatus Academicus may admit as a candidate for the degree of DPerf a student who can satisfy the Dean of Faculty that (s)he already has adequate qualifications and for whom a supervisor can be appointed.

2.   A DPerf student shall matriculate on payment of the appropriate fee each year.

III.   Full-time and Part-time Study

1.   Candidates in full-time employment may only register as full-time students where there is written confirmation from the employer that a candidate will have sufficient time to dedicate to their studies, for instance where the DPerf is part of the candidate's professional development.

IV.   Duration and Place of Study

1.   Every candidate for the degree of DPerf at the Royal Conservatoire of Scotland will pursue a course of professional projects and supplementary studies and written work as set out in Regulation F.VI.1 during a period of not less than three years or its equivalent for part-time or flexibly programmed students.

V.   Nature of Study

1.   The degree of DPerf is granted only for the submission of a body of work judged by the examiners to represent an outstanding level of professional development by a performing artist. The work will make a significant contribution to the candidate's chosen artistic sphere. The candidate will be able to articulate the context for the work and how it enhances their artistic practice.

2.   All students and supervisors are required to comply with the requirements of the Royal Conservatoire of Scotland's Policy for Supervisors and Students in the Doctor of Performing Arts Programme.

3.   The work of all students will be reviewed annually and the results reported to the Research Degrees Committee at the Royal Conservatoire of Scotland.

4.   Where a student's progress is not considered satisfactory at the annual review, they will receive a letter outlining the concerns in detail, and details of work to be submitted for a second review

within 2-6 months as appropriate. If progress at the second review is not considered satisfactory, the Research Committee will request termination of studies in accordance with the Royal Conservatoire of Scotland's Policy for Supervisors and Students in the Doctor of Performing Arts Programme.

VI.   **Methods of Presentation**

1. Candidates for the degree will be examined on the basis of a portfolio comprising (A) a series of professional projects and (B) supplementary studies and (C) written work. The portfolio will take the form of:

   A. a series of professional projects (normally 4 major artistic projects and 1 development project). They will demonstrate an appropriately wide and deep professional practice at this level. They will form a coherent artistic unit.

   B. a collection of taught supplementary studies, chosen to complement the Professional Projects and designed to enrich and deepen the candidate's artistic practice. These may be theoretical, practical or research-related studies as appropriate.

   C. a body of written work which articulates the context for professional projects, and which reflects the student's artistic development and synthesises work undertaken in the supplementary studies. The written component will normally be 12,500-15,000 words (excluding bibliography and appendices).

2. The three elements are credit weighted. Across three years or part-time equivalent successful candidates will gain 360 credits for professional projects, and 120 credits for supplementary studies, and 60 credits for the written work. Credits for the supplementary studies may be awarded upon completion of approved taught modules but the credits for the professional projects and the written work will only be awarded following a successful viva voce examination. All credits must be obtained in order for the degree to be awarded.

3. The introduction to the portfolio will be prefaced by:

   A. a declaration that the work has been undertaken by the candidate and has not been presented for any other degree.

   B. a statement of the date of the candidate's admission as a student.

   C. a statement by the supervisor that the Regulations have been fulfilled.

   D. a statement of access to or embargo of the print and/ or electronic parts of the submission.

VII.   **The Examination**

1. The examination of the portfolio shall follow the same rules and procedures as laid down in the University of St Andrews Senate Regulations for PhD, except that:

   A. the Research Degrees Committee of the Royal Conservatoire of Scotland will appoint one internal convener and two external examiners.

2. The examining committee shall make one of the following recommendations to the Senatus Academicus:

   A. that the portfolio be approved and the degree of DPerf be awarded without corrections; or
   B. that the portfolio be approved and the degree of DPerf be awarded, subject to the making of any purely typographical corrections and revisions; or
   C. that the portfolio be not accepted in its present form but that the candidate be given the opportunity to make minor corrections within a period of three months of the intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected, the portfolio be approved and the degree of DPerf be awarded; or

D. that the portfolio be not accepted in its present form but that the candidate be given the opportunity to revise the portfolio and resubmit it within twelve months of intimation to the candidate of the decision of the examining committee – this recommendation meaning that the candidate must resubmit a corrected portfolio, pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; or

E. that, the portfolio submitted not being of sufficient merit, the candidate be give the opportunity to resubmit the portfolio within twelve months for a further examination for the award of MFA – this recommendation meaning that the candidate must resubmit a corrected portfolio under the regulations for the degree of MFA or appropriate equivalent postgraduate diploma, pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; this recommendation may be offered to the candidate at the same time as recommendation 2G as an alternative option; or

F. that, the portfolio not being of sufficient merit, the candidate be awarded the MFA or appropriate equivalent postgraduate diploma where so qualified. This may only be offered as an alternative to 2D and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept; or

G. that the portfolio be rejected and no award made. This may only be offered as an alternative to 2E and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept.

VIII. Resubmission

1. If a recommendation to the Senatus Academicus is made for resubmission by an examining committee, the candidate shall receive in writing from the convener of the committee a detailed list of corrections and revisions deemed to be necessary by the examiners. The candidate shall be expected to take these into account in any resubmission of the work.

2. On resubmission of the work and payment of the appropriate fee, the examining committee shall be reconvened and a further examination be conducted. The convener of the committee may recommend to the Dean of Faculty that the requirement of any oral examination be waived, if that is the unanimous opinion of the examining committee.

3. In the event of an oral examination being required, the Dean of Faculty may recommend the appointment of an appropriate neutral third party observer.

4. If the original examining committee cannot be reconvened, then the Senatus Academicus shall have the power to appoint a new committee to examine the work submitted.

5. The examining committee shall make one of the following recommendations to the Senatus Academicus:

   A. that the portfolio be approved and the degree of DPerf be awarded.

   B. that the portfolio be approved and the degree of DPerf be awarded subject to minor corrections to be completed within three months and approved by the convener; or

   C. that, the portfolio being of sufficient merit, the candidate be awarded the degree of MFA or appropriate equivalent postgraduate diploma; or

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D. that the portfolio be rejected and no award made.

G. DEGREE OF DOCTOR OF MEDICINE (MD) BY RESEARCH

There are two routes to the MD, one by research as set out below and one by submission of evidence research as set out in section I. Both are research degrees and neither are qualifications for clinical practice.

I. Interpretation

1. In these Regulations, the following expressions shall have the meanings hereby assigned to them:

"Dean of Faculty" means the "Dean of the relevant Faculty or such other Faculty Officer to whom the responsibility has been delegated";

"Head of School" means the "Head of School or director of research institute or such other member of school or institute to whom the responsibility has been delegated";

"MD" means "Doctor of Medicine". "MPhil" means "Master of Philosophy".

II. Admission

1. The Senatus Academicus may admit as candidates for the degree of MD persons who have been admitted as research students of the University and who have been recommended to register as MD students by the Dean of Faculty. In exceptional circumstances the Senatus Academicus may admit as a candidate for the degree of MD a student who can satisfy the Dean of Faculty that (s)he already has adequate qualifications and for whom a supervisor can be appointed.

2. A MD student shall matriculate on payment of the appropriate fee each year.

III. Full-time and Part-time Study

1. Candidates in full-time employment may not register as full-time students except with the written permission of their employer. Members of staff of the University may be permitted to register full-time if:

   A. where they are funded from external sources, these bodies have given their permission; and

   B. the work on which they are engaged as full-time employees of the University is of sufficient scope and originality as to be appropriate for study as part of a higher degree; and

   C. the level and character of supervision offered to the member of staff is in no way incompatible with that normally associated with study for a higher degree.

2. Where full-time registration by a member of staff is approved, the appropriate full-time fee will be payable. Notwithstanding, members of staff in either full-time or part-time employment may choose to study part-time. Other applicants, who are not members of staff, may study part-time if they can satisfy the Senatus Academicus that inadequate time is available for full-time study.

3. An applicant for admission as a part-time candidate for the degree must either:

   A. be a graduate of the University; or

   B. be normally resident within St Andrews or its immediate vicinity.

IV. Duration and Place of Study

1. Every candidate for the Degree of MD, except under 2 below, shall pursue a course of special study or research in the University of St Andrews during a period of two years or its equivalent for part-time students.

2. The Senatus Academicus shall have the power to permit candidates on the recommendation of the Dean to pursue elsewhere their special study and research during the whole or part of the period, provided that the Senatus is satisfied that the necessary facilities exist for the pursuit of the special study or research and that it is being done under adequate supervision.

3. Work done during any academic year may be reckoned as having been pursued over twelve months for a full-time student and over six months for a part-time student, unless otherwise agreed by the Dean of Faculty on the recommendation of the supervisor.

4. Work done during a summer vacation may be reckoned as having been carried out during three months (six weeks for part-time students) provided that the supervisor certifies it as being equivalent to three months of full-time study (or six weeks of full-time study for part-time students).

5. The thesis shall be normally presented after two years and after no more than four years of study as a matriculated student, or the equivalent for part-time students. The thesis will not be accepted less than two years after matriculation.

V. Nature of Study

1. The degree of MD is granted only for original research or higher study, the result of which is presented in a specially composed thesis. The original research or higher study must be carried out on a topic approved by the Head of School who shall appoint a supervisor. The thesis or portfolio shall constitute a significant and original contribution to knowledge or understanding consistent with what may reasonably be expected of a diligent student after two years of full-time study. It should be clearly written, well argued and should indicate a satisfactory knowledge of the field of study. It should contain material worthy of publication in some form.

2. All research students and supervisors are required to conduct their research and supervision in accordance with the requirements of the University's policies for postgraduate research students.

3. All research students will undergo an annual progress review in accordance with the Policy on Progress Reviews and Termination of Studies for Postgraduate Research Students.

4. If serious problems emerge regarding a student's progress, their studies may be terminated in accordance with the Policy on Progress Revewis and Termination of Studies for Postgraduate Research Students.

VI. Methods for Presentation

1. Candidates for the degree of MD will be expected to submit a thesis embodying the results of his or her special study or research.

VII. Thesis

1. The thesis shall be written in English and should take the form of a specially composed monograph. In exceptional circumstances the Dean may give permission for another language to be used.

2. The normal maximum length of the thesis will be 50,000 words excluding bibliography.

3. Three complete copies of the thesis shall be submitted in typescript and in secure but temporary binding. There shall be an adequate margin on each page. After the examination has been completed, two copies shall be bound in an approved style at the candidate's expense and shall be deposited in the University Library. The third copy of the thesis shall be returned to the candidate.

4. In exceptional circumstances the Dean may give permission for the thesis to be presented in a different medium.

5. An abstract (not exceeding 300 words in length) of the thesis shall be submitted for the approval

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of the examiners. In the case of a thesis written in a foreign language there shall be a summary in English of between 1,000 and 3,000 words, in addition to an abstract in English. The abstract (and where appropriate, the summary) shall be bound in with the thesis.

6. The thesis shall be prefaced by:

    A. a declaration that the thesis has been composed by the candidate, that the work of which it is a record has been done by that candidate, and that it has not been accepted in any previous application for any degree; and

    B. a statement of the date of the candidate's admission as a research student; and

    C. a statement by the supervisor that the Regulations have been fulfilled; and

    D. a statement that either access to the thesis in the University Library shall be unrestricted or that with the approval of the Dean access shall be restricted under stated conditions for a period up to a maximum of five years.

VIII.   Examination of Candidates Presenting by Thesis

1. The Senatus Academicus shall appoint a committee to examine the thesis and report on it to the Senatus Academicus. The committee shall normally consist of two examiners, one of whom shall be an external examiner. An internal examiner shall be appointed, who (for administrative purposes) shall act as convener of the committee.

2. In the case of an employee of the University, the examining committee shall consist of an internal examiner who shall act as convener and two external examiners.

3. The examiners appointed by the Senatus Academicus shall submit independent written reports without consultation on the thesis. These independent reports must be completed and a copy returned to the Registry before any oral examination of the candidate takes place. In addition, the supervisor of the thesis shall submit a written report to the examining committee detailing any special circumstance that may have affected the candidate's performance but making no comment relating to the quality of the work.

4. The committee shall require the candidate to submit to an oral examination. In exceptional circumstances and only with the express approval of the Dean, the requirement of an oral examination may be waived.

5. The examining committee shall bear in mind that their judgement of the substantial significance of the thesis should take into account what may be reasonably expected of a capable and diligent student after two years of full-time study.

6. The examination of the thesis by the committee should normally be completed within three months. If the examining committee is unable to convene within three months then the Dean of Faculty shall be empowered to authorise a short extension of the examining period or to advise the Senatus Academicus that a new committee should be appointed.

7. No candidate may submit a thesis until the appropriate fee requirement has been met.

8. The examining committee shall make one of the following recommendations to the Senatus Academicus:

    A. that the thesis be approved and the degree of MD be awarded without corrections; or

    B. that the thesis be approved and the degree of MD be awarded, subject to the making of any purely typographical corrections and revisions; or

    C. that the thesis be not accepted in its present form but that the candidate be given the opportunity to make minor corrections to the thesis within a period of three months of the intimation to the candidate of the decision of the examining committee and that, upon the convener of the committee being satisfied that these minor corrections have been effected,

the thesis be approved and the degree of MD be awarded; or

D.   that the thesis be not accepted in its present form but that the candidate be given the opportunity to revise the thesis and resubmit it within twelve months of intimation to the candidate of the decision of the examining committee – this recommendation meaning that the candidate must resubmit a corrected thesis, pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; or

E.   that the thesis not being of sufficient merit, the candidate be given the opportunity to resubmit the thesis within twelve months for a further examination for the award of MPhil – this recommendation meaning that the candidate must resubmit a corrected thesis under the regulations for the degree of MPhil (by research), pay a resubmission fee, and be re-examined, though the examiners have the right to waive a further oral examination; this recommendation may be offered to the candidate at the same time as recommendation 8G as an alternative option; or

F.   that the thesis not being of sufficient merit, the candidate be awarded the degree of MPhil (by research) or Msc(Res), where so qualified. This may only be offered as an alternative to 8D and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept; or

G.   that the thesis be rejected and no award made. This may only be offered as an alternative to 8E and the candidate must be given a period of two weeks from the intimation of the decision of the examining committee to decide which option to accept.

IX.   Resubmission

1.   If a recommendation to the Senatus Academicus is made for resubmission by an examining committee the candidate shall receive in writing from the convener of the committee a detailed list of corrections and revisions demmed to be necessary by the examiners. The candidate shall be expected to take these into account in any resubmission.

2.   On resubmission and payment of the appropriate fee the examining committee shall be reconvened and a further examination be conducted. The convener of the committee may recommend to the Dean of Faculty that the requirement of an oral examination be waived, if that is the unanimous opinion of the examining committee.

3.   In the event of an oral examination being required, the Dean of Faculty may recommend the appointment of an appropriate neutral third party observer.

4.   If the original examining committee cannot be reconvened then the Senatus Academicus shall have the power to appoint a new committee to examine the thesis.

5.   The examining committee shall make one of the following recommendations to the Senatus Academicus:

A.   that the thesis be approved and the degree of MD be awarded; or

B.   that the thesis be approved and the degree of MD be awarded subject to minor corrections to be completed within three months and approved by the convener; or

C.   that, the thesis being of sufficient merit, the candidate be awarded the degree of MPhil (by research) or MSc(Res); or

D.   that the thesis be rejected and no award made.

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H. DEGREE OF DOCTOR OF MEDICINE (MD) BY PORTFOLIO

I. Interpretation

1. In these regulations, the following expressions shall have the meanings hereby assigned to them:

"Court" means the "University Court of the University of St Andrews"

"Degree of Doctor of Medicine" means the "Degree of Doctor of Medicine in the University of St Andrews"

II. Qualifications for the Degree

1. The Senatus Academicus may admit a candidate for the Degree of Doctor of Medicine in recognition of a corpus of work of a professional standard attained over an extended period of no fewer than ten years, containing original and significant contributions to the advancement of knowledge and learning which has given the candidate international distinction in their particular field.

2. A candidate must be either:

    A. a graduate of the University of St Andrews who holds a qualifying degree in Medicine of at least ten years standing; or

    B. a professor in the University with no fewer than four years service since the date of their appointment.

III. Presentation of Material and Declaration by candidates

1. Each candidate for the Degree of Doctor of Medicine (by the submission route) shall present as evidence of fitness to receive the degree a specially composed thesis, or a published work, or a series of published papers, or any combination of these. The material so presented in evidence may either be entirely that of the candidate or carried out in collaboration with another person or persons, provided that, in the latter case, the contribution of the candidate can be clearly defined. The standard of work required for the Degree of Doctor of Medicine is a high one. The subject matter must be coherent and original and should form a contribution to the advancement of scientific knowledge of such substance and distinction as to give the candidate international distinction in some branch or branches of learning.

2. Such evidence as is presented in terms of regulation H.III.1 shall be accompanied by the appropriate fee and a declaration signed by the candidate certifying either:

    A. that the candidate is the sole author of the work; or

    B. that the candidate is the joint author of the work in collaboration with another person or persons who shall be named, in which case the declaration must also include a statement clearly defining the extent of the candidate's personal contribution to the joint work.

3. In each case, such declaration must also state the extent (if any) to which the work has been submitted in any previous application for any degree and the result of any such application. Work submitted in a successful application for any degree shall be disallowed. The Senatus Academicus shall have discretion to allow or disallow work submitted in an unsuccessful application.

    A. if after inquiry the Senatus Academicus is not satisfied with the declaration provided for in regulation H.III.2, the Senatus shall have power to refuse the application.

    B. if after inquiry the Senatus Academicus is satisfied with the said declaration it shall remit the work submitted to a Committee of Examiners as provided in regulation H.IV.

4. Two complete copies of the thesis or published work or of the series of published papers or any combination of these must be submitted. The Library shall have power to decide when and under what conditions these copies shall be available for consultation or borrowing but the copyright shall belong to the candidate.

IV. Committee of Examiners and Award of the Degree

1. For the purpose of examining the work submitted by a candidate, the Dean of the relevant faculty shall appoint a Committee consisting of two External Examiners selected from a list supplied by the School and two or more members of the teaching staff of the University of St Andrews, one of whom shall be of professorial standing, or recognised equivalent. If, following a report from the Committee of Examiners, the Dean is of the opinion that the work submitted constitutes an original and sufficiently substantial contribution to knowledge by the candidate, the candidate shall be awarded the degree.

V. Appeal Procedure

1. If, after the recommendation of the Examining Committee is approved and communicated, the candidate wishes to appeal against the Examining Committee's recommendation, then they should submit a Stage 1 Academic Appeal to the Proctor, as per the procedures and grounds laid down in the University's Policy on Student Academic Appeals. Such appeals should be raised by candidates within 5 working days of the results or other notification being issued.

I. DEGREE OF DOCTOR OF SCIENCE (DSc)

I. Interpretation

1. In these Regulations, the following expressions shall have the meanings hereby assigned to them:

"Court" means the "University Court of the University of St Andrews";

"Degree of Doctor of Science" means the "Degree of Doctor of Science in the University of St Andrews".

II. Qualifications for the Degree

1. The Senatus Academicus may admit a candidate for the Degree of Doctor of Science in recognition of a corpus of work of a professorial standard attained over an extended period of no fewer than ten years, containing original and significant contributions to the advancement of knowledge and learning which has given the candidate international distinction in their particular academic field.

2. A candidate must be either:

   A. a graduate of the University of St Andrews provided that no fewer than ten years have elapsed from the date of their doctorate or other recognised terminal degree; or

   B. a professor of the University with no fewer than four years service since the date of appointment.

III. Presentation of Material and Declaration by Candidates

1. Each candidate for the Degree of Doctor of Science shall present as evidence of fitness to receive the degree a specially composed thesis, or a published work, or a series of published papers, or any combination of these. The material so presented in evidence may either be entirely that of the candidate or carried out in collaboration with another person or persons, provided that, in the latter case, the contribution of the candidate can be clearly defined. The standard of work required for the Degree of Doctor of Science is a high one. The subject matter must be coherent and original and should form a contribution to the advancement of scientific knowledge of such substance and distinction as to give the candidate international distinction in some branch or branches of learning.

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2. Such evidence as is presented in terms of regulation I.III.1 shall be accompanied by a declaration signed by the candidate certifying either:

   A. that the candidate is the sole author of the work; or

   B. that the candidate is the joint author of the work in collaboration with another person or persons who shall be named, in which case the declaration must also include a statement clearly defining the extent of the candidate's personal contribution to the joint work.

3. In each case, such declaration must also state the extent (if any) to which the work has been submitted in any previous application for any degree and the result of any such application. Work submitted in a successful application for any degree shall be disallowed. The Senatus Academicus shall have discretion to allow or disallow work submitted in an unsuccessful application.

   A. If after inquiry the Senatus Academicus is not satisfied with the declaration provided for in I.III.2, the Senatus shall have power to refuse the application.

   B. If after inquiry the Senatus Academicus is satisfied with the said declaration it shall remit the work submitted to a Committee of Examiners as provided in regulation I.IV.

4. Two complete copies of the thesis or published work or of the series of published papers or any combination of these must be submitted. The Library shall have power to decide when and under what conditions these copies shall be available for consultation or borrowing but the copyright shall belong to the candidate.

IV. Committee of Examiners and Award of the Degree

1. For the purpose of examining the work submitted by a candidate, the Dean of the relevant faculty shall appoint a Committee consisting of two External Examiners selected from a list supplied by the School and two or more members of the teaching staff of the University of St Andrews, one of whom shall be of professorial standing, or recognised equivalent. If, following a report from the Committee of Examiners, the Dean is of the opinion that the work submitted constitutes an original and sufficiently substantial contribution to knowledge by the candidate, the candidate shall be awarded the degree.

V. Appeal Procedure

1. If, after the recommendation of the Examining Committee is approved and communicated, the candidate wishes to appeal against the Examining Committee's recommendation, then they should submit a Stage 1 Academic Appeal to the Proctor, as per the procedures and grounds laid down in the University's Policy on Student Academic Appeals. Such appeals should be raised by candidates within 5 working days of the results or other notification being issued.

J. DEGREE OF DOCTOR OF LETTERS (DLitt)

I. Interpretation

1. In these Regulations, the following expressions shall have the meanings hereby assigned to them:

"Court" means the "University Court of the University of St Andrews";

"Degree of Doctor of Letters" means the "Degree of Doctor of Letters in the University of St Andrews".

II. Qualifications for the Degree

1. The Senatus Academicus may admit a candidate for the Degree of Doctor of Letters in recognition of a corpus of work of a professorial standard attained over an extended period of no fewer than ten years, containing original and significant contributions to the advancement of knowledge and learning which has given the candidate international distinction in their particular academic field.

2. A candidate must be either:

A. a graduate of the University of St Andrews provided that no fewer than ten years have elapsed from the date of their doctorate or other recognised terminal degree, or

B. a professor in the University with no fewer than four years service since the date of their appointment.

III. Presentation of Material and Declaration by Candidates

1. Each candidate for the Degree of Doctor of Letters shall present as evidence of fitness to receive the degree a specially composed thesis, or a published work, or a series of published papers, or any combination of these. The material so presented in evidence may either be entirely that of the candidate or carried out in collaboration with another person or persons, provided that, in the latter case, the contribution of the candidate can be clearly defined. The standard of work required for the Degree of Doctor of Letters is a high one. The subject matter must be coherent and original and should form a contribution to the advancement of knowledge of the subject of such substance and distinction as to give the candidate international distinction in some branch or branches of learning.

2. Such evidence as is presented in terms of regulation J.III.1 shall be accompanied by a declaration signed by the candidate certifying either:

   A. that the candidate is the sole author of the work; or

   B. that the candidate is the joint author of the work in collaboration with another person or persons who shall be named, in which case the declaration must also include a statement clearly defining the extent of the candidate's personal contribution to the joint work.

3. In each case, such declaration must also state the extent (if any) to which the work has been submitted in any previous application for any degree and the result of any such application. Work submitted in a successful application for any degree shall be disallowed. The Senatus Academicus shall have discretion to allow or disallow work submitted in an unsuccessful application.

   A. If after inquiry the Senatus Academicus is not satisfied with the declaration provided for in J.III.2, the Senatus shall have power to refuse the application.

   B. If after inquiry the Senatus Academicus is satisfied with the said declaration it shall remit the work submitted to a Committee of Examiners as provided in regulation J.IV.

4. Two complete copies of the thesis or published work or of the series of published papers or any combination of these must be submitted. The Library shall have power to decide when and under what conditions these copies shall be available for consultation or borrowing but the copyright shall belong to the candidate.

IV. Committee of Examiners and Award of the Degree

1. For the purpose of examining the work submitted by a candidate, the Dean of the relevant faculty shall appoint a Committee consisting of two External Examiners selected from a list supplied by the School and two or more members of the teaching staff of the University of St Andrews, one of whom shall be of professorial standing, or recognised equivalent. If, following a report from the Committee of Examiners, the Dean is of the opinion that the work submitted constitutes an original and sufficiently substantial contribution to knowledge by the candidate, the candidate shall be awarded the degree.

V. Appeal Procedure

1. If, after the recommendation of the Examining Committee is approved and communicated, the candidate wishes to appeal against the Examining Committee's recommendation, then they should submit a Stage 1 Academic Appeal to the Proctor, as per the procedures and grounds laid down in the University's Policy on Student Academic Appeals. Such appeals should be raised by candidates within 5 working days of the results or other notification being issued.

K. AUDITING MODULES

1. Students may request permission to "audit" a module as an appropriate way of gaining additional knowledge or skills. Permission must be sought from the relevant Head of School who will determine whether and to what extent the student may attend lectures, seminars and/or practical sessions. Students will not receive a grade or any credit for the module and will not necessarily receive resources for the module or access to School facilities.

4 - School of Art History

Postgraduate Diploma	Museum and Gallery Studies
(this is also the Taught element of the MLitt and MPhil programme):	Museum and Gallery Studies, part-time
MLitt:	Art History
	History of Photography
	Museum and Gallery Studies
	Museum and Gallery Studies, part-time
MPhil:	Art History
	History of Photography
	Museum and Gallery Studies
	National Trust for Scotland Studies

5 - School of Biology

Postgraduate Certificate:	Sustainable Aquaculture (Vertebrates)
	Sustainable Aquaculture (Invertebrates)
Postgraduate Diploma:	Sustainable Aquaculture
MSc:	Ecosystem-Based Management of Marine Systems
	Marine Mammal Science
	Sustainable Aquaculture

6 - School of Chemistry

MSc:	Catalysis
	Chemical Science
MPhil:	Chemistry

7 - School of Classics

Postgraduate Diploma:	Classics
(this is also the Taught element of the MLitt and MPhil programmes):	
MLitt:	Classics
MPhil:	Classics

8 - School of Computer Science

Postgraduate Diploma:	Advanced Computer Science
	Advanced Computer Science (with English Language)
	Artificial Intelligence
	Artificial Intelligence (with English Language)
	Computer Communication Systems
	Computer Communication Systems (with English Language)
	Computing & Information Technology
	Computing & Information Technology (with English Language)
	Data-Intensive Analysis
	Human Computer Interaction
	Human Computer Interaction (with English Language)
	Information Technology
	Information Technology (with English Language)
	Management and Information Technology *(see Section 16)*
	Management and Information Technology (with English Language) *(see Section 16)*
	Software Engineering
	Software Engineering (with English Language)
MSc:	Advanced Computer Science
	Advanced Computer Science (with English Language)
	Artificial Intelligence
	Artificial Intelligence (with English Language)
	Computer Communication Systems
	Computer Communication Systems (with English Language)
	Computing & Information Technology
	Computing & Information Technology (with English Language)
	Data-Intensive Analysis
	Human Computer Interaction
	Human Computer Interaction (with English Language)
	Information Technology
	Information Technology (with English Language)
	Management & Information Technology *(see Section 16)*
	Management & Information Technology (with English Language) *(see Section 16)*
	Software Engineering
	Software Engineering (with English Language)
European Masters MSc:	Dependable Software Englineering
EngD:	Computer Science
MPhil:	Computer Science
	Artificial Intelligence
	Computing & Information Technology
	Data-Intensive Analysis
	Human Computer Interaction
	Information Technology
	Information Technology with Management
	Software Engineering

9 - School of Divinity

Postgraduate Diploma:	Bible and Contemporary World (local and distance learning mode)
MLitt:	Analytic and Exegetical Theology
	Bible and Contemporary World (local and distance learning mode)
	Biblical Languages and Literature
	Systematic and Historical Theology
	Theology, Imagination and the Arts

10 - Department of Earth and Environmental Sciences
MSc: Geochemistry
                                 Mineral Resources
                                 Oil and Gas Innovation

11 - School of Economics & Finance
MSc: Economics
                                 Finance
                                 Finance and Economics
                                 Money, Banking and Finance

12 - School of English
MLitt: Creative Writing
                                 Mediaeval English
                                 Mediaeval Studies (*see Section 16*)
                                 Modern and Contemporary Literature and Culture
                                 Postcolonial and World Literatures
                                 Romantic/Victorian Studies
                                 Shakespeare and Renaissance Literary Culture
                                 Women, Writing and Gender

MPhil: Mediaeval English
                                 Mediaeval Studies (*see Section 16*)
                                 Modern and Contemporary Literature and Culture
                                 Postcolonial and World Literatures
                                 Romantic/Victorian Studies
                                 Shakespeare and Renaissance Literary Culture
                                 Women, Writing and Gender

MFA: Creative Writing

13 - Department of Film Studies
MLitt: Film Studies

14 - Department of Geography & Sustainable Development

Postgraduate Certificate: Sustainable Development

Postgraduate Diploma: Sustainable Development
                                 Sustainable Development and Energy

MSc: Sustainable Development
                                 Sustainable Development and Energy
                                 Sustainable Development and Environmental Economics

                                 Sustainable Development and Environmental Economics

MRes: Human Geography /   Sustainable Development

15 - School of History

MLitt:	The Book. History and Techniques of Analysis
	Central and East European Studies
	Early Modern History
	Environmental History
	Intellectual History
	Legal and Constitutional History
	Mediaeval History
	Mediaeval Studies
	Middle Eastern History
	Modern History
	Reformation Studies
	Scottish Historical Studies
	Transnational, Global and Spatial History
MPhil:	The Book. History and Techniques of Analysis
	Central and East European Studies
	Early Modern History
	Environmental History
	Intellectual History
	Mediaeval History
	Mediaeval Studies
	Middle Eastern History
	Modern History
	Reformation Studies
	Scottish Historical Studies
	Transnational, Global and Spatial History

16 - Interdisciplinary Degrees

MLitt:	Management and Information Technology
	Management and Information Technology (with English Language)

17 - School of International Relations

Postgraduate Diploma:	
(this is also the Taught element of	
the MLitt programmes):	Terrorism and Political Violence (full time mode)
	Terrorism and Political Violence (distance learning mode)
MLitt:	International Political Theory
	International Security Studies
	Middle Eastern and Central Asian Security Studies
	Peace and Conflict Studies
	Strategic Studies
	Terrorism and Political Violence (full time mode)
	Terrorism and Political Violence (distance learning mode)
MPhil:	International Political Theory
	International Security Studies
	Middle Eastern and Central Asian Security Studies
	Peace and Conflict Studies
	Strategic Studies

18 - School of Management

MLitt:	Human Resource Management
	International Business
	Management
	Marketing
MSc:	Banking and Finance
	Finance and Management
	Management and Information Technology *(see Section 16)*
MRes:	Management Studies

19 - School of Mathematics & Statistics

Postgraduate Diploma:	Applied Statistics and Datamining
MSc:	Applied Statistics and Datamining
	Mathematics
	Statistics

20 - School of Medicine

MSc:	Global Health Implementation
	Health Psychology

21 - School of Modern Languages

MLitt:	Central and Eastern European Studies *(see section 15)*
	Comparative Literature
	Cultural Identity Studies
	French Studies
	German Studies
	Italian Studies
	Mediaeval Studies *(see section 15)*
	Middle Eastern Literary and Cultural Studies
	Russian Studies
	Spanish and Latin American Studies
MLitt Mundus Masters (EU):	Crossways in Cultural Narratives
MLitt/MA:	German and Comparative Literature
MPhil:	Arabic
	Central and Eastern European Studies *(see section 15)*
	Comparative Literature
	Cultural Identity Studies
	French
	German
	Hispanic Studies
	Italian
	Mediaeval Studies *(see section 15)*
	Middle Eastern Literary and Cultural Studies
	Russian Studies
	Spanish and Latin American Studies

22 - Department of Philosophy

Graduate Diploma (Conversion):   Philosophy

MLitt:
Epistemology, Mind and Language
History of Philosophy
Logic and Metaphysics
Moral, Political and Legal Philosophy
Philosophy

MPhil:
Philosophy

23 - School of Physics & Astronomy

MSc:
Astrophysics
Photonics and Optoelectronic Devices

EngD:
Photonics

24 - School of Psychology & Neuroscience

Postgraduate Certificate:
Adults with Learning Disabilities who have Significant and Complex Needs
The Psychology of Dementia Care

Postgraduate Diploma:
Adults with Learning Disabilities who have Significant and Complex Needs

MSc:
Adults with Learning Disabilities who have Significant and Complex Needs
Evolutionary and Comparative Psychology: The Origins of Mind
Health Psychology
Research Methods in Psychology
Psychology (Conversion)

MRes:
Neurosciece

25 - Department of Social Anthropology

MRes:
Anthropology, Art and Perception
Social Anthropology
Social Anthropology and Amerindian Studies
Social Anthropology with Pacific Studies

MPhil:
Anthropology, Art and Perception
Social Anthropology
Social Anthropology and Amerindian Studies
Social Anthropology with Pacific Studies

26 - Social Science Modules

School of Art History

Taught Programmes

Postgraduate Diploma:
(this is also the Taught element of the MLitt and MPhil programme):

Museum and Gallery Studies
Museum and Gallery Studies, part-time

MLitt:
Art History
History of Photography
Museum and Gallery Studies
Museum and Gallery Studies, part-time

MPhil:
Art History
History of Photography
Museum and Gallery Studies
National Trust for Scotland Studies *(See Museum and Gallery Studies)*

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Letters Art History

Programme Requirements:

Art History - MLitt
AH5100 (30 credits) **and** 90 credits from Module List: AH5076 - AH5200 **and** (AH5099 (60 credits) **or** AH5200 (60 credits))

MPhil: 120 credits from MLitt taught element (excluding AH5099 or AH5200) plus a thesis of not more than 40,000 words

Compulsory module:

AH5100 Themes in Art History				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module, designed for those enrolled for the MLitt and MPhil in Art History, will introduce students to a selection of key issues, concepts, and writings in the field. It will enable students to appreciate how art history constitutes itself as a discourse, via core case studies and themes.				
Programme module type:	Compulsory for Art History MLitt Programme. Optional for History of Photography with the approval of the course coordinator.			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5 hour seminars (x 11 weeks) and occasional fieldwork			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr L Goddard			
Module teaching staff:	Team taught			

Compulsory module – for the MLitt:

AH5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of 15,000 words must be submitted by the middle of August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School.			
Pre-requisite(s):	Students should have finished 120 credits at 5000 level, or 90 credits at 5000 level and 30 at 4000 level			
Anti-requisite(s):	AH5200			
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Dr L Goddard			
Module teaching staff:	Team taught			

OR

AH5200 Ecole du Louvre Summer Study				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	not applicable.			
This is a 5000-level module, to be taken during the Summer term. It replaces AH5099 for those students in the History of Art, History of Photography, or Museum & Gallery Studies MLitt programme who have been selected for the Erasmus exchange program with the Ecole du Louvre. With this module, students will write an assessed assignment based on their experience in Paris during their summer programme, and write a correspondingly shorter dissertation than is required by AH5099. At the Ecole du Louvre, they will write a 4,000 word assignment. They will then return to St Andrews to finish their dissertation of 11,000 words. Students are expected to arrange and pay for their own travel and accommodation.				
Programme module type:	Optional replacement for AH5099 for those students in the History of Art, History of Photography and Museum & Gallery Studies MLitt programmes who have been selected for the Erasmus exchange programme with the Ecole du Louvre.			
Pre-requisite(s):	Students should have finished 120 credits at 5000 level, or 90 credits at 5000 level and 30 at 4000 level			
Anti-requisite(s):	AH5099			
Learning and teaching methods and delivery:	**Weekly contact**: 10 hours of seminars (x 3 weeks), 20 hours of fieldwork (x 3 weeks), 8 hours of meetings with supervisor in total.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	TBC			
Module teaching staff:	Team taught			

Optional modules:

AH5140 The University of St Andrews Photographic Collection				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module will explore, interpret and analyse photographic materials in the University of St Andrews Special Collections. The collection holds a fascinating range of 19th and 20th century photographic works including some of the most prized treasures in the photographic canon; this includes work by Hill and Adamson, Sir David Brewster, and William Henry Fox Talbot, as well as contemporary photography. The module is, therefore, object-based and will familiarise students with the special properties of archival resources, their study, maintenance and display. Given the practical dimensions of this module students will be expected to spend time in the archive of self-directed study. This study will be facilitated and guided by academic and library staff where appropriate.				
Programme module type:	Optional for Art History and History of Photography Postgraduate programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork			
Assessment pattern:	Coursework = 100%			
Module coordinator:	TBC			

AH5146 Issues in Photographic Criticism

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module provides an introduction to key writings and debates in the history of photographic criticism from the 1830s to the present day. Our aim is to investigate the historical and methodological questions raised by critical approaches to photography and to provide a good grounding in the major issues and debates in the history of the medium. Among other themes, we will examine the social meanings of photography, the contested nature of its critical terms, its institutional status and curatorial practices, and the relevance of photography for debates on modern subjectivity and identity politics.

Programme module type:	Compulsory for History of Photography Postgraduate Programme. Optional for Art History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5. hour seminar (x 11 weeks) and occasional fieldwork.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5162 Art and Technology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	TBC
Planned timetable:	To be arranged.			

In this module students will consider a series of technologies and ask: how has this technology inflected how images are made and consumed, what subjects are represented, and even what constitutes an image at all? Individual sessions will address common themes of, among other things, production and reproduction, labor and skill, reception history, and medium specificity. Over the course of the module, students will also be introduced to various scholarly and theoretical frameworks for addressing the relationship between technology and image-making.

Programme module type:	Optional for Art History Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5 hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5163 Representation and the Body

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module examines representations of the body from the early modern period to the contemporary moment. Rather than offering an exhaustive historical survey, however, it will focus on key episodes in the history of art in which representations of the body were consolidated, transformed, or contested. More focused individual lectures will be complemented by discussion of versatile historical and theoretical texts that equip students with a sophisticated range of methodological tools for engaging with the body. Throughout the course, recurring themes such as gender, subjectivity, materiality, and labour will encourage students to examine representation and the body within as well as across historical and geographical contexts.

Programme module type:	Optional for Art History. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5164 The Book as Object and Idea

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will consider the book as cultural artefact and idea as well as repository of information and vehicle for conveying the messages contained in texts and images. It will work with a broad definition of the book, which has space for accounting and commonplace books, diaries and formularies, fiction and non-fiction books, private and public books, religious and secular books, and more. The seminars and field-trips involved will foster an appreciation of the physical, phenomenological book, by looking closely at individual copies and considering their purposes, use, and (where relevant) provenance and descent. The aim is to explore a phenomenon whose importance to European culture is so fundamental that its conceptual complexity is often taken for granted. The course will foreground art historical and bibliographical approaches to the book, and will involve several visits to collections in and around St Andrews. These visits will in some cases take the place of regular classroom sessions.

Programme module type:	Optional for Art History. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5165 The Classical Tradition

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The module examines the role of ancient civilisation in shaping the arts and ideas of later culture. The topics expand from the Middle Ages to the present day, effectively spanning the main period divisions of art history. A variety of selective studies presents ways in which classical culture was understood and exploited in different cultural environments. Broadly oriented geographically and chronologically, the module considers definitions of the classical, permutations and appropriations of classical forms and ideals, as well as changing attitudes to the classical past.

Programme module type:	Optional for Art History. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5166 The Image of the Artist

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

For at least six centuries, western civilisation has viewed the visual arts as the creations of named individuals. The highest artistic achievements of an age have served as an invitation to examine the character and qualities of their makers, the artists. This module will encourage students to reflect on what it means to engage with art in this way. It will examine how the image of the artist has changed over the centuries, from the sixteenth century to the present day. Topics to be explored will include: how artists portray themselves, how they are characterized in novels, what we mean by genius, or creativity, and whether art history always needs to be structured around lifetimes, intentionality, biography and proper names.

Programme module type:	Optional for Art History. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5167 Writing on the Visual

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module examines verbal responses to the visual, from the origins of art criticism as a literary genre, to contemporary modes of art writing. It will explore varieties of ekphrasis, including poetic and fictional responses to works of art, as well as works of art that incorporate text. We will also address moments of 'crisis' in which the operations of criticism are called into question, and will consider the contributions that artists have made, both in resisting and in contributing to writing on art.

Programme module type:	Optional for Art History.
	Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5168 The Documentary Impulse

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This MLitt module will explore the complex relationship between photography and concepts of "documentary" and "the document" during the twentieth century, and into the twenty-first. It will address a range of issues and practices in relation to key socio-political events and ideas, from the emergence of documentary photography in the first half of the twentieth century, particularly in the US and Europe, through to the questioning and subversion of this legacy from the 1970s onwards, particularly in relationship to conceptual and performance art. We will address the changing relationship between photography and durational media such as film and video, as well as the impact of digital technology. By following the trajectory of various "documents" across the time-period, the module will enable us to address a range of geographic sites, together with photograph's role in mass reproduction and mediatisation on a global level, as well as trends in recent curatorial and exhibition practice.

Programme module type:	Optional for Art History and History of Photography
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

Master of Letters History of Photography

Programme Requirements

History of Photography - MLitt
AH5146 (30 credits) **and** 90 credits from Module List: AH5100, AH5101, AH5102, AH5111, AH5140, AH5141, AH5143, AH5160-AH5168 **and** (AH5099 (60 credits) **or** AH5200 (60 credits))

MPhil: 120 credits from MLitt taught element (excluding AH5099 or AH5200) plus a thesis of not more than 40,000 words

Compulsory module:

AH5146 Issues in Photographic Criticism				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module provides an introduction to key writings and debates in the history of photographic criticism from the 1830s to the present day. Our aim is to investigate the historical and methodological questions raised by critical approaches to photography and to provide a good grounding in the major issues and debates in the history of the medium. Among other themes, we will examine the social meanings of photography, the contested nature of its critical terms, its institutional status and curatorial practices, and the relevance of photography for debates on modern subjectivity and identity politics.				
Programme module type:	Compulsory for History of Photography Postgraduate Programme. Optional for Art History Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5. hour seminar (x 11 weeks) and occasional fieldwork.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	TBC			
Module teaching staff:	Team taught			

Compulsory module – for the MLitt:

AH5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of 15,000 words must be submitted by the middle of August.

Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School.
Pre-requisite(s):	Students should have finished 120 credits at 5000 level, or 90 credits at 5000 level and 30 at 4000 level
Anti-requisite(s):	AH5200
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Dissertation = 100%
Module coordinator:	Dr L Goddard
Module teaching staff:	Team taught

OR

AH5200 Ecole du Louvre Summer Study

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	not applicable.			

This is a 5000-level module, to be taken during the Summer term. It replaces AH5099 for those students in the History of Art, History of Photography, or Museum & Gallery Studies MLitt programme who have been selected for the Erasmus exchange program with the Ecole du Louvre. With this module, students will write an assessed assignment based on their experience in Paris during their summer programme, and write a correspondingly shorter dissertation than is required by AH5099. At the Ecole du Louvre, they will write a 4,000 word assignment. They will then return to St Andrews to finish their dissertation of 11,000 words. Students are expected to arrange and pay for their own travel and accommodation.

Programme module type:	Optional replacement for AH5099 for those students in the History of Art, History of Photography and Museum & Gallery Studies MLitt programmes who have been selected for the Erasmus exchange programme with the Ecole du Louvre.
Pre-requisite(s):	Students should have finished 120 credits at 5000 level, or 90 credits at 5000 level and 30 at 4000 level
Anti-requisite(s):	AH5099
Learning and teaching methods and delivery:	**Weekly contact**: 10 hours of seminars (x 3 weeks), 20 hours of fieldwork (x 3 weeks), 8 hours of meetings with supervisor in total.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

Optional modules:

AH5100 Themes in Art History

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module, designed for those enrolled for the MLitt and MPhil in Art History, will introduce students to a selection of key issues, concepts, and writings in the field. It will enable students to appreciate how art history constitutes itself as a discourse, via core case studies and themes.

Programme module type:	Compulsory for Art History MLitt Programme. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5 hour seminars (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	Dr L Goddard
Lecturer(s)/Tutor(s):	Team taught

AH5140 The University of St Andrews Photographic Collection

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will explore, interpret and analyse photographic materials in the University of St Andrews Special Collections. The collection holds a fascinating range of 19th and 20th century photographic works including some of the most prized treasures in the photographic canon; this includes work by Hill and Adamson, Sir David Brewster, and William Henry Fox Talbot, as well as contemporary photography. The module is, therefore, object-based and will familiarise students with the special properties of archival resources, their study, maintenance and display. Given the practical dimensions of this module students will be expected to spend time in the archive of self-directed study. This study will be facilitated and guided by academic and library staff where appropriate.

Programme module type:	Optional for Art History and History of Photography Postgraduate programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	TBC

AH5162 Art and Technology

SCOTCAT Credits:	30	SCQF Level 11	Semester:	TBC
Planned timetable:	To be arranged.			

In this module students will consider a series of technologies and ask: how has this technology inflected how images are made and consumed, what subjects are represented, and even what constitutes an image at all? Individual sessions will address common themes of, among other things, production and reproduction, labor and skill, reception history, and medium specificity. Over the course of the module, students will also be introduced to various scholarly and theoretical frameworks for addressing the relationship between technology and image-making.

Programme module type:	Optional for Art History Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5 hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5163 Representation and the Body

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module examines representations of the body from the early modern period to the contemporary moment. Rather than offering an exhaustive historical survey, however, it will focus on key episodes in the history of art in which representations of the body were consolidated, transformed, or contested. More focused individual lectures will be complemented by discussion of versatile historical and theoretical texts that equip students with a sophisticated range of methodological tools for engaging with the body. Throughout the course, recurring themes such as gender, subjectivity, materiality, and labour will encourage students to examine representation and the body within as well as across historical and geographical contexts.

Programme module type:	Optional for Art History. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5164 The Book as Object and Idea

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will consider the book as cultural artefact and idea as well as repository of information and vehicle for conveying the messages contained in texts and images. It will work with a broad definition of the book, which has space for accounting and commonplace books, diaries and formularies, fiction and non-fiction books, private and public books, religious and secular books, and more. The seminars and field-trips involved will foster an appreciation of the physical, phenomenological book, by looking closely at individual copies and considering their purposes, use, and (where relevant) provenance and descent. The aim is to explore a phenomenon whose importance to European culture is so fundamental that its conceptual complexity is often taken for granted. The course will foreground art historical and bibliographical approaches to the book, and will involve several visits to collections in and around St Andrews. These visits will in some cases take the place of regular classroom sessions.

Programme module type:	Optional for Art History.
	Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5165 The Classical Tradition

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The module examines the role of ancient civilisation in shaping the arts and ideas of later culture. The topics expand from the Middle Ages to the present day, effectively spanning the main period divisions of art history. A variety of selective studies presents ways in which classical culture was understood and exploited in different cultural environments. Broadly oriented geographically and chronologically, the module considers definitions of the classical, permutations and appropriations of classical forms and ideals, as well as changing attitudes to the classical past.

Programme module type:	Optional for Art History.
	Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5166 The Image of the Artist

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

For at least six centuries, western civilisation has viewed the visual arts as the creations of named individuals. The highest artistic achievements of an age have served as an invitation to examine the character and qualities of their makers, the artists. This module will encourage students to reflect on what it means to engage with art in this way. It will examine how the image of the artist has changed over the centuries, from the sixteenth century to the present day. Topics to be explored will include: how artists portray themselves, how they are characterized in novels, what we mean by genius, or creativity, and whether art history always needs to be structured around lifetimes, intentionality, biography and proper names.

Programme module type:	Optional for Art History. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5167 Writing on the Visual

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module examines verbal responses to the visual, from the origins of art criticism as a literary genre, to contemporary modes of art writing. It will explore varieties of ekphrasis, including poetic and fictional responses to works of art, as well as works of art that incorporate text. We will also address moments of 'crisis' in which the operations of criticism are called into question, and will consider the contributions that artists have made, both in resisting and in contributing to writing on art.

Programme module type:	Optional for Art History. Optional for History of Photography with the approval of the course coordinator.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

AH5168 The Documentary Impulse					
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged				

This MLitt module will explore the complex relationship between photography and concepts of "documentary" and "the document" during the twentieth century, and into the twenty-first. It will address a range of issues and practices in relation to key socio-political events and ideas, from the emergence of documentary photography in the first half of the twentieth century, particularly in the US and Europe, through to the questioning and subversion of this legacy from the 1970s onwards, particularly in relationship to conceptual and performance art. We will address the changing relationship between photography and durational media such as film and video, as well as the impact of digital technology. By following the trajectory of various "documents" across the time-period, the module will enable us to address a range of geographic sites, together with photograph's role in mass reproduction and mediatisation on a global level, as well as trends in recent curatorial and exhibition practice.

Programme module type:	Optional for Art History and History of Photography
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 11 weeks) and occasional fieldwork
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

Master of Letters Museum and Gallery Studies

Programme Requirements:

Museum and Gallery Studies - PG Dip
AH5504 (40 credits) **and** AH5505 (40 credits) **and** AH5506 (40 credits)

Museum and Gallery Studies - MLitt
AH5504 (40 credits) **and** AH5505 (40 credits) **and** AH5506 (40 credits) **and** AH5099 (60 credits)

Museum and Gallery Studies (part-time) - MLitt
120 credits from Module List: AH5560 - AH5562 AH5099 (60 credits) **and** 40 credits from Module List: AH5560 - AH5562

MPhil: 120 credits from MLitt taught element (excluding AH5099) plus a thesis of not more than 40,000 words based normally on research undertaken in close conjunction with a Museum or Gallery.

National Trust for Scotland Studies

MPhil: 120 credits from MLitt taught element (excluding AH5099) plus a thesis of not more than 40,000 words based normally on research undertaken in close conjunction with the National Trust for Scotland

Compulsory modules – full time programme:

AH5504 Theory and Practice of Museums, Art Galleries and Related Organisations, Part 1: Collections in Context

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	All day Tue			

This module is only available to students taking the full-time Postgraduate Diploma, MLitt or M.Phil. in Museum and Gallery Studies or M.Phil. in National Trust for Scotland Studies. Together with AH5505-AH5506 it forms an essential part of a vocational training programme which combines knowledge and skills development to prepare students for work in the museums/galleries/heritage sector or for further research in this area. Subjects covered include: museum definitions and museum professions; types of museums and museum support systems; history of collecting and museums; current issues and ethics; museum standards schemes; acquisition and disposal policies and practices; collections documentation; collections care and preventive and remedial conservation; security and insurance; collections-based research.

Programme module type:	Compulsory for full-time Museum and Gallery Studies and National Trust for Scotland Studies Postgraduate Programmes.		
Co-requisite(s):	AH5505, AH5506	**Anti-requisite(s):**	AH5560
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar, also practical classes and field trips.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Ms A Gunn		
Module teaching staff:	Team taught		

AH5505 Theory and Practice of Museums, Art Galleries and Related Organisations, Part 2: Audiences and Management

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	All day Tue.			

This module is only available to students taking the full-time Postgraduate Diploma, MLitt or M.Phil. in Museum and Gallery Studies or M.Phil. in National Trust for Scotland Studies. Together with AH5504 and AH5506 it forms an essential part of a vocational training programme which combines knowledge and skills development to prepare students for work in the museums/galleries/heritage sector or for further research in this area. Subjects covered include: understanding audiences; information services, temporary and permanent exhibitions; display and interpretation; education services and outreach; ethics and current issues; governing bodies and administration; forward planning; project management; finances and fundraising; personnel management; marketing, publicity and media relations.

Programme module type:	Compulsory for full-time Museum and Gallery Studies and National Trust for Scotland Studies Postgraduate Programmes.		
Co-requisite(s):	AH5504, AH5506	**Anti-requisite(s):**	AH5561
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar, also practical classes and field trips.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr U Weiss		
Module teaching staff:	Team taught		

AH5506 Project Work (Museum and Gallery Studies)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	Wednesday morning.			

This module is only available to students taking the full-time Postgraduate Diploma, MLitt or M.Phil. in Museum and Gallery Studies or M.Phil. in National Trust for Scotland Studies. Together with AH5504 and AH5505 it forms an essential part of a vocational training programme which combines knowledge and skills development to prepare students for work in the museums/galleries/heritage sector or for further research in this area. This module provides most of the practical skills element of the programme. The practical work undertaken can vary, depending on the particular interests of individual students, but it will normally include: (i) experience of preparing an exhibition as part of a team, including research, selection of exhibits, production of written materials, mounting of displays and provision of educational events; (ii) another, individual project, selected by the student and covering another area of museum work, e.g. collections management, museum outreach activities or museum management.

Programme module type:	Compulsory for full-time Museum and Gallery Studies and National Trust for Scotland Studies Postgraduate Programmes.		
Co-requisite(s):	AH5504, AH5505	**Anti-requisite(s):**	AH5562
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar per week and practical work.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Ms A Gunn		
Module teaching staff:	Team taught		

AH5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of 15,000 words must be submitted by the middle of August.

Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School.
Pre-requisite(s):	Students should have finished 120 credits at 5000 level, or 90 credits at 5000 level and 30 at 4000 level
Anti-requisite(s):	AH5200
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Dissertation = 100%
Module coordinator:	Dr L Goddard
Module teaching staff:	Team taught

Compulsory modules – part-time programme:

AH5560 Theory and Practice of Museums, Art Galleries and Related Organisations, Part 1: Collections in Context

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module is only available to students taking the Postgraduate Diploma, MLitt or MPhil in Museum and Gallery Studies or MPhil in National Trust for Scotland Studies. Together with AH5561 and AH5562 it forms an essential part of a vocational training programme which combines knowledge and skills development to prepare students for work in the museums/galleries/heritage sector or for further research in this area. Subjects covered include: museum definitions and museum professions; types of museums and museum support systems; history of collecting and museums; current issues and ethics; museum standards schemes; acquisition and disposal policies and practices; collections documentation; collections care and preventive and remedial conservation; security and insurance; collections-based research.

Programme module type:	Compulsory for part-time Museum and Gallery Studies and National Trust for Scotland Studies Taught Postgraduate Programmes		
Co-requisite(s):	AH5561, AH5562	**Anti-requisite(s):**	AH5504
Learning and teaching methods and delivery:	**Weekly contact**: Teaching takes place over 2 x 5-day residential schools at St Andrews, usually in January and June.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Ms A Gunn		
Module teaching staff:	Team taught		

AH5561 Theory and Practice of Museums, Art Galleries and Related Organisations, Part 2: Audiences and Management

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is only available to students taking the part-time Postgraduate Diploma, MLitt or M.Phil. in Museum & Gallery Studies or M.Phil. in National Trust for Scotland Studies. Together with AH5561 and AH5562 it forms an essential part of a vocational training programme which combines knowledge and skills development to prepare students for work in the museums/galleries/heritage sector or for further research in this area. Subjects covered include: understanding audiences; information services, temporary and permanent exhibitions; display and interpretation; education services and outreach; ethics and current issues; governing bodies and administration; forward planning; project management; finances and fundraising; personnel management; marketing, publicity and media relations.

Programme module type:	Compulsory for part-time Museum and Gallery Studies and National Trust for Scotland Studies Postgraduate Programmes.		
Co-requisite(s):	AH5560, AH5562	**Anti-requisite(s):**	AH5505
Learning and teaching methods and delivery:	**Weekly contact**: Teaching takes place over 2 x 5-day residential schools at St Andrews, usually in January and June.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr U Weiss		
Module teaching staff:	Team taught		

AH5562 Project Work (Museum and Gallery Studies)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module is only available to students taking the part-time Postgraduate Diploma, MLitt or M.Phil. in Museum and Gallery Studies or M.Phil. in National Trust for Scotland Studies. Together with AH5560 and AH5561 it forms an essential part of a vocational training programme. Project work is undertaken in the student's own museum as far as possible. The practical work undertaken can vary, depending on the particular interests of individual students, but it should normally include: (i) exhibition, interpretation, or display work: (ii) another, individual project, selected by the student and covering another area of museum work, e.g. collections management, museum outreach activities or museum management.

Programme module type:	Compulsory for part-time Museum and Gallery Studies and National Trust for Scotland Studies Postgraduate Programmes.

Co-requisite(s):	AH5560, AH5561	**Anti-requisite(s):**	AH5506

Learning and teaching methods and delivery:	**Weekly contact**: Individual tutorials at residential schools.
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms A Gunn
Module teaching staff:	Team taught

School of Biology

Taught Programmes

Postgraduate Certificate:

Sustainable Aquaculture (Vertebrates)

Sustainable Aquaculture (Invertebrates)

Postgraduate Diploma:

Sustainable Aquaculture

MSc:

Ecosystem-Based Management of Marine Systems

Marine Mammal Science

Sustainable Aquaculture

Master of Science Ecosystem-based Management of Marine Systems

Programme Requirements

Ecosystem-based Management of Marine Systems - MSc
BL5303 (20 credits) **and** BL5304 (15 credits) **and** BL5111 (10 credits) **and** BL5113 (20 credits) **and** BL5399 (60 credits) **and**   At least 40 credits from Module List: BL5305, BL5322 - BL5323, (BL5124 or BL4249)

Compulsory modules:

BL5111 Quantitative Methods for Biology				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged. (Weeks 1 - 7)			
This module provides the basic numerical and computational skills necessary for visualising and summarising data sets. It is designed as a primer for more advanced courses in statistical modeling and also as an introduction to the computer language R. The examples and computer practicals are motivated from the ecological literature.				
Programme module type:	Compulsory for MSc in Marine Mammal Science and for MSc in Ecosystem-based Management of Marine System Postgraduate Programmes			
Anti-requisite(s):	BL5021			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 4 weeks), 1 tutorial (x 4 weeks), assessed lab (x 2 weeks), non-assessed lab (x 3 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S Smout			
Module teaching staff:	Team taught			

BL5113 Statistical Modelling of Biological Data				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged. (Weeks 8 - 11)			
Statistical modelling is an indispensible tool for the analysis of scientific data. This advanced level module will introduce methods for fitting models to biological data, mainly using R software. Approaches will include multiple regression, GLMs, and GAMs. We will consider some of the difficulties that can occur in modelling biological data sets e.g. temporal autocorrelation, and will look at ways to check and test models. We will consider approaches to model selection. The course will also cover multivariate techniques such as cluster analysis.				
Programme module type:	Compulsory for MSc in Marine Mammal Science and for MSc in Ecosystem-based Management of Marine Systems Postgraduate Programmes.			
Co-requisite(s):	BL5111		**Anti-requisite(s):**	MT5753
Learning and teaching methods and delivery:	**Weekly contact**: 4 x 1-hour lectures and 4 x 3-hour labs and 1 x 2-hour seminar. Four weeks in total.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S Smout			
Module teaching staff:	Team taught			

BL5303 Marine Systems Research Methods

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The study of marine systems requires familiarity with a variety of methods of sampling the marine environment. These methods include use of the instruments and sampling devices used in physical, geological, biological, chemical and biogeochemical oceanography. The students will use these methods both on ship and in the laboratory, collecting data that they will analyze and disseminate. The module will also include development of scientific and proposal writing skills. This module is taught at the Scottish Association for Marine Science facility at Oban. Costs of this EMMS module taught at SAMS are covered by course fees, and no additional costs will be incurred by students taking this module.

Programme module type:	Compulsory for MSc in Ecosystem-Based Management of Marine Systems Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 7 lectures, 2 tutorials and 5 practicals in total.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Wilding (SAMS)
Module teaching staff:	Team taught

BL5304 Ecosystem-based Management of Marine Systems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged (Weeks 1 - 11)			

This module will introduce the concept of 'Ecosystem-based management', exploring its development from more simplistic, single-species approaches. Students will make case-studies in a workshop environment of iconic, managed ecosystems including the Southern Ocean and Australia's Great Barrier Reef.

Programme module type:	Compulsory for MSc in Ecosystem-based Management of Marine Systems Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof A Brierley
Module teaching staff:	Team taught

ID5011 Geographic Information Systems for Environmental Management

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged (Weeks 1 - 5)

This module provides an introduction to Geographic Information systems and their use in environmental problem solving. The module will be taught through a series of lectures, tutorials, laboratory classes and individual projects. The module will be assessed through class exercises and the final, short individual project. Students will be introduced to methods of acquiring, storing, analysing and displaying (2D and 3D) spatial digital data using the ArcGIS data package. An introduction to data manipulation and statistical techniques on a variety of environmental examples will be given. The module is taught within the School of Geography & Geosciences but incorporates datasets and analysis techniques used in earth and environmental science, biology, archaeology, and mathematics.

Programme module type:	Compulsory for MSc in Ecosystem-Based Management of Marine Systems
	Optional for Mathematics, Statistics, Managing Environmental Change, Management and Environmental History Taught Postgraduate Programmes.
Pre-requisite(s):	A basic ability in computer skills (Basic word processing, spread sheet analysis)
Anti-requisite(s):	GE5005, ID5010, ID5012
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, practicals and occasional tutorials.
Assessment pattern:	Coursework = 100% (portfolio 70%, Individual Project 30%)
Module coordinator:	Dr C R Bates

Compulsory module for MSc - Whole Year:

BL5399 Ecosystem-Based Management of Marine Resources Research Project

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year

Planned timetable:	To be arranged (June to mid-August)

The research project or dissertation will involve the study of a defined problem within the field of marine systems science. Students will be required to collate and analyze data and discuss their results in the light of existing literature. In some cases, projects might also involve the design of experiments or the gathering of data. Each project will be written up in the form of a thesis.

Programme module type:	Compulsory for MSc in Ecosystem-Based Management of Marine Systems Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: To be arranged.
Assessment pattern:	Research report or Thesis of up to 15,000 words (excluding bibliography) = 100%
Module coordinator:	Dr S Smout

Optional modules:

BL5305 Professional Skills

SCOTCAT Credits:	5	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

The module will comprise a series of interactive lectures and practical workshops covering project and time management, how to review, read and write a scientific paper, and how to promote your research to the public, as well as an excursion/workshop to meet and discuss the work of prospective employers, such as the MASTS/SNH marine seminar for graduate students. The course will include tutorials and interactive workshops, with a final assessment on project management.

Programme module type:	Optional for MSc in Ecosystem-based Management of Marine Systems Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 1-hour introductory lecture, 3 x 3-hour practical classes over the semesters.
Assessment pattern:	Coursework = 100%
Module coordinator:	D S Heymans
Module teaching staff:	

BL5322 Marine Management, Policy and Planning

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module provides students with a broad understanding of the issues surrounding the management of marine resources. Concepts of sustainability, coastal management and marine spatial planning will be explored from the perspective of a variety of stakeholders (e.g. nature conservation, oil/gas, fisheries and renewable energy). The module will identify key concepts underpinning sustainability and develop student awareness of the complex ecological, social, economic and political issues involved in marine management. Students will also develop an in-depth marine plan for a local area, gaining valuable experience of the approaches and problems of the emerging field of marine spatial planning. This module is taught at the Scottish Association for Marine Science facility at Oban. Costs of this EMMS module taught at SAMS are covered by course fees, and no additional costs will be incurred by students taking this module.

Programme module type:	Optional for MSc in Ecosystem-Based Management of Marine Systems Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 13 lectures, 2 x half-day practical sessions and a 1-day workshop
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Fox (SAMS)

BL5323 Advanced Modelling

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Building on the basic concepts of modelling, and systems modelling taught at St Andrews, this module will teach, through lectures and linked practical sessions, an introduction to physical circulation models, individual and population-based spatial models and ecosystem modeling techniques. Additionally, coupled biophysical models will be taught. The module will give an overview of the different physical and biological models used in marine systems science, including the assumptions, parameters needed and some examples of these models, together with application of techniques and interpretation of outcomes. This module is taught at the Scottish Association for Marine Science facility at Oban. Costs of this EMMS module taught at SAMS are covered by course fees, and no additional costs will be incurred by students taking this module.

Programme module type:	Optional for MSc in Ecosystem-Based Management of Marine Systems Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 12 lectures and 7 x 3-hour practical classes over 3 weeks.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Heymans (SAMS)

Either:

BL5124 Predator Ecology in Polar Ecosystems - a Field Course in Antarctica

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	lectures in S1, field course in S2 including 3 weeks in southern Argentina and Antarctica)			

This module offers students the unique opportunity to gain theoretical and practical experience in polar ecology with special emphasis on top predators (cetaceans, pinnipeds, sea birds), ecosystem functionality and management of Antarctic marine living resources. Students will participate in a vessel-based expedition to Antarctica during the austral summer and will also explore southern Argentina. This field trip involves travelling to southern Argentina, conducting at-sea surveys during transit to/ from the Antarctic Peninsula, participating in shore-based activities, and exploring Antarctic coastal waters from small boats. Through a series of specialist lectures, workshops, on-board practicals, field excursions and dedicated observational studies students will gain in-depth understanding and critical awareness of the current scientific, conservation and management challenges of the Antarctic ecoregion. Upon return to St Andrews students will complete a specialist case study on a selected topic which will culminate in the presentation of a manuscript for submission to a journal. Participating students will need to cover all logistic expenses via payment of a substantial expedition fee.

Programme module type:	Optional for MSc in Ecosystem-Based Management of Marine Systems and in Marine Mammal Science Postgraduate Programmes.
Pre-requisite(s):	Undergraduate degree in relevant Biological disciplines and/or admittance to St Andrews MSc Programmes, Medical certificate documenting fit for travel to remote Antarctica
Anti-requisite(s):	BL4301
Learning and teaching methods and delivery:	**Weekly contact**: 8 x 1.5-hour lectures in S1 and several tutorials plus full day field practicals during the expedition.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Heinrich
Module teaching staff:	Dr S Heinrich & Dr L Boheme

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OR:

BL4249 Scientific Diving					
SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2	
Planned timetable:	Full Time 2-3 weeks in January/February				

This module will provide both theoretical and practical experience of the techniques used by scientific divers. The module is restricted to students who have an existing diving qualification (PADI Advanced Open Water Diver or BSAC Sports Diver or equivalent). Seminars during the field trip will cover diving safety, dive project planning, management, risk assessment and the theory behind underwater surveying techniques. Abroad, students will receive training in underwater marine identification, construction and deployment of underwater surveys and sampling techniques, gaining practical experience of recording, analysing and interpreting survey data. Then they conduct a mini-research project using suitable survey techniques and present their findings through a report and a presentation. There are additional costs attached to this module which the student will be expected to meet.

Programme module type:	Optional for MSc in Ecosystem-Based Management of Marine Systems
Pre-requisite(s):	Permission required, PADI Advanced Open Water Diver or BSAC Sports Diver (or equivalent)
Learning and teaching methods and delivery:	**Weekly contact**: 8 hours per day for 2 weeks.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Peddie
Module teaching staff:	Dr C Peddie, Dr M Dornelas

Master of Science Marine Mammal Science

Programme Requirements

Marine Mammal Science - MSc
BL5104 (15 credits) **and** BL5111 (10 credits) **and** BL5113 (20 credits) **and** BL5210 (30 credits) **and** BL5199 (60 credits) **and**   45 credits from Module List: BL5103, BL5121 - BL5122, BL5124 - BL5125, MT5751

Compulsory modules:

BL5104 Conservation and Management of Marine Mammals					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2	
Planned timetable:	Weeks 8 - 11				
From the heated debates surrounding whaling to calls for seal culls to protect commercial fish stocks, issues pertaining to marine mammals feature regularly in the public domain and often polarise public opinion. Finding ways to address human-marine mammal conflicts and advise on mitigation have become important tasks for many marine mammal scientists. Through a series of lectures, seminars, debates and workshops, students will explore human-marine mammal interactions to better understand the underlying factors. They will learn to critically evaluate current conservation and management issues and will explore ways in which sound science can contribute to alleviate existing and future conflicts.					
Programme module type:	Compulsory for MSc in Marine Mammal Science Postgraduate Programme.				
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures and 1 seminar each week for 4 weeks, plus 1 workshop in total.				
Assessment pattern:	1.5-hour Written Examination = 50%, Coursework = 50%				
Module coordinator:	Dr S Heinrich				
Module teaching staff:	Team taught				

BL5111 Quantitative Methods for Biology					
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged. (Weeks 1 - 7)				
This module provides the basic numerical and computational skills necessary for visualising and summarising data sets. It is designed as a primer for more advanced courses in statistical modeling and also as an introduction to the computer language R. The examples and computer practicals are motivated from the ecological literature.					
Programme module type:	Compulsory for MSc in Marine Mammal Science and for MSc in Ecosystem-based Management of Marine System Postgraduate Programmes				
Anti-requisite(s):	BL5021				
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 4 weeks), 1 tutorial (x 4 weeks), assessed lab (x 2 weeks), non-assessed lab (x 3 weeks)				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr S Smout				
Module teaching staff:	Team taught				

BL5113 Statistical Modelling of Biological Data

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged. (Weeks 8 - 11)			

Statistical modelling is an indispensible tool for the analysis of scientific data. This advanced level module will introduce methods for fitting models to biological data, mainly using R software. Approaches will include multiple regression, GLMs, and GAMs. We will consider some of the difficulties that can occur in modelling biological data sets e.g. temporal autocorrelation, and will look at ways to check and test models. We will consider approaches to model selection. The course will also cover multivariate techniques such as cluster analysis.

Programme module type:	Compulsory for MSc in Marine Mammal Science and for MSc in Ecosystem-based Management of Marine Systems Postgraduate Programmes.		
Co-requisite(s):	BL5111	**Anti-requisite(s):**	MT5753
Learning and teaching methods and delivery:	**Weekly contact**: 4 x 1-hour lectures and 4 x 3-hour labs and 1 x 2-hour seminar. Four weeks in total.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr S Smout		
Module teaching staff:	Team taught		

BL5210 Principles of Marine Mammal Biology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module is core to the MSc Marine Mammal Science and covers key concepts of marine mammal biology. The module introduces the zoogeography of marine mammals and the morphological, physiological and behavioural adaptations that have enabled this diverse group to successfully colonise all of the world's oceans and some freshwater systems. Lectures will focus on topical issues illustrating and contrasting some of the strategies shown by different marine mammal groups and the research techniques currently employed to study the diverse aspects of marine mammal biology and conservation. Student-led seminars and practical classes will complement the lecture series and will introduce some of the applied skills needed to investigate marine mammal ecology and behaviour, including the use spatial and acoustic tools.

Programme module type:	Compulsory for MSc in Marine Mammal Science Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 10 hours of lectures (x 5 weeks), 2 hours of seminars (x 5 weeks) and 4 hours of practicals (x 5 weeks)
Assessment pattern:	3-hour Written Examination = 30%, Coursework = 70%
Module coordinator:	Dr S Heinrich
Module teaching staff:	Team taught

BL5199 Marine Mammal Science Research Project

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

The research project or dissertation will involve the study of a defined problem within the field of marine mammal science. Students will be required to collate and analyse data and discuss their results in the light of existing literature. In some cases, projects might also involve the design of experiments or the gathering of data. Students are tasked with developing a research proposal on their project topic. Each project will then be written up in the form of a thesis and presented as a poster during the end of year MSc student conference.

Programme module type:	Compulsory for MSc in Marine Mammal Science Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: To be arranged.
Assessment pattern:	Research report or Thesis of up to 15,000 words (excluding bibliography) = 70%, Research proposal = 20%, Poster presentation = 10%
Module coordinator:	Dr S Heinrich

Optional modules:

BL5103 Population Biology of Marine Mammals

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	Weeks 5 - 7			

The module reviews the fundamental concepts of population dynamics (growth, density dependence, stability, population structure) and how these are interpreted in the light of the various life-history strategies adapted by different species of marine mammals. It then examines topics in population genetics, trophic interactions and spatial dynamics. The module also covers practical issues involved in population viability analysis and anticipated future developments in integrative modelling approaches.

Programme module type:	Optional for MSc in Marine Mammal Science Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 4 lectures (x 3 weeks), seminar (x 2 weeks), tutorial (x 1 week), lab (x 3 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Smout
Module teaching staff:	Team taught

BL5121 Current Issues in Marine Mammal Behaviour

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	Weeks 5 - 7			

Marine mammals are often seen as highly intelligent and complex in their behaviour. This module will investigate such claims by discussing current views and recent advances in the study of marine mammal social behaviour. Each student will present one topic to the class and lead the discussion on it. Topics covered will include brain evolution, dolphin signature whistles, referential communication, cetacean culture, equivalence classes, cooperation and concept formation.

Programme module type:	Optional for MSc in Marine Mammal Science Postgraduate Programme.
Pre-requiste(s):	BL5201
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 9 seminars spread over 3 weeks.
Assessment pattern:	1.5-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr V Janik

BL5122 Current Issues in Biologging

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	Weeks 1 - 4			

This module will present an introduction to biologging science: the theory and practice of logging and relaying physical and biological data using animal-attached tags. Lectures will cover the technology currently available for measuring animal movements, investigating behaviour, ecology and physiology, some of the challenges associated with tag design in terms of how data is stored and transmitted, and problems associated with data analysis and data display. Seminars will discuss some of the ethical and conservation issues that biologging science raises. Two practicals and the continuous assessment for this module introduce students to the difficulties collecting biologging data (using heart-rate dataloggers on themselves) and look at aspects of experimental design and how to write results in a publishable format. A further two practicals explore some of the methods used to view and analyse movement and diving data.

Programme module type:	Optional for MSc in Marine Mammal Science Postgraduate Programme.
Pre-requisite(s):	BL5201
Learning and teaching methods and delivery:	**Weekly contact**: 1 - 2 lectures, 1 seminar and 1 practical class each week for 4 weeks.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Hooker
Module teaching staff:	Team taught

BL5124 Predator Ecology in Polar Ecosystems - a Field Course in Antarctica

SCOTCAT Credits:	15	SCQF Level 11	Semester:	Whole Year
Planned timetable:	lectures in S1, field course in S2 including 3 weeks in southern Argentina and Antarctica)			

This module offers students the unique opportunity to gain theoretical and practical experience in polar ecology with special emphasis on top predators (cetaceans, pinnipeds, sea birds), ecosystem functionality and management of Antarctic marine living resources. Students will participate in a vessel-based expedition to Antarctica during the austral summer and will also explore southern Argentina. This field trip involves travelling to southern Argentina, conducting at-sea surveys during transit to/ from the Antarctic Peninsula, participating in shore-based activities, and exploring Antarctic coastal waters from small boats. Through a series of specialist lectures, workshops, on-board practicals, field excursions and dedicated observational studies students will gain in-depth understanding and critical awareness of the current scientific, conservation and management challenges of the Antarctic ecoregion. Upon return to St Andrews students will complete a specialist case study on a selected topic which will culminate in the presentation of a manuscript for submission to a journal. Participating students will need to cover all logistic expenses via payment of a substantial expedition fee.

Programme module type:	Optional for MSc in Ecosystem-Based Management of Marine Systems and in Marine Mammal Science Postgraduate Programmes.
Pre-requisite(s):	Undergraduate degree in relevant Biological disciplines and/or admittance to St Andrews MSc Programmes, Medical certificate documenting fit for travel to remote Antarctica
Anti-requisite(s):	BL4301
Learning and teaching methods and delivery:	**Weekly contact**: 8 x 1.5-hour lectures in S1 and several tutorials plus full day field practicals during the expedition.
Assessment pattern:	Coursework = 100%
Additional information from School:	Students interested in this module should contact the module co-ordinator before pre-advising.
Module coordinator:	Dr S Heinrich
Module teaching staff:	Dr S Heinrich & Dr L Boheme

BL5125 Advanced Bioacoustics for Marine Mammal Science

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2

Planned timetable:	Weeks 1 - 4

Bioacoustics is an important topic in marine mammal science, because of the use the animals themselves make of sound, because it is often the most practical way to detect their presence, and because of the impacts anthropogenic sounds can have on acoustically sensitive species. This course provides an advanced survey of current topics, from understanding the physics of sound and how it is measured and analysed, through using sound to detect and monitor marine mammal presence, to the assessment and mitigation of anthropogenic noise impacts. There will be a strong emphasis on digital analysis and practical exercises designed to introduce students to the range of techniques and tools currently used in the field.

Programme module type:	Optional for MSc in Marine Mammal Science Postgraduate Programme.
Pre-requisite(s):	Students should have had some background in either marine mammal biology or physics, and should have studied some kind of mathematics to SCQF Level 7 or equivalent.
Learning and teaching methods and delivery:	**Weekly contact**: 8 lectures and 8 practical classes, 3 tutorials and 4 hours of fieldwork over a 4 week period.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Rendell
Module teaching staff:	Team taught

Sustainable Aquaculture Postgraduate Certificates Invertebrates or Vertebrates

Programme Requirements

Sustainable Aquaculture (Invertebrates) - PG Cert
BL4801 (10 credits) **and** BL4803 (10 credits) **and** BL5806 (10 credits) **and** BL5808 (10 credits) **and**   20 credits from Module List: BL5802, BL5804, BL5805

Sustainable Aquaculture (Vertebrates) - PG Cert
BL4801 (10 credits) **and** BL4804 (10 credits) **and** BL5807 (10 credits) **and** BL5809 (10 credits) **and**   20 credits from Module List: BL5802, BL5804, BL5805

Compulsory modules:

BL4801 Aquaculture and Fisheries				
SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides an introduction to the global importance of aquaculture with fisheries industries worldwide. The module will compare both aquaculture and fishing industries with terrestrial, agricultural sources of food production. The global markets for aquaculture, fisheries and agricultural products will be assessed. The environmental interactions of aquaculture will be discussed with relation to the definition of, and development of, sustainable aquaculture practices. The principles of developing sustainable aquaculture in different global environments/conditions will be discussed.				
Programme module type:	Compulsory for all Sustainable Aquaculture Postgraduate Programmes. Optional as a stand alone module.			
Learning and teaching methods and delivery:	**Weekly contact**: Distance Learning : 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

BL4803 Biology for Aquaculture - Invertebrates

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides an understanding of the fundamental biology of invertebrate aquaculture species. This includes the anatomy and physiology of appropriate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (invertebrates). Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL4802
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL4804 Biology for Aquaculture - Vertebrates

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides an understanding of the fundamental biology of vertebrate aquaculture species. This includes the anatomy and physiology of appropriate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (vertebrates) Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL4802
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks), and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5806 Nutrition - Invertebrates

SCOTCAT Credits:	10	SCQF Level 11	Semester:	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key invertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and animal health and the importance of nutrition in developing optimal animal welfare.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Invertebrates). Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5801
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5807 Nutrition - Vertebrates

SCOTCAT Credits:	10	SCQF Level 11	Semester:	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key vertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and animal health and the importance of nutrition in developing optimal animal welfare.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Vertebrates). Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5801
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5808 Health and Disease - Invertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the factors that influence disease processes in cultured invertebrate species including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising welfare and developing sustainable and ethical aquaculture practices will be assessed critically.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Invertebrates). Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5803
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5809 Health and Disease - Vertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the factors that influence disease processes in cultured fish species including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising fish welfare and developing sustainable and ethical aquaculture practices will be assessed critically.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Vertebrates). Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5803
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

Optional modules:

BL5802 Management, Husbandry and Sustainability

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of production management and business management of modern aquaculture practices. Environmental, social and economic sustainability of aquaculture depends on an understanding of the interactions of differing but complementary management structures.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5804 Markets, Products, Processing and Food Safety

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of aquaculture markets, products, processing and food safety. Understanding the processes of ensuring the safety and quality of aquaculture products is central to establishing efficient and sustainable aquaculture practices.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5805 Local and Global Impacts of Aquaculture

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the environmental impact of aquaculture practices on both local and global scales. Understanding the environmental impact of aquaculture practices is central to improving and developing sustainable aquaculture.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

Sustainable Aquaculture Postgraduate Diploma

Programme Requirements

Sustainable Aquaculture - PG Dip
BL4801 (10 credits) **and**   (BL4802 (20 credits) **or** (BL4803 (10 credits) **and** BL4804 (10 credits))) **and**   (BL5801 (20 credits) **or** (BL5806 (10 credits) **and** BL5807 (10 credits))) **and**   BL5802 (10 credits) **and**   (BL5803 (20 credits) **or** (BL5808 (10 credits) **and** BL5809 (10 credits))) **and**   BL5804 (10 credits) **and**   BL5805 (10 credits) **and**   20 credits from Module List: BL5821 - BL5825

Compulsory modules:

BL4801 Aquaculture and Fisheries				
SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides an introduction to the global importance of aquaculture with fisheries industries worldwide. The module will compare both aquaculture and fishing industries with terrestrial, agricultural sources of food production. The global markets for aquaculture, fisheries and agricultural products will be assessed. The environmental interactions of aquaculture will be discussed with relation to the definition of, and development of, sustainable aquaculture practices. The principles of developing sustainable aquaculture in different global environments/conditions will be discussed.				
Programme module type:	Compulsory for all Sustainable Aquaculture Postgraduate Programmes. Optional as a stand alone module.			
Learning and teaching methods and delivery:	**Weekly contact**: Distance Learning : 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

BL5802 Management, Husbandry and Sustainability

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of production management and business management of modern aquaculture practices. Environmental, social and economic sustainability of aquaculture depends on an understanding of the interactions of differing but complementary management structures.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5804 Markets, Products, Processing and Food Safety

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of aquaculture markets, products, processing and food safety. Understanding the processes of ensuring the safety and quality of aquaculture products is central to establishing efficient and sustainable aquaculture practices.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5805 Local and Global Impacts of Aquaculture

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the environmental impact of aquaculture practices on both local and global scales. Understanding the environmental impact of aquaculture practices is central to improving and developing sustainable aquaculture.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

Either:

BL4802 Biology for Aquaculture

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides an understanding of the fundamental biology of aquaculture species. This includes the anatomy and physiology of both invertebrate and vertebrate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.

Programme module type:	Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Anti-requisite(s):	BL4803 and BL4804
Learning and teaching methods and delivery:	**Weekly contact**: Distance learning: 2 x 2-hour lecture (x 10 weeks) and 1 x 3-hour tutorial (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

OR:

BL4803 Biology for Aquaculture - Invertebrates

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides an understanding of the fundamental biology of invertebrate aquaculture species. This includes the anatomy and physiology of appropriate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (invertebrates). Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL4802
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

Either:

BL4802 Biology for Aquaculture

BL4804 Biology for Aquaculture - Vertebrates

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides an understanding of the fundamental biology of vertebrate aquaculture species. This includes the anatomy and physiology of appropriate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (vertebrates) Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL4802
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks), and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon

BL5801 Nutrition for Aquaculture

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key fish and invertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and fish health, the role of microbiota in fish nutrition and the importance of nutrition in developing optimal animal welfare.

Programme module type:	Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Anti-requisite(s):	BL5806 and BL5807
Learning and teaching methods and delivery:	**Weekly contact**: Distance learning: 2 x 2-hour lecture (x 10 weeks) and 1 x 3-hour tutorial (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

OR:

BL5806 Nutrition - Invertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key invertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and animal health and the importance of nutrition in developing optimal animal welfare.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Invertebrates).
	Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes
	Optional as a stand alone module.
Anti-requisite(s):	BL5801
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

AND:

BL5807 Nutrition - Vertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key vertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and animal health and the importance of nutrition in developing optimal animal welfare.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Vertebrates).
	Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes
	Optional as a stand alone module.
Anti-requisite(s):	BL5801
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

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BL5803 Health and Disease

SCOTCAT Credits:	20	SCQF Level 11	Semester:	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the factors that influence disease processes in cultured fish and invertebrates including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising fish welfare and developing sustainable and ethical aquaculture practices will be assessed critically.

Programme module type:	Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Anti-requisite(s):	BL5808 and BL5809
Learning and teaching methods and delivery:	**Weekly contact**: Distance learning: 2 x 2-hour lecture (x 10 weeks) and 1 x 3-hour tutorial (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5808 Health and Disease - Invertebrates

SCOTCAT Credits:	10	SCQF Level 11	Semester:	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the factors that influence disease processes in cultured invertebrate species including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising welfare and developing sustainable and ethical aquaculture practices will be assessed critically.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Invertebrates). Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5803
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

AND:

BL5809 Health and Disease - Vertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the factors that influence disease processes in cultured fish species including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising fish welfare and developing sustainable and ethical aquaculture practices will be assessed critically.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Vertebrates). Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5803
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

Optional modules:

BL5821 Breeding and Genetics

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of selective breeding programmes and modern genetic techniques applied in aquaculture practices. Scientific and ethical issues raised by the application of genetic engineering will be examined with the context of developing sustainable aquaculture.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David, Prof K Rana

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BL5822 Advanced Welfare and Ethics

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the welfare and ethical issues raised by current aquaculture practices. Animal welfare is rapidly developing as a major ethical issue within all areas of food production including aquaculture. Future development of sustainable aquaculture must incorporate ethical practices, optimising animal welfare and as a consequence improving the final product.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5823 Recirculation Aquaculture Systems

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the use of recirculating aquaculture systems in modern aquaculture practices. Recirculating aquaculture systems potentially provide environmentally sustainable aquaculture practices but must be assessed and viewed within the context of ethical, financial and social components of sustainability.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5824 Ornamental and Aquaria Production

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of animals produced by the ornamental and aquaria section of the aquaculture business. This sector of the aquaculture business has specific issues with relation to establishing sustainable aquaculture practices. In particular, the sustainability and ethical issues with reference to both captive breeding systems and wild caught fish supply will be examined and assessed for different trade sectors.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David, Prof K Rana

BL5825 Larval Rearing

SCOTCAT Credits:	10	SCQF Level 11	Semester:	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the larval production techniques used in the aquaculture business. Larval production is often the rate limited step in development of new aquaculture species and presents particular ethical and sustainability issues with regard to current production techniques.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

Master of Science Sustainable Aquaculture

Programme Requirements

Sustainable Aquaculture - MSc
BL5899 (60 credits) **and**   BL4801 (10 credits) **and**   (BL4802 (20 credits) **or** (BL4803 (10 credits) **and** BL4804 (10 credits))) **and**   (BL5801 (20 credits) **or** (BL5806 (10 credits) **and** BL5807 (10 credits))) **and**   BL5802 (10 credits) **and**   (BL5803 (20 credits) **or** (BL5808 (10 credits) **and** BL5809 (10 credits))) **and**   BL5804 (10 credits) **and** BL5805 (10 credits) **and**   20 credits from Module List: BL5821 - BL5825

Compulsory modules:

BL4801 Aquaculture and Fisheries				
SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides an introduction to the global importance of aquaculture with fisheries industries worldwide. The module will compare both aquaculture and fishing industries with terrestrial, agricultural sources of food production. The global markets for aquaculture, fisheries and agricultural products will be assessed. The environmental interactions of aquaculture will be discussed with relation to the definition of, and development of, sustainable aquaculture practices. The principles of developing sustainable aquaculture in different global environments/conditions will be discussed.				
Programme module type:	Compulsory for all Sustainable Aquaculture Postgraduate Programmes. Optional as a stand alone module.			
Learning and teaching methods and delivery:	**Weekly contact**: Distance Learning : 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

BL5802 Management, Husbandry and Sustainability				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides advanced knowledge of production management and business management of modern aquaculture practices. Environmental, social and economic sustainability of aquaculture depends on an understanding of the interactions of differing but complementary management structures.				
Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.			
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

BL5804 Markets, Products, Processing and Food Safety

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning	
Planned timetable:	To be arranged.				

This module provides advanced knowledge of aquaculture markets, products, processing and food safety. Understanding the processes of ensuring the safety and quality of aquaculture products is central to establishing efficient and sustainable aquaculture practices.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5805 Local and Global Impacts of Aquaculture

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning	
Planned timetable:	To be arranged.				

This module provides advanced knowledge of the environmental impact of aquaculture practices on both local and global scales. Understanding the environmental impact of aquaculture practices is central to improving and developing sustainable aquaculture.

Programme module type:	Compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional for both Sustainable Aquaculture Postgraduate Certificates. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5899 Sustainable Aquaculture Research Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year	
Planned timetable:	To be arranged.				

The research dissertation will involve the study of a defined problem within the field of Sustainable Aquaculture. Students will be required to collate and analyse data and to discuss their results in the light of existing literature. In some cases, projects might also involve the design of experiments or the gathering of data. Each project will be written up in the form of a thesis.

Programme module type:	Compulsory for Postgraduate MSc in Sustainable Aquaculture. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision
Assessment pattern:	Dissertation of up to 15,000 words = 100%
Module coordinator:	Dr N Hazon

Either:

BL4802 Biology for Aquaculture				
SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides an understanding of the fundamental biology of aquaculture species. This includes the anatomy and physiology of both invertebrate and vertebrate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.				
Programme module type:	Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.			
Anti-requisite(s):	BL4803 and BL4804			
Learning and teaching methods and delivery:	**Weekly contact**: Distance learning: 2 x 2-hour lecture (x 10 weeks) and 1 x 3-hour tutorial (x 10 weeks)			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

OR:

BL4803 Biology for Aquaculture - Invertebrates				
SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides an understanding of the fundamental biology of invertebrate aquaculture species. This includes the anatomy and physiology of appropriate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.				
Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (invertebrates). Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.			
Anti-requisite(s):	BL4802			
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

Either:

AND:

BL4804 Biology for Aquaculture - Vertebrates				
SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides an understanding of the fundamental biology of vertebrate aquaculture species. This includes the anatomy and physiology of appropriate aquaculture species. The interaction of aquaculture species with the aquatic environment and the requirements for developing sustainable aquaculture will be assessed.				
Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (vertebrates) Either BL4802 or (BL4803 and BL4804) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.			
Anti-requisite(s):	BL4802			
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks), and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr N Hazon			

Either:

BL5801 Nutrition for Aquaculture				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key fish and invertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and fish health, the role of microbiota in fish nutrition and the importance of nutrition in developing optimal animal welfare.				
Programme module type:	Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.			
Anti-requisite(s):	BL5806 and BL5807			
Learning and teaching methods and delivery:	**Weekly contact**: Distance learning: 2 x 2-hour lecture (x 10 weeks) and 1 x 3-hour tutorial (x 10 weeks)			
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

OR:

BL5806 Nutrition - Invertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key invertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and animal health and the importance of nutrition in developing optimal animal welfare.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Invertebrates). Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5801
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

AND:

BL5807 Nutrition - Vertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the anatomy, physiology and nutritional requirements of key vertebrate species and a critical assessment of the sustainability of feed production technology. It will also assess and discuss the relationship between clinical nutrition and animal health and the importance of nutrition in developing optimal animal welfare.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Vertebrates). Either BL5801 or (BL5806 and BL5807) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5801
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

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Either:

BL5803 Health and Disease

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the factors that influence disease processes in cultured fish and invertebrates including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising fish welfare and developing sustainable and ethical aquaculture practices will be assessed critically.

Programme module type:	Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Anti-requisite(s):	BL5808 and BL5809
Learning and teaching methods and delivery:	**Weekly contact**: Distance learning: 2 x 2-hour lecture (x 10 weeks) and 1 x 3-hour tutorial (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

OR:

BL5808 Health and Disease - Invertebrates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the factors that influence disease processes in cultured invertebrate species including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising welfare and developing sustainable and ethical aquaculture practices will be assessed critically.

Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Invertebrates). Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.
Anti-requisite(s):	BL5803
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

AND:

BL5809 Health and Disease - Vertebrates				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides advanced knowledge of the factors that influence disease processes in cultured fish species including viral, bacterial, parasitic and non-infectious disease. The wide range of specific causes of disease and pathology in farmed species will be discussed and the importance of operations and management on the development and impact of disease in optimising fish welfare and developing sustainable and ethical aquaculture practices will be assessed critically.				
Programme module type:	Compulsory for Postgraduate Certificate in Sustainable Aquaculture (Vertebrates). Either BL5803 or (BL5808 and BL5809) is compulsory for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes Optional as a stand alone module.			
Anti-requisite(s):	BL5803			
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David			

Optional modules:

BL5821 Breeding and Genetics				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			
This module provides advanced knowledge of selective breeding programmes and modern genetic techniques applied in aquaculture practices. Scientific and ethical issues raised by the application of genetic engineering will be examined with the context of developing sustainable aquaculture.				
Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.			
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr N Hazon			
Module teaching staff:	Dr J A David, Prof K Rana			

BL5822 Advanced Welfare and Ethics

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the welfare and ethical issues raised by current aquaculture practices. Animal welfare is rapidly developing as a major ethical issue within all areas of food production including aquaculture. Future development of sustainable aquaculture must incorporate ethical practices, optimising animal welfare and as a consequence improving the final product.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5823 Recirculation Aquaculture Systems

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the use of recirculating aquaculture systems in modern aquaculture practices. Recirculating aquaculture systems potentially provide environmentally sustainable aquaculture practices but must be assessed and viewed within the context of ethical, financial and social components of sustainability.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

BL5824 Ornamental and Aquaria Production

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of animals produced by the ornamental and aquaria section of the aquaculture business. This sector of the aquaculture business has specific issues with relation to establishing sustainable aquaculture practices. In particular, the sustainability and ethical issues with reference to both captive breeding systems and wild caught fish supply will be examined and assessed for different trade sectors.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David, Prof K Rana

BL5825 Larval Rearing

SCOTCAT Credits:	10	SCQF Level 11	Semester:	Distance learning
Planned timetable:	To be arranged.			

This module provides advanced knowledge of the larval production techniques used in the aquaculture business. Larval production is often the rate limited step in development of new aquaculture species and presents particular ethical and sustainability issues with regard to current production techniques.

Programme module type:	Optional for Sustainable Aquaculture Postgraduate Diploma and MSc Programmes. Optional as a stand alone module.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours of lectures (x 5 weeks) and 3 hours of tutorials (x 3 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Hazon
Module teaching staff:	Dr J A David

School of Chemistry

Taught Programmes

MSc:

Catalysis
Chemical Science

MPhil:

Chemistry

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Catalysis

Programme Requirements

Catalysis - MSc
CH5511 (10 credits) **and** CH5713 (10 credits) **and** CH5811 (20 credits) **and** CH5822 (20 credits) **and** CH5831 (10 credits) **and** CH5832 (20 credits) **and** 30 credits from Module List: CH4514, CH4614, CH5517 - CH5518, CH5611 - CH5614, CH5616, CH5711, CH5714 - CH5717 **and** CH5841 (60 credits)

Compulsory modules:

CH5511 Homogeneous Catalysis				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module discusses the use of metal based systems in organic transformations and a detailed treatment of homogeneous catalysis. Important processes in the petrochemicals industry will be used to exemplify the principles described.				
Programme module type:	Compulsory for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil. Optional for MSc in Geochemistry.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.			
Assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	TBC			
Module teaching staff:	Prof R P Tooze, Prof D Cole-Hamilton			

CH5713 Surface Science and Heterogeneous Catalysis				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
The module describes the Chemistry of solid surfaces with particular reference to the structure of metal, oxide and semiconductor surfaces. The techniques available to characterise the uppermost atomic layers of a solid are presented and the novel reactivity of surfaces is linked to applications in sensors, electronic devices, heterogeneous catalysis as well as the processes of corrosion, friction and wear.				
Programme module type:	Compulsory for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.			
Assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Prof C J Baddeley			
Module teaching staff:	Prof C J Baddeley, Prof P A Wright			

CH5811 Introduction to Metal Catalysis, Organocatalysis and Biocatalysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

An overview of current challenges and major achievements in current catalysis will be given in this module. The overarching theme is the role that catalysis plays in enabling the chemical industry to deliver a sustainable future. Teaching includes lectures, workshops and case studies.

Programme module type:	Compulsory for MSc in Catalysis
Learning and teaching methods and delivery:	**Weekly contact**: 11 lectures (x4 weeks), 3 tutorials (x 3 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr P Kilian
Module teaching staff:	all staff

CH5822 Research Skills in Chemistry

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module involves gaining familiarity and expertise in specialised research techniques in the Chemical Sciences appropriate to the prospective Research Project. These will vary considerably according to the chosen area but may include running a computer modelling calculation, operation of spectrometers, diffractometers, and similar instruments, searching for data in the chemical literature, manipulation of air sensitive materials, conducting a high-pressure reaction etc.

Programme module type:	Compulsory for MSc in Catalysis Compulsory for MSc in Chemical Science
Learning and teaching methods and delivery:	**Weekly contact**: 14 hours practical classes (x 10 weeks), 1-hour one-to-one supervision (x 10 weeks)
Assessment pattern:	Coursework (laboratory reports) = 100%
Module coordinator:	Dr P Kilian
Module teaching staff:	all staff

CH5831 Literature Review for MSc

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module which forms part of the MSc programme in Chemical Science involves an in-depth survey of the published literature within a specified research area which is related to the prospective research project.

Programme module type:	Compulsory for MSc in Catalysis Compulsory for MSc in Chemical Science
Learning and teaching methods and delivery:	**Weekly contact**: 5 x 1-hour consultation and feedback sessions with supervisor over the semester.
Assessment pattern:	Coursework (~4,000-word Literature Review)= 100%
Module coordinator:	Dr P Kilian
Module teaching staff:	all staff

CH5832 Contemporary Research Awareness

SCOTCAT Credits:	20	SCQF Level 11	Semester:	Whole Year
Planned timetable:	To be arranged.			

This module which forms part of the MSc programme in Chemical Science is based on Research Colloquia and Seminars delivered by external speakers and covering the whole range of areas within current chemical science research. Assessment is by two essays to be based on selected lecture(s) and additional reading, one to be submitted at the end of each semester.

Programme module type:	Compulsory for MSc in Catalysis
	Compulsory for MSc in Chemical Science
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours in total over the whole year.
Assessment pattern:	Coursework (2 x 3,000-word essays) = 100%
Module coordinator:	Dr P Kilian

CH5841 Research Project for MSc

SCOTCAT Credits:	60	SCQF Level 11	Semester:	Summer
Planned timetable:	To be arranged.			

The research project for MSc aims to develop the students' skills in the following areas: experimental design and problem-solving; abstraction, evaluation and interpretation of data in the chemical literature; practical skills and teamwork; communication of results orally and in a dissertation. The project is supervised by a member of the academic staff. The project topic and aims will be selected by both supervisor and student and a related literature survey will be carried out in module CH5831.

Programme module type:	Compulsory for MSc in Catalysis
	Compulsory for MSc in Chemical Science
Learning and teaching methods and delivery:	**Weekly contact**: 30 hours of practical classes (research work).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr P Kilian
Module teaching staff:	all staff

Optional modules:

CH4514 Advanced Metal Chemistry

SCOTCAT Credits:	10	SCQF Level 10	Semester:	1
Planned timetable:	To be arranged.			

This module covers the heavier d-block and f-block metals and also the theory behind bonding, magnetism and electronic spectroscopy in d-block metal complexes. At the end of the module students should be in a position to understand fully the nature of bonding in d- and f-block metal systems, to understand the electronic spectra of d-block complexes and to rationalise trends in chemical properties both down and across the periodic table. The module also aims to explore the role played by inorganic systems in biology and their growing importance in medicine. There will also be discussion of the mechanisms of action of some inorganic systems in biology.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science Optional for Chemistry MPhil Optional for Geochemistry
Pre-requisite(s):	for MSc in Geochemistry require BSc in Chemistry
Anti-requisite(s):	CH4455
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr B E Bode
Module teaching staff:	Dr E Zysman-Colman, Dr B E Bode

CH4614 Heterocyclic and Pericyclic Chemistry

SCOTCAT Credits:	10	SCQF Level 10	Semester:	1
Planned timetable:	To be arranged.			

This module covers the important areas of heterocyclic and pericyclic chemistry in detail. In heterocyclic chemistry, the nomenclature and numbering of single and fused ring systems, and structure, reactivity, synthesis and applications of the main five and six-membered ring systems with one and two heteroatoms will be covered. Selected industrial syntheses of heterocyclic medicinal compounds are used to illustrate the basic principles as well as the factors to be considered in large scale synthesis. In pericyclic chemistry, a frontier molecular orbital approach based on the Woodward-Hoffmann rules will be applied to pericyclic reactions and used to provide an understanding of the energetics and stereochemistry of Diels-Alder and 1,3-dipolar cycloaddition reactions as well as electrocyclic processes and sigmatropic rearrangements. Synthetic applications of these processes will also be illustrated.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science Optional for Chemistry MPhil
Anti-requisite(s):	CH4456
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total, plus a half-day site visit.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R A Aitken
Module teaching staff:	Dr R A Aitken, Dr E R Kay

CH5517 Advanced Physical Inorganic Chemistry

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module involves distinct sections on photophysics of coordination complexes including theory and applications, and inorganic 'open shell' compounds including synthesis, characterisation and applications of paramagnetic inorganic species.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr E Zysman-Colman
Module teaching staff:	Dr E Zysman-Colman, Dr B Bode

CH5518 Blockbuster Solids

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module covers two major topics. The first deals with modern materials which have a major impact on our lives, focusing on how the material's structure influences its electrical, magnetic and thermal properties. In the second section, emphasis will be placed on metal organic frameworks and how they can be used for the storage and release of gases.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof P Lightfoot
Module teaching staff:	Prof P Lightfoot, Prof R E Morris

CH5611 Asymmetric Synthesis

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module discusses the methods available for the synthesis of chiral compounds. After a detailed introduction to the specialised terminology and analytical methods used, the main methods using chiral auxiliaries, chiral reagents and chiral catalysts will be described. This will then be combined with a consideration of synthetic strategy and total syntheses of several complex chiral compounds will be discussed.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr M L Clarke
Module teaching staff:	Dr M L Clarke, Prof A D Smith

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CH5616 Molecular Recognition

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2	
Planned timetable:	To be arranged.				

This module offers a systematic introductory treatment of molecular recognition, emphasising fundamental concepts of intermolecular interactions and molecular recognition in solution. The nature, strength and directionality of orbital, hydrogen-bonding and hydrophobic interactions will be explored. Spectroscopic and other techniques for studying these interactions will be outlined with examples.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof D Philp
Module teaching staff:	Prof D Philp, Dr E R Kay

CH5711 Advanced Spectroscopic Methods

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				

This module describes the importance of more advanced spectroscopic methods for the elucidation of structure and properties of increasingly complex molecules and materials. Particular attention will be paid to those techniques which exploit synchrotron radiation.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Pre-requisite(s):	for MSc in Geochemistry require BSc in Chemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials per week.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof C J Baddeley
Module teaching staff:	Prof C J Baddeley, Dr G Haehner

CH5714 Chemical Applications of Electronic Structure Calculations

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2	
Planned timetable:	To be arranged.				

This module will build on the foundations laid in CH2701 and CH3712 and introduce further aspects and methods of modern computational chemistry related to the electronic structures of atoms and molecules. It will be shown how results of such calculations can be used to complement, interpret, and guide experiments in many areas of chemistry.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof M Buehl
Module teaching staff:	Prof M Buehl, Dr J B O Mitchell

CH5715 Energy Conversion and Storage

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

In our efforts to mitigate global warming it is essential to develop new and improved methods of generation and storage of energy. Foremost among these methods are the electrochemical technologies of batteries and fuel cells. In this module we will discuss the technical details and applications of such devices. Particular emphasis will be placed on the underlying electrochemistry and materials chemistry.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Anti-requisite(s):	CH4712
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R T Baker
Module teaching staff:	Dr R T Baker, Prof J T S Irvine

CH5716 Processing of Materials

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module focuses on the processing of materials. Fundamental materials properties such as crystallinity, composition, crystal phase, phase mixing, domain structure, grains and grain boundaries, porosity and pore structure will be covered and the main methods used to control these properties in order to develop and improve materials for specific applications will be addressed. Processes including casting, extrusion, physical and chemical vapour deposition, calcination, sintering, annealing, plasma treatments, mechanical working, crystallisation and dopant addition will be described and explained. Applications in high-value metals, ceramics and semiconductor materials will be emphasised.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof J T S Irvine
Module teaching staff:	Prof J T S Irvine, Dr M Cassidy

CH5717 Nanostructured Materials

SCOTCAT Credits:	10	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module will introduce the concepts and science behind the design and synthesis of a wide range of nanostructures and the application of these structures in functional materials and devices. The relationship between nanoscale structure and composition and macroscale properties and behaviour will be emphasised. Structures will be classified and introduced in terms of their number of dimensions: clusters, nanoparticles and quantum dots (0-D); nanotubes, nanowires and nanorods (1-D); nanosheets and films (2-D); and porous crystals, mesoporous structures and metal-organic frameworks (3-D). Other specific topics will include the science of clusters, molecular assemblies and assemblies of nanostructures. Novel carbon based materials, including simple and functionalised fullerenes, carbon nanotubes and graphene and related materials will be described and their physical and chemical properties related to their structure and bonding. Advanced characterisation techniques and applications related to nanotechnology, MEMs, biomaterials, catalysis, and optical and magnetic devices will be addressed.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof W Zhou
Module teaching staff:	Prof W Zhou, Prof M Buck

Master of Science Chemical Science

Programme Requirements

Chemical Science - MSc
CH5822 (10 credits) **and** CH5831 (10 credits) **and** CH5832 (20 credits) **and** 70 credit from Module List: CH3621, CH3721, CH4514, CH4614, CH5461, CH5511, CH5517-CH5518, CH5612-CH5614, CH5711, CH5713-CH5717 **and** CH5841 (60 credits)

Compulsory modules:

CH5822 Research Skills in Chemistry				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module involves gaining familiarity and expertise in specialised research techniques in the Chemical Sciences appropriate to the prospective Research Project. These will vary considerably according to the chosen area but may include running a computer modelling calculation, operation of spectrometers, diffractometers, and similar instruments, searching for data in the chemical literature, manipulation of air sensitive materials, conducting a high-pressure reaction etc.				
Programme module type:	Compulsory for MSc in Catalysis Compulsory for MSc in Chemical Science			
Learning and teaching methods and delivery:	**Weekly contact**: 14 hours practical classes (x 10 weeks), 1-hour one-to-one supervision (x 10 weeks)			
Assessment pattern:	Coursework (laboratory reports) = 100%			
Module coordinator:	Dr P Kilian			
Module teaching staff:	all staff			

CH5831 Literature Review for MSc				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module which forms part of the MSc programme in Chemical Science involves an in-depth survey of the published literature within a specified research area which is related to the prospective research project.				
Programme module type:	Compulsory for MSc in Catalysis Compulsory for MSc in Chemical Science			
Learning and teaching methods and delivery:	**Weekly contact**: 5 x 1-hour consultation and feedback sessions with supervisor over the semester.			
Assessment pattern:	Coursework (~4,000-word Literature Review)= 100%			
Module coordinator:	Dr P Kilian			
Module teaching staff:	all staff			

CH5832 Contemporary Research Awareness

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module which forms part of the MSc programme in Chemical Science is based on Research Colloquia and Seminars delivered by external speakers and covering the whole range of areas within current chemical science research. Assessment is by two essays to be based on selected lecture(s) and additional reading, one to be submitted at the end of each semester.

Programme module type:	Compulsory for MSc in Catalysis Compulsory for MSc in Chemical Science
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours in total over the whole year.
Assessment pattern:	Coursework (2 x 3,000-word essays) = 100%
Module coordinator:	Dr P Kilian
Module teaching staff:	

CH5841 Research Project for MSc

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

The research project for MSc aims to develop the students' skills in the following areas: experimental design and problem-solving; abstraction, evaluation and interpretation of data in the chemical literature; practical skills and teamwork; communication of results orally and in a dissertation. The project is supervised by a member of the academic staff. The project topic and aims will be selected by both supervisor and student and a related literature survey will be carried out in module CH5831.

Programme module type:	Compulsory for MSc in Catalysis Compulsory for MSc in Chemical Science
Learning and teaching methods and delivery:	**Weekly contact**: 30 hours of practical classes (research work).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr P Kilian
Module teaching staff:	all staff

Optional modules:

Either

CH3621 Organic Chemistry Laboratory

SCOTCAT Credits:	10	SCQF Level 9	**Semester:**	1
Planned timetable:	9.00 am - 12.30 pm Mon to Fri (Weeks 1 - 5)			

Practical experiments involving synthesis, characterisation and measurements in organic chemistry.

Programme module type:	Optional for MSc Chemical Science
Learning and teaching methods and delivery:	**Weekly contact**: Daily 3.5-hour morning practical classes over 5 weeks (Weeks 1 - 5).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr I A Smellie, Dr N S Keddie
Module teaching staff:	Dr I A Smellie, Dr N S Keddie, Dr R J M Goss

Or

CH3721 Physical Chemistry Laboratory					
SCOTCAT Credits:	10	SCQF Level 9	**Semester:**	1	
Planned timetable:	9.00 am - 1.00 pm Mon to Fri (Weeks 7-10)				
This module comprises practical experiments involving physical measurements and the use of computational programmes in Chemistry.					
Programme module type:	Compulsory for MSc in Geochemistry (unless BSc Chemistry is already held) Optional for Chemical Science MSc				
Learning and teaching methods and delivery:	**Weekly contact**: Daily 4-hour morning practical classes over 4 weeks (Weeks 7 - 10).				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Prof M Buck				
Module teaching staff:	Prof P A Wright, Prof M Buck, Dr R Schaub, Dr T van Mourik, Prof M Buehl				

Either

CH4514 Advanced Metal Chemistry					
SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	1	
Planned timetable:	To be arranged.				
This module covers the heavier d-block and f-block metals and also the theory behind bonding, magnetism and electronic spectroscopy in d-block metal complexes. At the end of the module students should be in a position to understand fully the nature of bonding in d- and f-block metal systems, to understand the electronic spectra of d-block complexes and to rationalise trends in chemical properties both down and across the periodic table. The module also aims to explore the role played by inorganic systems in biology and their growing importance in medicine. There will also be discussion of the mechanisms of action of some inorganic systems in biology.					
Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science Optional for Chemistry MPhil Optional for MSc in Geochemistry				
Pre-requisite(s):	for MSc in Geochemistry require BSc in Chemistry				
Anti-requisite(s):	CH4455				
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.				
Assessment pattern:	2-hour Written Examination = 100%				
Module coordinator:	Dr B E Bode				
Module teaching staff:	Dr E Zysman-Colman, Dr B E Bode				

Or

CH4614 Heterocyclic and Pericyclic Chemistry

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

This module covers the important areas of heterocyclic and pericyclic chemistry in detail. In heterocyclic chemistry, the nomenclature and numbering of single and fused ring systems, and structure, reactivity, synthesis and applications of the main five and six-membered ring systems with one and two heteroatoms will be covered. Selected industrial syntheses of heterocyclic medicinal compounds are used to illustrate the basic principles as well as the factors to be considered in large scale synthesis. In pericyclic chemistry, a frontier molecular orbital approach based on the Woodward-Hoffmann rules will be applied to pericyclic reactions and used to provide an understanding of the energetics and stereochemistry of Diels-Alder and 1,3-dipolar cycloaddition reactions as well as electrocyclic processes and sigmatropic rearrangements. Synthetic applications of these processes will also be illustrated.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science Optional for Chemistry MPhil
Anti-requisite(s):	CH4456
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total, plus a half-day site visit.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R A Aitken
Module teaching staff:	Dr R A Aitken, Dr E R Kay

CH5461 Integrating Chemistry

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This is a general chemistry module aimed at developing and consolidating fundamental aspects of basic understanding. Students will be encouraged to gain a deeper understanding of elementary core material by a combination of discussion, general reading, essay work and problem solving at a more advanced level than previously required. Students will be expected to read externally on related topics. In addition, each student will be required to submit an essay which will be on a topic relevant to the broader issues of chemical study and knowledge. The problems will apply the knowledge gained in Level 2000 Chemistry modules.

Programme module type:	Optional for Chemical Science MSc (unless CH4461 has been previously passed).
Anti-requisite(s):	CH4461
Learning and teaching methods and delivery:	**Weekly contact**: 2 classes per week over 8 weeks (Weeks 3-11) and a total of 3 x 1-hour seminars.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr R Schaub
Module teaching staff:	all staff

CH5511 Homogeneous Catalysis

SCOTCAT Credits:	10	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module discusses the use of metal based systems in organic transformations and a detailed treatment of homogeneous catalysis. Important processes in the petrochemicals industry will be used to exemplify the principles described.

Programme module type:	Compulsory for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil.
	Optional for MSc in Geochemistry.
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	TBC
Module teaching staff:	Prof R P Tooze, Prof D Cole-Hamilton

CH5517 Advanced Physical Inorganic Chemistry

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module involves distinct sections on photophysics of coordination complexes including theory and applications, and inorganic 'open shell' compounds including synthesis, characterisation and applications of paramagnetic inorganic species.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr E Zysman-Colman
Module teaching staff:	Dr E Zysman-Colman, Dr B Bode

CH5518 Blockbuster Solids

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module covers two major topics. The first deals with modern materials which have a major impact on our lives, focusing on how the material's structure influences its electrical, magnetic and thermal properties. In the second section, emphasis will be placed on metal organic frameworks and how they can be used for the storage and release of gases.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof P Lightfoot
Module teaching staff:	Prof P Lightfoot, Prof R E Morris

CH5611 Asymmetric Synthesis

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module discusses the methods available for the synthesis of chiral compounds. After a detailed introduction to the specialised terminology and analytical methods used, the main methods using chiral auxiliaries, chiral reagents and chiral catalysts will be described. This will then be combined with a consideration of synthetic strategy and total syntheses of several complex chiral compounds will be discussed.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr M L Clarke
Module teaching staff:	Dr M L Clarke, Prof A D Smith

CH5612 Natural Products, Biosynthesis and Enzyme Co-factors

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The module will investigate the biosynthesis of the main natural products groups (polyketides, terpenes, alkaloids). Unifying features of their structures and biosynthesis will be described and methods for studying the biosynthesis of natural products will be taught (isotope tracer methods). The common enzyme co-factors (PLP, TPP, NADH, co-enzyme B12) will be highlighted and their mechanistic role in mediating enzymatic transformations will be explored.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof D O'Hagan
Module teaching staff:	Prof D O'Hagan, Prof T K Smith, Dr G J Florence

CH5613 Reactive Intermediates

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Aspects of the organic chemistry of the most important reactive intermediates viz.: carbo-cations, carbanions, free radicals, carbenes, nitrenes and arynes will be covered. Means of generating each type of reactive intermediate will be introduced. The key reactions of each intermediate will be reviewed and their characteristic reactions highlighted. An understanding of the use of each species in organic synthesis and of their significance in mechanistic analysis will be developed.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R A Aitken
Module teaching staff:	Dr R A Aitken, Dr I A Smellie

CH5614 Chemical Biology

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will examine new methodologies for drug discovery. An overview of the processes of target discovery, lead discovery and lead optimisation will be given. The use of structural biology (protein crystallography, NMR), computational chemistry and combinatorial chemistry in 'rational drug design' will be described. The module will look at the technologies behind combinatorial library design, synthesis and high throughput screening. Broad and focused libraries will be discussed. Several examples will be explored, such as the development of drugs against AIDS and influenza.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	TBC
Module teaching staff:	Prof N J Westwood, TBC

CH5616 Molecular Recognition

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module offers a systematic introductory treatment of molecular recognition, emphasising fundamental concepts of intermolecular interactions and molecular recognition in solution. The nature, strength and directionality of orbital, hydrogen-bonding and hydrophobic interactions will be explored. Spectroscopic and other techniques for studying these interactions will be outlined with examples.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof D Philp
Module teaching staff:	Prof D Philp, Dr E R Kay

CH5711 Advanced Spectroscopic Methods

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module describes the importance of more advanced spectroscopic methods for the elucidation of structure and properties of increasingly complex molecules and materials. Particular attention will be paid to those techniques which exploit synchrotron radiation.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil Optional for MSc in Geochemistry
Pre-requisite(s):	for MSc in Geochemistry require BSc in Chemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials per week.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof C J Baddeley
Module teaching staff:	Prof C J Baddeley, Dr G Haehner

CH5713 Surface Science and Heterogeneous Catalysis

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The module describes the Chemistry of solid surfaces with particular reference to the structure of metal, oxide and semiconductor surfaces. The techniques available to characterise the uppermost atomic layers of a solid are presented and the novel reactivity of surfaces is linked to applications in sensors, electronic devices, heterogeneous catalysis as well as the processes of corrosion, friction and wear.

Programme module type:	Compulsory for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil.
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof C J Baddeley
Module teaching staff:	Prof C J Baddeley, Prof P A Wright

CH5714 Chemical Applications of Electronic Structure Calculations

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will build on the foundations laid in CH2701 and CH3712 and introduce further aspects and methods of modern computational chemistry related to the electronic structures of atoms and molecules. It will be shown how results of such calculations can be used to complement, interpret, and guide experiments in many areas of chemistry.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof M Buehl
Module teaching staff:	Prof M Buehl, Dr J B O Mitchell

CH5715 Energy Conversion and Storage

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

In our efforts to mitigate global warming it is essential to develop new and improved methods of generation and storage of energy. Foremost among these methods are the electrochemical technologies of batteries and fuel cells. In this module we will discuss the technical details and applications of such devices. Particular emphasis will be placed on the underlying electrochemistry and materials chemistry.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil Optional for MSc in Geochemistry
Anti-requisite(s):	CH4712
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R T Baker
Module teaching staff:	Dr R T Baker, Prof J T S Irvine

CH5716 Processing of Materials

SCOTCAT Credits:	10	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module focuses on the processing of materials. Fundamental materials properties such as crystallinity, composition, crystal phase, phase mixing, domain structure, grains and grain boundaries, porosity and pore structure will be covered and the main methods used to control these properties in order to develop and improve materials for specific applications will be addressed. Processes including casting, extrusion, physical and chemical vapour deposition, calcination, sintering, annealing, plasma treatments, mechanical working, crystallisation and dopant addition will be described and explained. Applications in high-value metals, ceramics and semiconductor materials will be emphasised.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof J T S Irvine
Module teaching staff:	Prof J T S Irvine, Dr M Cassidy

CH5717 Nanostructured Materials

SCOTCAT Credits:	10	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module will introduce the concepts and science behind the design and synthesis of a wide range of nanostructures and the application of these structures in functional materials and devices. The relationship between nanoscale structure and composition and macroscale properties and behaviour will be emphasised. Structures will be classified and introduced in terms of their number of dimensions: clusters, nanoparticles and quantum dots (0-D); nanotubes, nanowires and nanorods (1-D); nanosheets and films (2-D); and porous crystals, mesoporous structures and metal-organic frameworks (3-D). Other specific topics will include the science of clusters, molecular assemblies and assemblies of nanostructures. Novel carbon based materials, including simple and functionalised fullerenes, carbon nanotubes and graphene and related materials will be described and their physical and chemical properties related to their structure and bonding. Advanced characterisation techniques and applications related to nanotechnology, MEMs, biomaterials, catalysis, and optical and magnetic devices will be addressed.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof W Zhou
Module teaching staff:	Prof W Zhou, Prof M Buck

Master of Philosophy Chemistry

Programme Requirements

Chemistry - MPhil
CH5442 and 60 credits chosen, with the approval of the Programme Director from the following: CH4461, CH4514, CH4515, CH4612, CH4614, CH4615, CH4715, CH4716, CH4717, CH5511, CH5516, CH5517, CH5518, CH5611, CH5612, CH5613, CH5614, CH5616, CH5711, CH5713, CH5714, CH5715, CH5716, CH5717.

Compulsory module:

CH5442 Chemistry Research Project for First Year MPhil				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
The research project for MPhil aims to develop the students' skills in the following areas: experimental design and problem-solving; abstraction, evaluation and interpretation of data in the chemical literature; practical skills and teamwork; communication of results orally and in a dissertation. The project will be selected and supervised by a member of the academic staff. It will contain a significant literature survey.				
Programme module type:	Compulsory for Chemistry MPhil.			
Learning and teaching methods and delivery:	**Weekly contact**: 540 hours spread over both semesters and summer vacation.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr P Kilian			
Module teaching staff:	all staff			

Optional modules:

CH4461 Integrating Chemistry				
SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			
This is a general chemistry module aimed at developing and consolidating fundamental aspects of basic understanding. Students will be encouraged to gain a deeper understanding of elementary core material by a combination of discussion, general reading, essay work and problem solving at a more advanced level than previously required. Students will be expected to read externally on related topics. In addition, each student will be required to submit an essay which will be on a topic relevant to the broader issues of chemical study and knowledge. The problems will apply the knowledge gained in Level 2000 Chemistry modules.				
Programme module type:	Optional for Chemistry MPhil			
Anti-requisite(s):	CH5461			
Learning and teaching methods and delivery:	**Weekly contact**: 2 classes per week over 8 weeks (Weeks 3-11) and a total of 3 x 1-hour seminars			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	Dr R Schaub			
Module teaching staff:	all staff			

CH4514 Advanced Metal Chemistry

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	1	
Planned timetable:	To be arranged.				

This module covers the heavier d-block and f-block metals and also the theory behind bonding, magnetism and electronic spectroscopy in d-block metal complexes. At the end of the module students should be in a position to understand fully the nature of bonding in d- and f-block metal systems, to understand the electronic spectra of d-block complexes and to rationalise trends in chemical properties both down and across the periodic table. The module also aims to explore the role played by inorganic systems in biology and their growing importance in medicine. There will also be discussion of the mechanisms of action of some inorganic systems in biology.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science
	Optional for Chemistry MPhil
	Optional for MSc in Geochemistry
Pre-requisite(s):	for MSc in Geochemistry require BSc in Chemistry
Anti-requisite(s):	CH4455
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr B E Bode
Module teaching staff:	Dr E Zysman-Colman, Dr B E Bode

CH4515 Advanced Main Group Chemistry

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	2	
Planned timetable:	To be arranged.				

This module discusses the importance of and structural similarities between rings, cages and clusters particularly in main group chemistry. The general rules for predicting geometry in cage/cluster systems will be introduced and used to provide a framework for the range of systems to be discussed e.g. boranes, Zintl anions, phosphides. Further advanced topics in s and p block chemistry will be introduced, for example the stabilisation of heavier main group multiple bonds, low coordinate main group element centres, biradicaloids and use of weakly coordinating anions.

Programme module type:	Optional for Chemistry MPhil.
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr P Kilian
Module teaching staff:	Dr P Kilian, Dr A Stasch

CH4612 Blockbuster Pharmaceuticals

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	2	

Planned timetable:	To be arranged.

The module will discuss case studies from the most successful pharmaceutical products. How the compounds came to be discovered, what diseases they are targeting, how they work and how they are made and delivered to the market. Compounds that will feature are aspirin, penicillin, AZT, 5-flourouracil, Zantac, viagra, ß-blockers, prozac etc.

Programme module type:	Optional for Chemistry MPhil.
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total, plus a half day site visit.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof D O'Hagan
Module teaching staff:	Prof D O'Hagan and visiting industrial lecturers

CH4614 Heterocyclic and Pericyclic Chemistry

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	1	

Planned timetable:	To be arranged.

This module covers the important areas of heterocyclic and pericyclic chemistry in detail. In heterocyclic chemistry, the nomenclature and numbering of single and fused ring systems, and structure, reactivity, synthesis and applications of the main five and six-membered ring systems with one and two heteroatoms will be covered. Selected industrial syntheses of heterocyclic medicinal compounds are used to illustrate the basic principles as well as the factors to be considered in large scale synthesis. In pericyclic chemistry, a frontier molecular orbital approach based on the Woodward-Hoffmann rules will be applied to pericyclic reactions and used to provide an understanding of the energetics and stereochemistry of Diels-Alder and 1,3-dipolar cycloaddition reactions as well as electrocyclic processes and sigmatropic rearrangements. Synthetic applications of these processes will also be illustrated.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science
	Optional for Chemistry MPhil
Anti-requisite(s):	CH4456
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total, plus a half-day site visit.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R A Aitken
Module teaching staff:	Dr R A Aitken, Dr E R Kay

CH4615 Fragrance, Food and Colour Chemistry

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	2	
Planned timetable:	To be arranged.				

This module considers three areas where applications of organic chemistry have been able to benefit society and given rise to important industries. The fragrance, perfumery and food flavouring industry will be covered from the early extraction of essential oils to the modern marketplace with an overview of the key structural features required for perfumes and flavours and some major manufacturing processes. The chemical constituents of food will be considered with an emphasis on health effects and the molecular mechanism of antioxidants, vitamins and other food constituents. The chemistry of organic dyes and pigments will be discussed including the historical development of colour compounds and how these affected society and art. Coloured compounds in nature will also be discussed.

Programme module type:	Optional for Chemistry MPhil.
Anti-requisite(s):	CH4613
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R A Aitken
Module teaching staff:	Dr R A Aitken, Dr R J M Goss, Prof T K Smith

CH4715 Functional Materials and Electrons in Solids

SCOTCAT Credits:	10	SCQF Level 10	**Semester:**	2	
Planned timetable:	To be arranged.				

The module introduces the physical concepts of dielectrics, semiconductors, and metals. Electronic properties of interfaces and thin films which are fundamental to devices such as microprocessors, lasers in CD players, or solar cells will be discussed.

Programme module type:	Optional for Chemistry MPhil.
Anti-requisite(s):	CH5712
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr F D Morrison
Module teaching staff:	Dr F D Morrison, Prof M Buck

CH4716 Electrochemistry and Computational Chemistry

SCOTCAT Credits:	10	SCQF Level 10	Semester:	1
Planned timetable:	To be arranged.			

One component of the module covers electrolyte solutions and ionic conductivity, equilibrium electrochemistry, electrode processes and applications of electrochemistry.

The other component is a computational element, and will introduce aspects of modern computational chemistry related to the electronic structure of atoms, molecules and solids to achieve a basic understanding of the underlying approximations made in practical calculations, and consider applications of computed structures and energies in chemistry.

Programme module type:	Optional for MPhil in Chemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of lectures (x 9 weeks) and 2 hours of tutorials over the semester.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof M Buck
Module teaching staff:	Prof M Buck, Prof M Buehl

CH4717 Fundamentals of the Spectroscopy of Molecules and Solids

SCOTCAT Credits:	10	SCQF Level 10	Semester:	2
Planned timetable:				

This module describes the properties of matter relevant to their interaction with electromagnetic radiation. Absorption, transmission, reflection and diffraction of light across the electromagnetic spectrum are covered. There is a focus on microwave, infrared and NMR spectroscopy. Solid-state NMR spectroscopy will be compared with solution-state NMR and the advantages of solid-state NMR in obtaining structural information discussed.

Programme module type:	Optional for Chemistry MPhil.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of lectures (x 9 weeks) and 2 hours of tutorials over the semester.
Assessment pattern:	2-Hour Written Examination = 100%
Module coordinator:	Dr R Schaub
Module teaching staff:	Dr R Schaub, Prof S E M Ashbrook

CH5511 Homogeneous Catalysis

SCOTCAT Credits:	10	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module discusses the use of metal based systems in organic transformations and a detailed treatment of homogeneous catalysis. Important processes in the petrochemicals industry will be used to exemplify the principles described.

Programme module type:	Compulsory for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil. Optional for MSc in Geochemistry.
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	TBC
Module teaching staff:	Prof R P Tooze, Prof D Cole-Hamilton

CH5517 Advanced Physical Inorganic Chemistry

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module involves distinct sections on photophysics of coordination complexes including theory and applications, and inorganic 'open shell' compounds including synthesis, characterisation and applications of paramagnetic inorganic species.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr E Zysman-Colman
Module teaching staff:	Dr E Zysman-Colman, Dr B Bode

CH5518 Blockbuster Solids

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module covers two major topics. The first deals with modern materials which have a major impact on our lives, focusing on how the material's structure influences its electrical, magnetic and thermal properties. In the second section, emphasis will be placed on metal organic frameworks and how they can be used for the storage and release of gases.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof P Lightfoot
Module teaching staff:	Prof P Lightfoot, Prof R E Morris

CH5611 Asymmetric Synthesis

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module discusses the methods available for the synthesis of chiral compounds. After a detailed introduction to the specialised terminology and analytical methods used, the main methods using chiral auxiliaries, chiral reagents and chiral catalysts will be described. This will then be combined with a consideration of synthetic strategy and total syntheses of several complex chiral compounds will be discussed.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr M L Clarke
Module teaching staff:	Dr M L Clarke, Prof A D Smith

CH5612 Natural Products, Biosynthesis and Enzyme Co-factors

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

The module will investigate the biosynthesis of the main natural products groups (polyketides, terpenes, alkaloids). Unifying features of their structures and biosynthesis will be described and methods for studying the biosynthesis of natural products will be taught (isotope tracer methods). The common enzyme co-factors (PLP, TPP, NADH, co-enzyme B12) will be highlighted and their mechanistic role in mediating enzymatic transformations will be explored.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof D O'Hagan
Module teaching staff:	Prof D O'Hagan, Prof T K Smith, Dr G J Florence

CH5613 Reactive Intermediates

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

Aspects of the organic chemistry of the most important reactive intermediates viz.: carbo-cations, carbanions, free radicals, carbenes, nitrenes and arynes will be covered. Means of generating each type of reactive intermediate will be introduced. The key reactions of each intermediate will be reviewed and their characteristic reactions highlighted. An understanding of the use of each species in organic synthesis and of their significance in mechanistic analysis will be developed.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R A Aitken
Module teaching staff:	Dr R A Aitken, Dr I A Smellie

CH5614 Chemical Biology

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module will examine new methodologies for drug discovery. An overview of the processes of target discovery, lead discovery and lead optimisation will be given. The use of structural biology (protein crystallography, NMR), computational chemistry and combinatorial chemistry in 'rational drug design' will be described. The module will look at the technologies behind combinatorial library design, synthesis and high throughput screening. Broad and focused libraries will be discussed. Several examples will be explored, such as the development of drugs against AIDS and influenza.

Programme module type:	Optional for MSc in Catalysis Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	TBC
Module teaching staff:	Prof N J Westwood, TBC

CH5616 Molecular Recognition

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module offers a systematic introductory treatment of molecular recognition, emphasising fundamental concepts of intermolecular interactions and molecular recognition in solution. The nature, strength and directionality of orbital, hydrogen-bonding and hydrophobic interactions will be explored. Spectroscopic and other techniques for studying these interactions will be outlined with examples.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof D Philp
Module teaching staff:	Prof D Philp, Dr E R Kay

CH5711 Advanced Spectroscopic Methods

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module describes the importance of more advanced spectroscopic methods for the elucidation of structure and properties of increasingly complex molecules and materials. Particular attention will be paid to those techniques which exploit synchrotron radiation.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Pre-requisite(s):	for MSc in Geochemistry require BSc in Chemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials per week.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof C J Baddeley
Module teaching staff:	Prof C J Baddeley, Dr G Haehner

CH5713 Surface Science and Heterogeneous Catalysis

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The module describes the Chemistry of solid surfaces with particular reference to the structure of metal, oxide and semiconductor surfaces. The techniques available to characterise the uppermost atomic layers of a solid are presented and the novel reactivity of surfaces is linked to applications in sensors, electronic devices, heterogeneous catalysis as well as the processes of corrosion, friction and wear.

Programme module type:	Compulsory for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil.
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof C J Baddeley
Module teaching staff:	Prof C J Baddeley, Prof P A Wright

CH5714 Chemical Applications of Electronic Structure Calculations

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will build on the foundations laid in CH2701 and CH3712 and introduce further aspects and methods of modern computational chemistry related to the electronic structures of atoms and molecules. It will be shown how results of such calculations can be used to complement, interpret, and guide experiments in many areas of chemistry.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof M Buehl
Module teaching staff:	Prof M Buehl, Dr J B O Mitchell

CH5715 Energy Conversion and Storage

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

In our efforts to mitigate global warming it is essential to develop new and improved methods of generation and storage of energy. Foremost among these methods are the electrochemical technologies of batteries and fuel cells. In this module we will discuss the technical details and applications of such devices. Particular emphasis will be placed on the underlying electrochemistry and materials chemistry.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Anti-requisite(s):	CH4712
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R T Baker
Module teaching staff:	Dr R T Baker, Prof J T S Irvine

CH5716 Processing of Materials

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module focuses on the processing of materials. Fundamental materials properties such as crystallinity, composition, crystal phase, phase mixing, domain structure, grains and grain boundaries, porosity and pore structure will be covered and the main methods used to control these properties in order to develop and improve materials for specific applications will be addressed. Processes including casting, extrusion, physical and chemical vapour deposition, calcination, sintering, annealing, plasma treatments, mechanical working, crystallisation and dopant addition will be described and explained. Applications in high-value metals, ceramics and semiconductor materials will be emphasised.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof J T S Irvine
Module teaching staff:	Prof J T S Irvine, Dr M Cassidy

CH5717 Nanostructured Materials

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will introduce the concepts and science behind the design and synthesis of a wide range of nanostructures and the application of these structures in functional materials and devices. The relationship between nanoscale structure and composition and macroscale properties and behaviour will be emphasised. Structures will be classified and introduced in terms of their number of dimensions: clusters, nanoparticles and quantum dots (0-D); nanotubes, nanowires and nanorods (1-D); nanosheets and films (2-D); and porous crystals, mesoporous structures and metal-organic frameworks (3-D). Other specific topics will include the science of clusters, molecular assemblies and assemblies of nanostructures. Novel carbon based materials, including simple and functionalised fullerenes, carbon nanotubes and graphene and related materials will be described and their physical and chemical properties related to their structure and bonding. Advanced characterisation techniques and applications related to nanotechnology, MEMs, biomaterials, catalysis, and optical and magnetic devices will be addressed.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof W Zhou
Module teaching staff:	Prof W Zhou, Prof M Buck

School of Classics

Taught Programmes

Postgraduate Diploma:
(this is also the Taught element of the MLitt and MPhil programme):

Classics

MLitt:
Classics

MPhil:
Classics

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Masters of Letters Classics

Programme Requirements

Master of Letters Classics - MLitt
60 credits from Module List: CL5001 - CL5002 **and** CL5099 (60 credits) **and** ((30 credits from Module List: CL5011, CL5021 **and** 30 credits from Module List: CL5012, CL5022) **or** ((15 credits from Module List: CL5111, CL5121 **and** 15 credits from Module List: CL5112 - CL5122) **and** 40 credits from Module List: (GK1001+2),(GK1005+6),(GK2001+2),(GK2003+4),(LT1001+2),(LT1003+4),(LT2001 +2),(LT2003+4),(DI1004+2002)))

Postgraduate Diploma: 120 credits from MLitt taught element (excluding CL5099)

MPhil: 120 credits from MLitt taught element (excluding CL5099) plus a thesis of not more than 40,000 words

Compulsory modules:

CL5001 Themes and Methods in Classical Research 1					
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1	
Planned timetable:	11.00 am - 1.00 pm Fri, 1.00 pm - 2.00 pm Thu				
This module forms the first part of the core training provided in the MLitt in Classics. The focus of the first semester's core is on the sources for the study of the Classical world, how to access them (i.e. the resources available for classical research), and how to use this material sensitively and appropriately. The module is appropriate for all MLitt students regardless of their specific interests, and covers the full range of evidence from antiquity, including literary, philosophical, historiographical and other written sources (including how to work with fragmentary sources, textual transmission and other questions); material evidence (including ancient art, excavation, field survey, museum collections). The module also includes a number of workshop sessions on practical skills (e.g. presentations, research proposals etc.) and on theoretical approaches to classical evidence (e.g. narratology, practical criticism).					
Programme module type:	Compulsory for Classics				
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 8 weeks), 1-hour practical classes (x 8 weeks), 2 hours of fieldwork in total				
Assessment pattern:	48-hour Take-home Practical Examination = 75%, Coursework = 25%				
Module coordinator:	Prof T Harrison				
Module teaching staff:	Team taught				

CL5002 Themes and Methods in Classical Research 2

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Fri, 1.00 pm - 2.00 pm Thu			

This module forms the second part of the core training provided in the MLitt in Classics. The focus of the second semester's core is a series of seminars structured around themes in classical research (e.g. the environment, performance, reception). The module is appropriate for all MLitt students regardless of their specific interests. The module also includes a number of workshops on practical 'life skills', e.g. careers (in Classics and beyond), publishing, teaching, outreach and impact, and a small number of theory workshops which support the thematic seminars by introducing students to some key theoretical approaches used in research on the Classical world.

Programme module type:	Compulsory for Classics
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 11 weeks), 1-hour workshop (x 8 hours); oral presentations (up to maximum of 10 hours total)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Harrison
Module teaching staff:	Team taught

CL5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Classics MLitt Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Prof T Harrison
Module teaching staff:	Individual supervisors assigned as required

One of:

CL5011 Greek History and Material Culture

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			

Through a series of focused case-studies, this module will introduce students to a range of areas of current research in ancient Greek history and enable them to design their own short research project under the guidance of an individual supervisor. The precise range of topics covered changes each year, but typical topics might include historiography; magic, religion and belief; gender, ecology; the polis in the Hellenistic world; and many others that reflect the ever-changing face of ancient history.

Programme module type:	Optional for the PG Diploma, MLitt, or taught stage of the MPhil in Classics
Anti-requisite(s):	CL5111
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 8 weeks) and up to 3 hours of supervisory meetings.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Harrison
Module teaching staff:	Team taught

CL5021 Latin Literary Culture

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			

This module is aimed at students studying for the MLitt in Classics specialsing in Latin literature and culture but not taking language modules as part of the MLitt. It shares seminars with CL5121. Through a series of focussed case-studies this module will introduce students to key debates and concepts central to modern research on Latin literary culture and enable them to devise their own short and independent research project under the guidance of an individual supervisor. The precise range of topics covered changes each year, but typical topics might include the relationship between politics and literature from republic to late antiquity; the impact of literary and cultural theory on the study of ancient texts; the role of literature in forming cultural identities; the development and interrelation of key genres and modes of literary interaction, including poetry, historiography, fiction and oratory; the reception of Latin texts from late antiquity to the modern day.

Programme module type:	Optional for Classics - PG Diploma, MLitt or taught stage of MPhil
Anti-requisite(s):	CL5121
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 8 weeks) and up to 3 hours of supervisory meetings.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Buckley
Module teaching staff:	various staff in the School of Classics

One of:

CL5012 Roman History and Material Culture

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

Through a series of focused case-studies, this module will introduce students to a range of areas of current research in Roman history and enable them to design their own short research project under the guidance of an individual supervisor. The precise range of topics covered changes each year, but typical topics might include the government of the Roman empire; the economy of the Roman world; demographics; the city of Rome; the Roman army; religion and Late Antiquity.

Programme module type:	Optional for the PG Diploma, MLitt, or taught section of the MPhil in Classics.
Anti-requisite(s):	CL5112
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 8 weeks) and up to 3 hours of supervisory meetings.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Harrison
Module teaching staff:	Team taught

CL5022 Greek Literary Culture

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

This module is aimed at students studying for the MLitt in Classics, specialising in Greek literature and culture but not taking language modules. It shares seminars with CL5122. Through a series of focused case studies, this module introduces students to key areas and concepts central to modern research on Greek literary culture and enables them to design their own short research project under the guidance of an individual supervisor. The precise range of topics covered changes each year, but typical topics might include the relationship between politics and literature in ancient Greece from the archaic Greek to the imperial Roman period, the impact of literary and cultural theory on the study of ancient texts, literature and the formation of cultural identity, the development and interrelation of key genres and modes of literary interaction, including poetry, oratory, historiography and fictional texts, and the reception of ancient Greek texts from late antiquity to the modern day.

Programme module type:	Optional for Classics - PG Diploma, MLitt or taught stage of the MPhil
Anti-requisite(s):	CL5122
Learning and teaching methods and delivery:	**Weekly contact**: §1 x 2-hour seminar (x 8 weeks) and up to 3 hours of supervisory meetings
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Wiater
Module teaching staff:	Dr N Wiater, Prof S Halliwell, Prof J Konig, Dr A Long, Dr J Hesk

One of:

CL5111 Greek History and Material Culture (Language Option)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			

This module is aimed at students who are studying Ancient History and also taking Latin or Greek language classes. It shares seminars with CL5011 but the assessment requirements and credit load are reduced. Through a series of focused case-studies, this module will introduce students to a range of areas of current research in ancient Greek history and enable them to design their own short research project under the guidance of an individual supervisor. The precise range of topics covered changes each year, but typical topics might include historiography; magic, religion and belief; gender; ecology; the polis in the Hellenistic world; and many others that reflect the ever-changing face of ancient history.

Programme module type:	Optional for the PG Diploma, MLitt, or taught section of the MPhil in Classics.
Anti-requisite(s):	CL5011
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 8 weeks) and up to 3 hours of supervisory meetings.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Harrison
Module teaching staff:	Team taught

CL5121 Latin Literary Culture (Language Option)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			

This module is aimed at students who are working on Latin literature and culture and also taking language classes. It shares seminars with CL5021 but the assessment requirements and credit load are reduced. Through a series of focussed case-studies this module will introduce students to key areas and concepts central to modern research on Latin literary culture and enable them to devise their own short and independent research project under the guidance of an individual supervisor. The precise range of topics covered changes each year, but typical topics might include the relationship between politics and literature from republic to late antiquity; the impact of literary and cultural theory on the study of ancient texts; the role of literature in forming cultural identities; the development and interrelation of key genres and modes of literary interaction, including poetry, historiography, fiction and oratory; and the reception of Latin texts from late antiquity to the modern day.

Programme module type:	Optional for Classics - PG Diploma, MLitt or taught stage of MPhil
Anti-requisite(s):	CL5021
Learning and teaching methods and delivery:	**Weekly contact**: 1x 2-hour seminar (x 8 weeks), up to 3 hours of one-to-one supervisory meetings.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Buckley
Module teaching staff:	Various staff in the School of Classics

One of:

CL5112 Roman History and Material Culture (Language Option)

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	TBC			

This module is aimed at students who are studying Ancient History and also taking Latin or Greek language classes. It shares seminars with CL5012 but the assessment requirements and credit load are reduced. Through a series of focused case-studies, this module will introduce students to a range of areas of current research in ancient Roman history and enable them to design their own short research project under the guidance of an individual supervisor. The precise range of topics covered changes each year, but typical topics might include the government of the Roman empire; the economy of the Roman world; demographics; the city of Rome; the Roman army; religion and Late Antiquity.

Programme module type:	Optional for the PG Diploma, MLitt, or taught section of the MPhil in Classics.
Anti-requisite(s):	CL5012
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 8 weeks) and up to 3 hours of supervisory meetings.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Harrison
Module teaching staff:	Team taught

CL5122 Greek Literary Culture (Language Option)

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	TBC			

This module is aimed at students who are studying Greek literature and also taking language classes. It shares seminars with CL5022 but the assessment requirements and credit load are reduced. Through a series of case studies, this module will introduce students to key areas and concepts in modern research on ancient Greek literature and culture and enable them to design their own short research project under the guidance of an individual supervisor. The precise topics covered change each year, but typical topics might include the relationship between politics and literature in ancient Greece from the archaic to the imperial Roman period, the impact of literary and cultural theory on the study of ancient texts, literature and the formation of cultural identity, the development and interrelation of key genres and modes of literary interaction, including poetry, oratory, historiography and fictional texts, and the reception of ancient Greek texts from late antiquity to the modern day.

Programme module type:	Optional for Classics - PG Diploma, MLitt or taught stage of MPhil
Anti-requisite(s):	CL5022
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 8 weeks) and up to 3 hours of supervisory meetings.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Wiater
Module teaching staff:	Dr N Wiater, Prof S Halliwell, Prof J Konig, Dr A Long, Dr J Hesk

Greek and Latin language modules:

GK1001 Greek Language for Beginners

SCOTCAT Credits:	20	SCQF Level 7	Semester:	1
Planned timetable:	10.00 am			

This module provides a thorough grounding in the Greek language for beginners or near beginners. It is suitable both for students who intend to take further Greek modules and for those who wish to acquire a basic knowledge of Greek, which is useful for the study of other subjects in the Faculty such as History or English.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Anti-requisite(s):	GK1005	Required for:	DI2201, DI4613, DI4615, GK1002
Learning and teaching methods and delivery:	**Weekly contact**: 2 classes in Orientation Week then 4 classes x 10 weeks.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (4 class tests)		
Module coordinator:	Dr J Coderch		
Module teaching staff:	Dr J Coderch		

GK1002 Greek Literature for Beginners

SCOTCAT Credits:	20	SCQF Level 7	Semester:	2
Planned timetable:	10.00 am			

This module is designed to follow on from GK1001. As such, GK1002 comprises language classes intended to supplement the topics covered in semester 1 and to prepare students for the challenge of reading and interpreting Greek literature.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Anti-requisite(s):	GK1006	Required for:	GK2003
Learning and teaching methods and delivery:	**Weekly contact**: 4 classes		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (4 class tests)		
Module coordinator:	Dr J Coderch		
Module teaching staff:	Dr J Coderch		

GK1005 Greek Language and Literature 1

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	1
Planned timetable:	10.00 am			

This module is designed for students who have already taken ancient Greek to Higher, A level or equivalent standard. Set texts for this module will be studied in the original Greek prose and verse. Classes will cover both detailed study of the set texts and linguistic/translation exercises designed to enhance students' knowledge of Greek. The overall aims of the module are to build up the confidence of students in reading and interpreting Greek literature in its historical and cultural context. Students will read one work of Greek prose and one work of Greek verse.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Pre-requisite(s):	Higher or A-level Greek or equivalent.		
Anti-requisite(s):	GK1001	**Required for:**	GK1006
Learning and teaching methods and delivery:	**Weekly contact**: 3 or 4 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (essay, 20%; 3 class tests, 30%)		
Module coordinator:	TBC		
Module teaching staff:	Team taught		

GK1006 Greek Pastoral and Passion

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	2
Planned timetable:	10.00 am			

This module, designed to follow on from GK1005, will introduce students to two new areas of Greek literature, between which there are interesting and important thematic connections: bucolic or pastoral poetry (the Idylls of Theocritus) and the romantic novel (Longus). Both these set texts will be studied in the original Greek. Classes will cover both detailed study of the set texts and linguistic/translation exercises designed to enhance students' knowledge of Greek.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Pre-requisite(s):	GK1005, Higher or A-level Greek or equivalent.		
Anti-requisite(s):	GK1002	**Required for:**	GK2001
Learning and teaching methods and delivery:	**Weekly contact**: 3 or 4 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (essay, 20%; 3 class tests, 30%)		
Module coordinator:	TBC		
Module teaching staff:	Team taught		

GK2001 The Landscape of Greek Prose (A)

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	1
Planned timetable:	10.00 am			

This module, designed to follow on from GK1006, studies a wide range of Greek prose texts. All set texts will be studied in the original Greek. The module starts with the Socratic dialogues of Xenophon, and then turns to Greek oratory, Greek historiography and Greek writing in the Roman empire. The module will illustrate the scope and vitality of the Greek literary tradition, and it will give students a grounding in the main genres of Greek prose writing. Classes will include both detailed study of the set texts in their cultural context and linguistic/translation exercises designed to enhance students' knowledge of Greek. The module as a whole is carefully structured so as to integrate linguistic progress with widened horizons in the student's knowledge of Greek literature.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Pre-requisite(s):	GK1006		
Anti-requisite(s):	GK2003	**Required for:**	GK2002
Learning and teaching methods and delivery:	**Weekly contact**: 3 or 4 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (essay, 20%, 3 class tests, 30%)		
Module coordinator:	Dr N Wiater		
Module teaching staff:	team taught		

GK2002 The Landscape of Greek Poetry (A)

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	2
Planned timetable:	10.00 am			

This module, designed to follow on from GK2001, offers a carefully balanced combination of literary and linguistic study. Students will study a diverse range of ancient poetry in the original Greek, starting with Homer's Iliad. It then introduces students to key genres of the Greek poetic tradition, including lyric, elegy and drama. Classes will cover both detailed study of the set texts in their cultural context and linguistic/translation exercises designed to enhance students' knowledge of Greek.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Pre-requisite(s):	GK2001	**Anti-requisite(s):**	GK2004
Learning and teaching methods and delivery:	**Weekly contact**: 3 or 4 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (essay, 20%; 3 class tests, 30%)		
Module coordinator:	Dr N Wiater		
Module teaching staff:	Team taught		

GK2003 The Landscape of Greek Prose (B)

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	1
Planned timetable:	10.00 am			

This module, designed to follow on from GK1002, studies a wide range of Greek prose texts. All set texts will be studied in the original Greek. The module starts with the Socratic dialogues of Xenophon, and then turns to Greek oratory, Greek historiography and Greek writing in the Roman empire. The module will illustrate the scope and vitality of the Greek literary tradition, and it will give students a grounding in the main genres of Greek prose writing. Classes will include both detailed study of the set texts in their cultural context and linguistic/translation exercises designed to enhance students' knowledge of Greek. The module as a whole is carefully structured so as to integrate linguistic progress with widened horizons in the student's knowledge of Greek literature.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Pre-requisite(s):	GK1002		
Anti-requisite(s):	GK2001	**Required for:**	GK2004
Learning and teaching methods and delivery:	**Weekly contact**: 4 or 5 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (essay, 20%, 3 class tests, 30%)		
Module coordinator:	Dr N Wiater		
Module teaching staff:	Team taught		

GK2004 The Landscape of Greek Poetry (B)

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	2
Planned timetable:	10.00 am			

This module, designed to follow on from GK2003, offers a carefully balanced combination of literary and linguistic study. Students will study a diverse range of ancient poetry in the original Greek, starting with Homer's Iliad. It then introduces students to key genres of the Greek poetic tradition, including lyric, elegy and drama. Classes will cover both detailed study of the set texts in their cultural context and linguistic/translation exercises designed to enhance students' knowledge of Greek.

Programme module type:	Optional for all Taught Postgraduate Programmes in the School of Classics except Greek		
Pre-requisite(s):	GK2003	**Anti-requisite(s):**	GK2002
Learning and teaching methods and delivery:	**Weekly contact**: Normally 4 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (essay, 20%, 3 class tests, 30%)		
Module coordinator:	Dr N Wiater		
Module teaching staff:	Team taught		

LT1001 Elementary Latin 1

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	1
Planned timetable:	3.00 pm			

This module provides a systematic introduction to the Latin language, concentrating on morphology, vocabulary, and basic syntax, and will enable students to read simplified Latin texts and translate sentences from Latin into English and vice versa. It is complemented by LT1002, and will thus give access to Latin at higher levels, but it may also be taken by students whose main interests lie in other areas, such as histories, foreign languages and English. It is also suitable for students who have taken some Latin previously, but not to Higher or A-Level, or who have taken Higher or A-Level Latin on reduced time.

Programme module type:	Optional for Classics		
Anti-requisite(s):	LT1003	**Required for:**	LT1002
Learning and teaching methods and delivery:	**Weekly contact**: Normally 4 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (4 class tests)		
Module coordinator:	Dr J Coderch		
Module teaching staff:	Team taught		

LT1002 Elementary Latin 2

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	2
Availability restrictions:				
Planned timetable:	3.00 pm			

This module builds on the work done in LT1001, and its function is to develop knowledge of Latin morphology, syntax and vocabulary and to enable students to read Latin texts. Together with LT1001 it may form a basis for Latin at higher levels, but it will also be useful to students of the histories, foreign languages, English and other subjects.

Programme module type:	Optional for Classics		
Anti-requisite(s):	LT1004	**Required for:**	LT2003
Learning and teaching methods and delivery:	**Weekly contact**: 4 classes.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50% (4 class tests)		
Module coordinator:	Dr J Coderch		
Module teaching staff:	Dr J Coderch		

LT1003 World of Latin 1

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	1
Planned timetable:	3.00 pm			

The aims of this module, like LT1004, are to enhance understanding of Latin grammar and syntax, to increase vocabulary, to give a basic understanding of style, and to develop skills in translating and interpreting literary texts. A selection of classical Latin texts are studied, and student are encouraged and assisted to practice reading independently and in extenso. There will be tutorials to support this work and to help with the translation and appreciation of these and other Latin prose and verse authors.

Programme module type:	Optional for Classics		
Pre-requisite(s):	Higher or A-Level Latin		
Anti-requisite(s):	LT1001	**Required for:**	LT1004
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 4 classes.		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40% (2 literary criticisms, 20%, 2 class tests, 20%)		
Module coordinator:	Dr T Geue		
Module teaching staff:	Team taught		

LT1004 World of Latin 2

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	2
Availability restrictions:				
Planned timetable:	3.00 pm			

This module aims to build on the skills acquired in LT1003, and to introduce students to a wider range of Latin literature. Texts studied may include early or mediaeval Latin, as well as classical literature.

Programme module type:	Optional for Classics		
Pre-requisite(s):	LT1003		
Anti-requisite(s):	LT1002	**Required for:**	LT2001
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 4 classes.		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40% (2 literary criticisms, 20%, 2 class tests, 20%)		
Module coordinator:	Dr R Rees		
Module teaching staff:	Team taught		

LT2001 Latin Language and Literature 1

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	1
Planned timetable:	2.00 pm			

The aim of this module is to foster the student's acquaintance with classical Latin and to explore both prose and verse authors. The authors chosen may vary from year to year. Particular attention is paid to the development of their ideas, literary styles, and genres. There will be lectures on the authors set, seminars to discuss broader themes within the module, and tutorials to monitor and assist progress in study of the language and interpretation of the literature.

Programme module type:	Optional for Classics		
Pre-requisite(s):	LT1004		
Anti-requisite(s):	LT2003	**Required for:**	LT2002
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 4 classes		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40% (essay, 20%, 2 class tests, 20%)		
Module coordinator:	Dr E Gee		
Module teaching staff:	Team taught		

LT2002 Latin Language and Literature 2

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	2
Planned timetable:	2.00 pm			

In complement to the programme of LT2001, this module aims to consolidate the student's command of the language in preparation for study at Honours level, and in literature brings the student to further genres and authors, in prose and verse. There will be lectures on the authors set, seminars on broader themes, and, as in LT2001, tutorials to monitor and assist progress in study of the language and interpretation of the literature.

Programme module type:	Optional for Classics		
Pre-requisite(s):	LT2001	**Anti-requisite(s):**	LT2002
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 4 classes		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40% (essay, 20%, 2 class tests, 20%)		
Module coordinator:	Dr A König		
Module teaching staff:	Team taught		

Classics - MLitt, PG Diploma & MPhil - 2017/8 - August 2017

LT2003 Latin in Progress 1

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	1
Planned timetable:	2.00 pm			

Texts and topics for this module will be similar to those for LT2001, but the length of texts and methods of study will be appropriate to the needs of students who have done the beginners' modules LT1001 and LT1002.

Programme module type:	Optional for Classics		
Pre-requisite(s):	LT1002		
Anti-requisite(s):	LT2001	**Required for:**	LT2004
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 4 classes per week, plus 8 hours of additional support classes.		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40% (1 literary criticism, 20%, 2 class tests, 20%)		
Module coordinator:	Dr E Gee		
Module teaching staff:	Team taught		

LT2004 Latin in Progress 2

SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	2
Availability restrictions:				
Planned timetable:	2.00 pm			

In this module the same prescribed texts and topics will be studied as in LT2002, but the length of texts and methods of study will be appropriate to the needs of students who have done the beginners' modules LT1001 and LT1002.

Programme module type:	Optional for Classics		
Pre-requisite(s):	LT2003	**Anti-requisite(s):**	LT2002
Learning and teaching methods and delivery:	**Weekly contact**: 3 classes.		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40% (1 literary criticism, 20%, 2 class tests, 20%)		
Module coordinator:	Dr A König		
Module teaching staff:	Team taught		

School of Computer Science

Taught Programmes

Postgraduate Diploma/MSc:
(this is also the Taught element of the MLitt and MPhil programme):

Advanced Computer Science
Advanced Computer Science with English Language
Artificial Intelligence
Artificial Intelligence with English Language
Computer Communication Systems
Computer Communication Systems with English Language
Computing & Information Technology
Computing & Information Technology with English Language
Data-Intensive Analysis
Human Computer Interaction
Human Computer Interaction with English Language
Information Technology
Information Technology with English Language
Management and Information Technology *(see section 15)*
Management and Information Technology with English Language
(see section 15)
Software Engineering
Software Engineering with English Language

MSc:
Dependable Software Engineering - European Masters

MPhil available in:
Computer Science
Artificial Intelligence
Computing and Information Technology
Human Computer Interaction
Information Technology
Information Technology with Management *(see section 15)*
Software Engineering

DEng:

Computer Science

Computer Science - Optional modules

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Advanced Computer Science

Programme Requirements

Advanced Computer Science - MSc
(CS5098 (60 credits) **or** CS5099 (60 credits)) **and**   IS5101 (15 credits) **and** CS5001 (15 credits) **and**   Between 0 and 30 credits from Module List: CS4100 - CS4450 **and**   Between 0 and 30 credits from Module List: IS5102 - IS5150 **and**   Between 30 and 105 credits from Module List: CS5003 - CS5089, ID5059   **Further requirements**   Students must select 180 credits.   **CS5001 is compulsory except when exempted following satisfactory performance in an assessment conducted by the school.**   **MPhil:**   120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 words

MPhil in Computer Science:

120 credits from Taught Element of Advanced Computer Science plus a thesis of up to 40,000 words

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

For the MSc EITHER

CS5098 Group Project and Dissertation in Computer Science

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5099
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5098			
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science

Advanced Computer Science with English Language

Programme Requirements

Advanced Computer Science with English Language - MSc
First semester 40 credits from Module List: ET5400 - ET5401 **and** CS5001 (15 credits) **Further requirements** Students must select 55 credits.
Second year (CS5098 (60 credits) **or** CS5099 (60 credits)) **and** ET5402 (20 credits) **and** IS5101 (15 credits) **and** Between 0 and 30 credits from Module List: CS4100 - CS4450 **and** Between 0 and 30 credits from Module List: IS5102 - IS5150 **and** Between 30 and 90 Module List: CS5003 - CS5089, ID5059 **Further requirements** Students must select 185 credits.

Computer Science - Advanced Computer Science with English - 2017/8 - September 2017

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75% Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).
Module coordinator:	Mr J Harvey
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell

ET5401 English for Computer Science 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	The student must be a user of English as an Additional Language
Co-requisite(s):	ET5400, CS5001 or CS5002
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Planned timetable:	To be arranged.

This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	ET5401
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year

Planned timetable:	To be arranged.

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5001 Object-Oriented Modelling, Design and Programming					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1	
Planned timetable:	Variable				

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5002 Programming Principles and Practice					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1	
Planned timetable:	Variable				

This module introduces computational thinking and problem solving skills to students who have no or little previous programming experience. It covers general programming concepts used in the development of software applications, such as data structures, functions, choice, iteration, recursion and input/output. An easy-to-learn programming language is used to illustrate these concepts, and programming skills are reinforced through practical assignments.

Programme module type:	Either CS5001 or CS5002 is compulsory for Computing and Information Technology and Human Computer Interaction Postgraduate Programmes.		
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.		
Anti-requisite(s):	CS5001	**Required for:**	CS5003
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

EITHER

CS5098 Group Project and Dissertation in Computer Science					
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer	
Planned timetable:	To be arranged.				

This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5099
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5099 Dissertation in Computer Science					
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer	
Planned timetable:	To be arranged.				

This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5098
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Masters in Artificial Intelligence

Programme Requirements

Artificial Intelligence - MSc
IS5101 (15 credits) **and** CS5001 (15 credits) **and** CS5010 (15 credits) **and** CS5011 (15 credits) **and** (CS4402 (15 credits) **or** CS5012 (15 credits)) **and**   Between 0 and 30 credits from Module List: CS4100 - CS4450 **and**   Between 0 and 30 credits from Module List: IS5102 - IS5150 **and**   Between 0 and 60 credits from Module List: CS5003 - CS5089, ID5059 **and**   (CS5098 (60 credits) **or** CS5099 (60 credits))   **Further requirements**   Students must select 180 credits.   **CS5001 is compulsory except when exempted following satisfactory performance in an assessment conducted by the school.**   **MPhil:**   120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 words

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5010 Artificial Intelligence Principles

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module covers foundational knowledge of Artificial Intelligence (AI). The module gives an overview of AI and its philosophy. It covers fundamental principles in AI: logical reasoning, reasoning in the presence of uncertainty, and machine learning. It shows how search is used to solve a variety of problems in AI. Notions such as agency and uncertainty in AI are covered. Finally, the philosophy of AI in practice and the philosophical problems in AI are shown.

Programme module type:	Compulsory for Artificial Intelligence Postgraduate Programme.		
	Optional for all Postgraduate Programmes in the School of Computer Science.		
Anti-requisite(s):	CS3105	**Required for:**	CS5011
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5011 Artificial Intelligence Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module covers practical design and implementation of Artificial Intelligence (AI). It provides grounding in AI technique, covering techniques in the areas of AI reasoning, planning, doing, and learning. Finally, it is shown how to implement AI ideas in software and how to evaluate such implementation.

Programme module type:	Compulsory for Artificial Intelligence Postgraduate Programme. Optional for other Postgraduate Programmes.		
Co-requisite(s):	CS5001, CS5010	**Required for:**	CS5012, CS5019
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

EITHER

CS5012 Language and Computation

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module covers the major aspects of natural language processing and speech understanding, including computational syntax, computational semantics, discourse processing, machine translation and speech recognition.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme. Optional for Postgraduate Programmes in the School of Computer Science.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS4402 Constraint Programming

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces constraint-based reasoning as a powerful mechanism for knowledge representation and inference. It provides a thorough grounding in the constraint satisfaction/constrained optimisation problem formalism, and covers both basic techniques for implementing constraint solvers and the use of advanced techniques with a modern solver.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme. Optional for Erasmus Mundus Dependable Software Systems Postgraduate Programme and other Postgraduate Programmes in the School
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%

EITHER

CS5098 Group Project and Dissertation in Computer Science

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5099
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5099 Dissertation in Computer Science

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5098
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science

Artificial Intelligence with English Language

Programme Requirements

Artificial Intelligence with English Language - MSc

First semester
40 credits from Module List: ET5400 - ET5401 **and**
CS5001 (15 credits)

Further requirements

Students must select 55 credits.

Second year
(CS5098 (60 credits) **or** CS5099 (60 credits)) **and**
ET5402 (20 credits) **and** IS5101 (15 credits) **and**
30 credits from Module List: CS5010 - CS5011 **and**
15 credits from Module List: CS5502, CS5012 **and**
Between 0 and 30 credits from Module List: CS4100 - CS4450 **and**
Between 0 and 30 credits from Module List: IS5102 - IS5150 **and**
Between 0 and 45 Module List: CS5003 - CS5089, ID5059
Further requirements

Students must select 185 credits.

Computer Science - Artificial Intelligence with English - 2017/8 - August 2017

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Planned timetable:	To be arranged.

This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75% Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).
Module coordinator:	Mr J Harvey
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell

ET5401 English for Computer Science 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Planned timetable:	To be arranged.

This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	The student must be a user of English as an Additional Language
Co-requisite(s):	ET5400, CS5001 or CS5002
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.			
Planned timetable:	To be arranged.			
This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.				
Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.			
Pre-requisite(s):	ET5401			
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J Brooks			
Module teaching staff:	Ms J Brooks, Ms M Carr			

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5010 Artificial Intelligence Principles

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module covers foundational knowledge of Artificial Intelligence (AI). The module gives an overview of AI and its philosophy. It covers fundamental principles in AI: logical reasoning, reasoning in the presence of uncertainty, and machine learning. It shows how search is used to solve a variety of problems in AI. Notions such as agency and uncertainty in AI are covered. Finally, the philosophy of AI in practice and the philosophical problems in AI are shown.

Programme module type:	Compulsory for Artificial Intelligence Postgraduate Programme.		
	Optional for all Postgraduate Programmes in the School of Computer Science.		
Anti-requisite(s):	CS3105	**Required for:**	CS5011
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5011 Artificial Intelligence Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module covers practical design and implementation of Artificial Intelligence (AI). It provides grounding in AI technique, covering techniques in the areas of AI reasoning, planning, doing, and learning. Finally, it is shown how to implement AI ideas in software and how to evaluate such implementation.

Programme module type:	Compulsory for Artificial Intelligence Postgraduate Programme. Optional for other Postgraduate Programmes.		
Co-requisite(s):	CS5001, CS5010	**Required for:**	CS5012, CS5019
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

EITHER

CS5012 Language and Computation

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module covers the major aspects of natural language processing and speech understanding, including computational syntax, computational semantics, discourse processing, machine translation and speech recognition.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme. Optional for Postgraduate Programmes in the School of Computer Science.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS4402 Constraint Programming

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces constraint-based reasoning as a powerful mechanism for knowledge representation and inference. It provides a thorough grounding in the constraint satisfaction/constrained optimisation problem formalism, and covers both basic techniques for implementing constraint solvers and the use of advanced techniques with a modern solver.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme. Optional for Erasmus Mundus Dependable Software Systems Postgraduate Programme and other Postgraduate Programmes in the School
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%

EITHER

CS5098 Group Project and Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5099			
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5098			
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science

Computer Communication Systems

Programme Requirements

Computer Communication Systems - MSc
(CS5098 (60 credits) **or** CS5099 (60 credits)) **and** IS5101 (15 credits) **and** CS5001 (15 credits) **and** CS5020 (15 credits) **and** CS5022 (15 credits) **and** (CS4103 (15 credits)) **or** CS5024 (15 credits) **and** Between 0 and 30 credits from Module List: CS4100 - CS4450 **and** Between 0 and 30 credits from Module List: IS5102 - IS5150 **and** Between 0 and 60 credits from Module List: CS5003 - CS5089, ID5059 **Further requirements** Students must select 180 credits. CS5001 is compulsory except when exempted following satisfactory performance in an assessment conducted by the school. **MPhil:** 120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 words

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5020 Principles of Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			

This module aims to equip students with a deep knowledge of fundamental concepts and terminologies of computer communication systems (CCS). It will illustrate fundamental principles with reference to widely-used systems and technologies for CCS and enable students to use high level tools for networked systems configuration, exploration and management of CCS. Students will also be made aware of security and privacy principles and how they are used in CCS.

Programme module type:	Compulsory for MSc in Computer Communication Systems
	Optional for all other taught postgraduate programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 6 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5022 Practice in Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module aims to introduce students to the applications, protocols and architecture of Computer Communication Systems in terms of their practical realisation, operation, control and management. It will enable them to use standard programming languages and tools in order to build communication applications and protocols and to use standard analytical and statistical tools for examining the operation and performance of communication applications, protocols and systems.

Programme module type:	Compulsory for MSc in Computer Communication Systems
	Optional for all other taught postgraduate programmes in the School of Computer Science.
Co-requisite(s):	CS5001 and CS5020
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks), 1 tutorial (x 4 weeks), lab session (x 4 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS4103 Distributed Systems

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2

Planned timetable:	To be arranged.

This module covers the fundamentals of distributed systems, with reference to system models, programming languages, algorithmic techniques, concurrency and correctness.

Programme module type:	Either CS4103 or CS5024 is compulsory for Computer Communication Systems Postgraduate Programme
	Optional for other Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

OR

CS5024 Advanced Topics in Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2

Planned timetable:	TBC

This module reinforces the basic principles and fundamental concepts of computer communication systems (CCS). It will cover, in depth, new developments and emerging topics in CCS and allow students to analyse, evaluate, critique and reproduce results from CCS research papers.

Programme module type:	Either CS4103 or CS5024 is compulsory for Computer Communication Systems Postgraduate Programmes
	Optional for all other taught postgraduate programmes in the School of Computer Science
Pre-requisite(s):	CS5022
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 6 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5098 Group Project and Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5099
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5098
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science

Computer Communication Systems with English Language

Programme Requirements

Computer Communication Systems with English Language - MSc
First semester   40 credits from Module List: ET5400 - ET5401 **and**   CS5001 (15 credits)   **Further requirements**   Students must select 55 credits.
Second year   (CS5098 (60 credits) **or** CS5099 (60 credits)) **and**   ET5402 (20 credits) **and** IS5101 (15 credits) **and**   30 credits from Module List: CS5020, CS5022   15 credits from Module List: CS4103, CS5024   Between 0 and 30 credits from Module List: CS4100 - CS4450   Between 0 and 30 credits from Module List: IS5102 - IS5150 **and**   Between 0 and 45 credits from Module List: CS5003 - CS5089, ID5059   **Further requirements**   Students must select 185 credits.

Computer Science - Computer Communication Systems with English - 2017/8 - August 2017

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.				
Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.			
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.			
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).			
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)			
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75% Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).			
Module coordinator:	Mr J Harvey			
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell			

ET5401 English for Computer Science 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.				
Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.			
Pre-requisite(s):	The student must be a user of English as an Additional Language			
Co-requisite(s):	ET5400, CS5001 or CS5002			
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J Brooks			
Module teaching staff:	Ms J Brooks, Ms M Carr			

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	

Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Planned timetable:	To be arranged.

This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	ET5401
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year	

Planned timetable:	To be arranged.

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5020 Principles of Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			

This module aims to equip students with a deep knowledge of fundamental concepts and terminologies of computer communication systems (CCS). It will illustrate fundamental principles with reference to widely-used systems and technologies for CCS and enable students to use high level tools for networked systems configuration, exploration and management of CCS. Students will also be made aware of security and privacy principles and how they are used in CCS.

Programme module type:	Compulsory for MSc in Computer Communication Systems
	Optional for all other taught postgraduate programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 6 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5022 Practice in Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.				

This module aims to introduce students to the applications, protocols and architecture of Computer Communication Systems in terms of their practical realisation, operation, control and management. It will enable them to use standard programming languages and tools in order to build communication applications and protocols and to use standard analytical and statistical tools for examining the operation and performance of communication applications, protocols and systems.

Programme module type:	Compulsory for MSc in Computer Communication Systems
	Optional for all other taught postgraduate programmes in the School of Computer Science.
Co-requisite(s):	CS5001 and CS5020
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks), 1 tutorial (x 4 weeks), lab session (x 4 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS4103 Distributed Systems

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.				

This module covers the fundamentals of distributed systems, with reference to system models, programming languages, algorithmic techniques, concurrency and correctness.

Programme module type:	Either CS4103 or CS5024 is compulsory for Computer Communication Systems Postgraduate Programme
	Optional for other Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

OR

CS5024 Advanced Topics in Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC				

This module reinforces the basic principles and fundamental concepts of computer communication systems (CCS). It will cover, in depth, new developments and emerging topics in CCS and allow students to analyse, evaluate, critique and reproduce results from CCS research papers.

Programme module type:	Either CS4103 or CS5024 is compulsory for Computer Communication Systems Postgraduate Programmes
	Optional for all other taught postgraduate programmes in the School of Computer Science
Pre-requisite(s):	CS5022
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 6 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5098 Group Project and Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5099			
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5098			
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science Computing and Information Technology

Programme Requirements

Computing and Information Technology - MSc
IS5101 (15 credits) **and**   (CS5001 (15 credits) **or** CS5002 (15 credits)) **and**   CS5003 (15 credits) **and**   Between 0 and 30 credits from Module List: CS4100 - CS4450 **and**   Between 45 and 75 credits from Module List: IS5102 - IS5150, CS5010 - CS5089, ID5059 **and**   60 credits from Module List: IS5198 - IS5199, CS5098 - CS5099   **Further requirements**   Students must select 180 credits.   **MPhil:**   120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 words

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

EITHER

CS5001 Object-Oriented Modelling, Design and Programming				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			
This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.				
Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.			
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme			
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.			
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.			
Anti-requisite(s):	CS5002			
Required for:	CS5011, CS5022, CS5031, CS5052			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5002 Programming Principles and Practice			
SCOTCAT Credits:	15	SCQF Level 11	**Semester:** 1
Planned timetable:	Variable		
This module introduces computational thinking and problem solving skills to students who have no or little previous programming experience. It covers general programming concepts used in the development of software applications, such as data structures, functions, choice, iteration, recursion and input/output. An easy-to-learn programming language is used to illustrate these concepts, and programming skills are reinforced through practical assignments.			
Programme module type:	Either CS5001 or CS5002 is compulsory for Computing and Information Technology and Human Computer Interaction Postgraduate Programmes.		
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.		
Anti-requisite(s):	CS5001	**Required for:**	CS5003
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5003 Masters Programming Projects					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2	
Planned timetable:	Variable				
This module reinforces key programming skills gained in CS5002, by means of a series of coursework assignments posed as small programming projects. These are designed to offer increasing depth and scope for creativity as the module progresses.					
Programme module type:	Compulsory for Computing and Information Technology Postgraduate Programme. Optional for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems, Intensive Analysis, Information Technology, Human Computer Interaction MSc Programmes, EngD in Computer Science				
Pre-requisite(s):	CS5002		**Anti-requisite(s):**	IS5108	
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	dopgt-cs@st-andrews.ac.uk				

One of:

CS5098 Group Project and Dissertation in Computer Science					
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer	
Planned timetable:	To be arranged.				
This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.					
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc				
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School				
Anti-requisite(s):	CS5099				
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	dopgt-cs@st-andrews.ac.uk				

CS5099 Dissertation in Computer Science

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5098
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

IS5198 Group Project and Dissertation in Information Technology

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:				
Planned timetable:	To be arranged.			

This module is a group-based MSc project on an approved topic in Information Technology which shows appropriate competences in the field. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, the development of a software system or skilled use of one or more applications, a critical analysis and evaluation of the project outputs. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either IS5198 or IS5199 is compulsory for the Information Technology MSc. One of: IS5198, IS5199, CS5198, CS5199 is compulsory for the Computing and Information Technology MSc		
Pre-requisite(s):	Admission to dissertation phase of MSc and the consent of the Head of School	**Anti-requisite(s):**	IS5199
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.		
Assessment pattern:	Coursework (Dissertation) = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

IS5199 Dissertation in Information Technology				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:				
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on an approved topic in Information Technology which shows appropriate competences in the field. The project results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, the development of a software system or skilled use of one or more applications, a critical analysis and evaluation of the project outputs. Students are required to give a presentation of their work.

Programme module type:	Either IS5198 or IS5199 is compulsory for the Information Technology MSc. One of: IS5198, IS5199, CS5198, CS5199 is compulsory for the Computing and Information Technology MSc			
Pre-requisite(s):	Admission to dissertation phase of the MSc	**Anti-requisite(s):**	IS5198	
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science Computing and Information Technology with English Language

Programme Requirements

Computing and Information Technology with English Language - MSc
First semester 40 credits from Module List: ET5400 - ET5401 **and** 15 credits from Module List: CS5001 - CS5002 **Further requirements** Students must select 55 credits.
Second year 60 credits from Module List: IS5198 - IS5199, CS5098 - CS5099 **and** ET5402 (20 credits) **and** IS5101 (15 credits) **and** CS5003 (15 credits) **and** Between 0 and 30 credits from Module List: CS4100 - CS4450 **and** Between 45 and 75 credits from Module List: IS5102 - IS5150, CS5010 - CS5089, ID5059 **Further requirements** Students must select 185 credits.

MPhil:

120 credits from Taught Element of Computing and Information Technology plus a 40,000-word thesis

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75% Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).
Module coordinator:	Mr J Harvey
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell

ET5401 English for Computer Science 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	The student must be a user of English as an Additional Language
Co-requisite(s):	ET5400, CS5001 or CS5002
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	

Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Planned timetable:	To be arranged.

This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	ET5401
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year	

Planned timetable:	To be arranged.

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5001 Object-Oriented Modelling, Design and Programming				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			
This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.				
Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.			
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme			
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.			
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.			
Anti-requisite(s):	CS5002			
Required for:	CS5011, CS5022, CS5031, CS5052			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5002 Programming Principles and Practice			
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable		
This module introduces computational thinking and problem solving skills to students who have no or little previous programming experience. It covers general programming concepts used in the development of software applications, such as data structures, functions, choice, iteration, recursion and input/output. An easy-to-learn programming language is used to illustrate these concepts, and programming skills are reinforced through practical assignments.			
Programme module type:	Either CS5001 or CS5002 is compulsory for Computing and Information Technology and Human Computer Interaction Postgraduate Programmes.		
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.		
Anti-requisite(s):	CS5001	**Required for:**	CS5003
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5003 Masters Programming Projects

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	Variable			

This module reinforces key programming skills gained in CS5002, by means of a series of coursework assignments posed as small programming projects. These are designed to offer increasing depth and scope for creativity as the module progresses.

Programme module type:	Compulsory for Computing and Information Technology Postgraduate Programme.
	Optional for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems, Intensive Analysis, Information Technology, Human Computer Interaction MSc Programmes, DEng in Computer Science

Pre-requisite(s):	CS5002	**Anti-requisite(s):**	IS5108
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

One of:

CS5098 Group Project and Dissertation in Computer Science

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5099
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5099 Dissertation in Computer Science

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5098
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

IS5198 Group Project and Dissertation in Information Technology

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:				
Planned timetable:	To be arranged.			

This module is a group-based MSc project on an approved topic in Information Technology which shows appropriate competences in the field. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, the development of a software system or skilled use of one or more applications, a critical analysis and evaluation of the project outputs. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either IS5198 or IS5199 is compulsory for the Information Technology MSc. One of: IS5198, IS5199, CS5198, CS5199 is compulsory for the Computing and Information Technology MSc		
Pre-requisite(s):	Admission to dissertation phase of MSc and the consent of the Head of School	**Anti-requisite(s):**	IS5199
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.		
Assessment pattern:	Coursework (Dissertation) = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

IS5199 Dissertation in Information Technology				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:				
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on an approved topic in Information Technology which shows appropriate competences in the field. The project results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, the development of a software system or skilled use of one or more applications, a critical analysis and evaluation of the project outputs. Students are required to give a presentation of their work.

Programme module type:	Either IS5198 or IS5199 is compulsory for the Information Technology MSc. One of: IS5198, IS5199, CS5198, CS5199 is compulsory for the Computing and Information Technology MSc			
Pre-requisite(s):	Admission to dissertation phase of the MSc	**Anti-requisite(s):**	IS5198	
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science Data-Intensive Analysis

Programme Requirements

Data-Intensive Analysis - MSc
MT4113 (15 credits) **and** MT5753 (20 credits) **and** MT5756 (20 credits) **and** MT5757 (20 credits) **and** ID5059 (15 credits) **and** Between 0 and 30 credits from Module List: CS5001 - CS5003, CS5044, CS5052 **and** CS5099 (60 credits) **or** MT5099 (60 credits) Further requirements Students must select 180 credits.

Compulsory modules:

MT4113 Computing in Statistics				
SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	12.00 noon Mon (odd weeks) and Wed, 12.00 noon –2.00 pm Fri			
The aim of this module is to teach computer programming skills, including principles of good programming practice, with an emphasis on statistical computing. Practical work focusses on the widely-used statistical language and environment R. Practical skills are developed through a series of computing exercises that include (1) modular programming; (2) manipulating data; (3) simulating data with specific statistical properties, (4) investigating behaviour of statistical procedures under failure of statistical assumptions.				
Programme module type:	Compulsory for Applied Statistics and Datamining and Data-Intensive Analysis MSc programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour lectures (x 10 weeks), 2-hour pracitcal classes (x 10 weeks)			
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	Dr L J Thomas			
Module teaching staff:	Dr L J Thomas, Dr E Rexstad			

MT5753 Statistical Modelling

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm - 5.00 pm Mon - Thu and 2.00 pm - 3.00 pm Fri (Weeks 5 - 9)			

This applied statistics module covers the main aspects of linear models (LMs) and generalized linear models (GLMs). In each case the course describes model specification, various options for model selection, model assessment and tools for diagnosing model faults. Common modelling issues such as collinearity and residual correlation are also addressed, and as a consequence of the latter the Generalized Least squares (GLS) method is described. The GLM component has emphasis on models for count data and presence/absence data while GLMs for multinomial (sometimes called choice-based models) are also covered for nominal and ordinal response outcomes. The largest part of the course material is taught inside an environmental impact assessment case study with reality-based research objectives. Political and medical examples are used to illustrate the multinomial models.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc programme. Optional for Statistics MSc Programme.		
Anti-requisite(s):	MT4607	Required for:	MT5757
Learning and teaching methods and delivery:	**Weekly contact**: 6 hours lectures, 1.5 hours tutorials and 6 hours practicals (x 5 weeks).		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Ms H Worthington		
Module teaching staff:	Dr H Worthington, Dr L Scott-Hayward		

MT5756 Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm			

This module provides coverage of essential statistical concepts, data manipulation and analysis methods, and software skills in commercial analysis packages. Specifically: the different types of data and their numerical/graphical treatment; data entry/import/export, basic probability theory and concepts of inference; fundamental statistical concepts with particular emphasis on sampling issues; basic statistical models and tests; introductory computer-intensive inference. The widespread commercial statistical packages SAS, SPSS are introduced and utilised with Excel for most analyses. The statistical programming language R is also given brief attention. This module is a short intensive course and is a core, preliminary, requirement for the MSc in Applied Statistics and Datamining. It covers material essential for study of the more advanced statistical methods encountered in subsequent modules.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. An exemption may be granted to an appropriately qualified entrant. Compulsory for Data-Intensive Analysis MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practicals for 4 weeks.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%

MT5757 Advanced Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

This module covers modern modelling methods for situations where the data fails to meet the assumptions of common statistical models and simple remedies do not suffice. This represents a lot of real world data. Methods covered include: nonlinear models; basic splines and Generalised Additive Models; LASSO and the Elastic Net; models for non-independent errors and random effects. Pragmatic data imputation is covered with associated issues. Computer intensive inference is considered throughout. Practical applications build sought-after skills in R and the commercial packages SAS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc Programme. Optional for Statistics MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 8 tutorials over the semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr L Scott-Hayward
Module teaching staff:	Dr L Scott-Hayward

ID5059 Knowledge Discovery and Datamining

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

Contemporary data collection can be automated and on a massive scale e.g. credit card transaction databases. Large databases potentially carry a wealth of important information that could inform business strategy, identify criminal activities, characterise network faults etc. These large scale problems may preclude the standard carefully constructed statistical models, necessitating highly automated approaches. This module covers many of the methods found under the banner of "Datamining", building from a theoretical perspective but ultimately teaching practical application. Topics covered include: historical/philosophical perspectives, model selection algorithms and optimality measures, tree methods, bagging and boosting, neural nets, and classification in general. Practical applications build sought-after skills in programming (typically R, SAS or python).

Programme module type:	Compulsory for Applied Statistics and Datamining Postgraduate Programme. Compulsory for Data-Intensive Analysis MSc Programme. Optional for all Postgraduate Programmes.
Anti-requisite(s):	MT5759
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	masters-coord-cs@st-andrews.ac.uk

Either:

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5098			
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

MT5099 Dissertation for MSc Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the progress of the dissertation. The completed dissertation of not more than 15,000 words must be submitted by the 21st of August.				
Programme module type:	Compulsory for MSc Programmes in Mathematics and in Statistics. Optional for Data-Intensive Analysis MSc Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Dr J D Mitchell			

Optional modules:

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5002 Programming Principles and Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces computational thinking and problem solving skills to students who have no or little previous programming experience. It covers general programming concepts used in the development of software applications, such as data structures, functions, choice, iteration, recursion and input/output. An easy-to-learn programming language is used to illustrate these concepts, and programming skills are reinforced through practical assignments.

Programme module type:	Either CS5001 or CS5002 is compulsory for Computing and Information Technology and Human Computer Interaction Postgraduate Programmes.		
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.		
Anti-requisite(s):	CS5001	**Required for:**	CS5003
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5003 Masters Programming Projects

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	Variable			

This module reinforces key programming skills gained in CS5002, by means of a series of coursework assignments posed as small programming projects. These are designed to offer increasing depth and scope for creativity as the module progresses.

Programme module type:	Compulsory for Computing and Information Technology Postgraduate Programme.
	Optional for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems, Intensive Analysis, Information Technology, Human Computer Interaction MSc Programmes, EngD in Computer Science

Pre-requisite(s):	CS5002	**Anti-requisite(s):**	IS5108
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5044 Information Visualisation and Visual Analytics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides an introduction to information visualisation and visual analytics. It focuses on the question of how to utilise visual representations to make information accessible for exploration and analysis. The module covers basic principles of visualisation design and interaction principles. It introduces a range of visualisation techniques and tools, and discusses how these can be effectively applied in various scenarios for communication, exploration and analysis, and how to evaluate information visualisations in different contexts.

Skills in designing, developing, and evaluating information visualisations are reinforced through practical assignments. There are no pre-requisites for this module but students should have basic programming skills (e.g. in Java or JavaScript).

Programme module type:	Either CS5041 or CS5044 is compulsory for Human Computer Interaction Postgraduate Programmes
	Optional for all Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour lecture (x 11 weeks), 1-hour seminar (x 8 weeks)
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5052 Data-Intensive Systems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

The era of big data is upon us - the volume, velocity and variety of enterprise and scientific data are growing at an exponential rate and will continue to do so for the foreseeable future. This module presents the programming paradigms, algorithmic techniques and design principles for large-scale distributed systems, such as those utilised by companies such as Google, Amazon and Facebook. This module is different in scope from CS4103 (distributed systems) as it focuses primarily on building and utilising large-scale clusters. The module will cover: distributed systems architecture, replication and fault tolerance, storage, coordination, scheduling algorithms, cluster computing, cloud computing, virtualisation, programming models (e.g., MapReduce), stream processing, decentralised systems (e.g., Chord), incentive-based systems (e.g., BitTorrent), and social computing (e.g., crowd sourcing techniques). This module will draw from the latest research in both academia and industry.

Programme module type:	Optional for Data-Intensive Analysis MSc Programme.
	Optional for Computer Communication Systems MSc and all other Postgraduate programmes within the School.
Pre-requisite(s):	CS5001
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Master of Science Human Computer Interaction

Programme Requirements

Human Computer Interaction - MSc
IS5101 (15 credits) **and** (CS5001 (15 credits) **or** CS5002 (15 credits)) **and** CS5040 (15 credits) **and** CS5042 (15 credits) **and** (CS5041 (15 credits) **or** CS5044 (15 credits)) **and** Between 0 and 30 credits from Module List: CS4100 - CS4450 **and** Between 15 and 45 credits from Module List: IS5102 - IS5150, CS5003 - CS5089, ID5059 **and** (CS5098 (60 credits) **or** CS5099 (60 credits)) **Further requirements** Students must select 180 credits. **MPhil:** 120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 words

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

EITHER

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5002 Programming Principles and Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces computational thinking and problem solving skills to students who have no or little previous programming experience. It covers general programming concepts used in the development of software applications, such as data structures, functions, choice, iteration, recursion and input/output. An easy-to-learn programming language is used to illustrate these concepts, and programming skills are reinforced through practical assignments.

Programme module type:	Either CS5001 or CS5002 is compulsory for Computing and Information Technology and Human Computer Interaction Postgraduate Programmes.		
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.		
Anti-requisite(s):	CS5001	**Required for:**	CS5003
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5040 Human Computer Interaction Principles and Methods

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module provides a grounded introduction to the principles of human computer interaction in the context of evaluation paradigms. Material includes: history of interfaces and interaction; the human (vision, perception, memory, hearing); the computer (from existing to next generation ubiquitous computing systems); paradigms of interaction; evaluation paradigms in HCI; guidelines and heuristics; experimental design and hypothesis testing in HCI; quantitative evaluation methods in HCI; qualitative evaluation methods in HCI.

Programme module type:	Compulsory for MSc Human Computer Interaction Postgraduate Programme. Optional for other Postgraduate Programmes
Anti-requisite(s):	CS3106
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, practical classes and tutorials.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5042 User-Centred Interaction Design

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2

Availability restrictions:	The module is available to all students enrolled on the MSc Human Computer Interaction Programme. A quota for other students may be necessary due to lab equipment constraints, in which case preference will be given to other MSc students.
Planned timetable:	To be arranged.

This module studies methodologies in interaction design that are at the core of current practice for user interface engineering and application development. Students work towards creating designs of interactive systems that are based on human, group and organisation needs rather than on technical constraints. The module does not involve a great deal of programming.

Programme module type:	Compulsory for MSc Human Computer Interaction Postgraduate Programme Optional for all Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 3 practicals and 1 tutorial.
Assessment pattern:	Coursework = 85%, Presentation = 15%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5041 Interactive Software and Hardware				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Availability restrictions:	The module is available to all students enrolled on the MSc Human Computer Interaction Programme. A quota for other students may be necessary due to lab equipment constraints, in which case preference will be given to other MSc students.			
Planned timetable:	To be arranged.			
This module develops prototype-building skills for a wide range of interactive technologies. Students learn how to create interactive hardware and software using technologies such as tangible programming kits, mobile devices, microprocessor kits and depth cameras. There is a strong emphasis on practical assignments.				
Programme module type:	Either CS5041 or CS5044 is compulsory for Human Computer Interaction Postgraduate Programmes Optional for other Postgraduate Programmes			
Co-requisite(s):	CS5001			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, practical classes and tutorials.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5044 Information Visualisation and Visual Analytics				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module provides an introduction to information visualisation and visual analytics. It focuses on the question of how to utilise visual representations to make information accessible for exploration and analysis. The module covers basic principles of visualisation design and interaction principles. It introduces a range of visualisation techniques and tools, and discusses how these can be effectively applied in various scenarios for communication, exploration and analysis, and how to evaluate information visualisations in different contexts. Skills in designing, developing, and evaluating information visualisations are reinforced through practical assignments. There are no pre-requisites for this module but students should have basic programming skills (e.g. in Java or JavaScript).				
Programme module type:	Either CS5041 or CS5044 is compulsory for Human Computer Interaction Postgraduate Programmes Optional for all Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour lecture (x 11 weeks), 1-hour seminar (x 8 weeks)			
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

EITHER

CS5098 Group Project and Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5099			
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5098			
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

For optional modules available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science Human Computer Interaction

with English Language

Programme Requirements

Human Computer Interaction with English Language - MSc
First semester 40 credits from Module List: ET5400 - ET5401 **and** 15 credits from Module List: CS5001 - CS5002 **Further requirements** Students must select 55 credits.
Second year (CS5098 (60 credits) **or** CS5099 (60 credits)) **and** ET5402 (20 credits) **and** IS5101 (15 credits) **and** 30 credits from Module List CS5040, CS5042 **and** 15 credits from CS5041, CS5044 **and** Between 0 and 30 credits from Module List: CS4100 - CS4450 **and** Between 15 and 45 credits from Module List: IS5102 - IS5150, CS5003 - CS5089, ID5059 **Further requirements** Students must select 185 credits.

MPhil:

120 credits from Taught Element plus a 40,000-word thesis

Computer Science - Human Computer Interaction with English - 2017/8 - August 2017

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75% Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).
Module coordinator:	Mr J Harvey
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell

ET5401 English for Computer Science 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	The student must be a user of English as an Additional Language
Co-requisite(s):	ET5400, CS5001 or CS5002
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	

Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Planned timetable:	To be arranged.

This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	ET5401
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year	

Planned timetable:	To be arranged.

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5002 Programming Principles and Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces computational thinking and problem solving skills to students who have no or little previous programming experience. It covers general programming concepts used in the development of software applications, such as data structures, functions, choice, iteration, recursion and input/output. An easy-to-learn programming language is used to illustrate these concepts, and programming skills are reinforced through practical assignments.

Programme module type:	Either CS5001 or CS5002 is compulsory for Computing and Information Technology and Human Computer Interaction Postgraduate Programmes.		
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.		
Anti-requisite(s):	CS5001	**Required for:**	CS5003
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5040 Human Computer Interaction Principles and Methods

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged.

This module provides a grounded introduction to the principles of human computer interaction in the context of evaluation paradigms. Material includes: history of interfaces and interaction; the human (vision, perception, memory, hearing); the computer (from existing to next generation ubiquitous computing systems); paradigms of interaction; evaluation paradigms in HCI; guidelines and heuristics; experimental design and hypothesis testing in HCI; quantitative evaluation methods in HCI; qualitative evaluation methods in HCI.

Programme module type:	Compulsory for MSc Human Computer Interaction Postgraduate Programme. Optional for other Postgraduate Programmes
Anti-requisite(s):	CS3106
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, practical classes and tutorials.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5042 User-Centred Interaction Design

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

Availability restrictions:	The module is available to all students enrolled on the MSc Human Computer Interaction Programme. A quota for other students may be necessary due to lab equipment constraints, in which case preference will be given to other MSc students.
Planned timetable:	To be arranged.

This module studies methodologies in interaction design that are at the core of current practice for user interface engineering and application development. Students work towards creating designs of interactive systems that are based on human, group and organisation needs rather than on technical constraints. The module does not involve a great deal of programming.

Programme module type:	Compulsory for MSc Human Computer Interaction Postgraduate Programme Optional for all Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 3 practicals and 1 tutorial.
Assessment pattern:	Coursework = 85%, Presentation = 15%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5041 Interactive Software and Hardware				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Availability restrictions:	The module is available to all students enrolled on the MSc Human Computer Interaction Programme. A quota for other students may be necessary due to lab equipment constraints, in which case preference will be given to other MSc students.			
Planned timetable:	To be arranged.			
This module develops prototype-building skills for a wide range of interactive technologies. Students learn how to create interactive hardware and software using technologies such as tangible programming kits, mobile devices, microprocessor kits and depth cameras. There is a strong emphasis on practical assignments.				
Programme module type:	Either CS5041 or CS5044 is compulsory for Human Computer Interaction Postgraduate Programmes Optional for other Postgraduate Programmes			
Co-requisite(s):	CS5001			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, practical classes and tutorials.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5044 Information Visualisation and Visual Analytics				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module provides an introduction to information visualisation and visual analytics. It focuses on the question of how to utilise visual representations to make information accessible for exploration and analysis. The module covers basic principles of visualisation design and interaction principles. It introduces a range of visualisation techniques and tools, and discusses how these can be effectively applied in various scenarios for communication, exploration and analysis, and how to evaluate information visualisations in different contexts.				
Skills in designing, developing, and evaluating information visualisations are reinforced through practical assignments. There are no pre-requisites for this module but students should have basic programming skills (e.g. in Java or JavaScript).				
Programme module type:	Either CS5041 or CS5044 is compulsory for Human Computer Interaction Postgraduate Programmes Optional for all Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour lecture (x 11 weeks), 1-hour seminar (x 8 weeks)			
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

EITHER

CS5098 Group Project and Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5099
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.

Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School
Anti-requisite(s):	CS5098
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

For optional modules available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science Information Technology

Programme Requirements

Information Technology - MSc
(IS5198 (60 credits) **or** IS5199 (60 credits)) **and** IS5101 (15 credits) **and** 105 credits from Module List: IS5102 - IS5150, CS5001 - CS5089, ID5059 **Further requirements** Students must select 180 credits. **MPhil:** 120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 words

Compulsory module:

IS5101 Masters Core Skills					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**		Whole Year
Planned timetable:	To be arranged.				
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.					
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.				
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	dopgt-cs@st-andrews.ac.uk				

EITHER

IS5188 Group Project and Dissertation in Management and Information Technology				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available only to students on the Management and Informatin Technology Postgraduate Programme.			
Planned timetable:	To be arranged.			
This module is a group-based MSc project on an approved topic in Management and Information Technology which shows appropriate competences in both fields. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, an account of how Information Technology was used in the project, critical analyses and evaluation of the findings. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.				
Programme module type:	Either IS5188 or IS5189 is compulsory for Management and Information Technology MSc Postgraduate Programme.			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School	**Anti-requisite(s):**		IS5189
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

IS5189 Dissertation in Management and Information Technology				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available only to students on the Management and Informatin Technology Postgraduate Programme.			
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on an approved topic in Management and Information Technology which shows appropriate competences in both fields. The project results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, an account of how Information Technology was used in the project, critical analyses and evaluation of the findings. Students are required to give a presentation of their work.				
Programme module type:	Either IS5188 or IS5189 is compulsory for Management and Information Technology MSc Postgraduate Programme.			
Pre-requisite(s):	Admission to dissertation phase of MSc and the consent of the Head of School	**Anti-requisite(s):**		IS5188
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

For details of the optional modules available - see the pdf online called 'PG Computer Science - optional modules 2017/8.

Master of Science Information Technology with English Language

Programme Requirements

Information Technology with English Language - MSc

First semester
40 credits from Module List: ET5400 - ET5401 **and**
15 credits from Module List: CS5001 - CS5002

Further requirements

Students must select 55 credits.

Second year
(IS5198 (60 credits) or IS5199 (60 credits)) **and**
ET5402 (20 credits) **and** IS5101 (15 credits) **and**
90 credits from Module List: IS5102 - IS5150, CS5003 - CS5089, ID5059

Further requirements

Students must select 185 credits.

Computer Science - Information Technology with English - 2017/8 - August 2017

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.				
Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.			
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.			
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).			
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)			
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75% Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).			
Module coordinator:	Mr J Harvey			
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell			

ET5401 English for Computer Science 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.				
Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.			
Pre-requisite(s):	The student must be a user of English as an Additional Language			
Co-requisite(s):	ET5400, CS5001 or CS5002			
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J Brooks			
Module teaching staff:	Ms J Brooks, Ms M Carr			

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.			
Planned timetable:	To be arranged.			

This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	ET5401
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Computer Science - Information Technology with English - 2017/8 - August 2017

EITHER

IS5198 Group Project and Dissertation in Information Technology

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:				
Planned timetable:	To be arranged.			

This module is a group-based MSc project on an approved topic in Information Technology which shows appropriate competences in the field. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, the development of a software system or skilled use of one or more applications, a critical analysis and evaluation of the project outputs. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either IS5198 or IS5199 is compulsory for the Information Technology MSc.		
	One of: IS5198, IS5199, CS5198, CS5199 is compulsory for the Computing and Information Technology MSc		
Pre-requisite(s):	Admission to dissertation phase of MSc and the consent of the Head of School	**Anti-requisite(s):**	IS5199
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.		
Assessment pattern:	Coursework (Dissertation) = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

OR

IS5199 Dissertation in Information Technology

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:				
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on an approved topic in Information Technology which shows appropriate competences in the field. The project results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, the development of a software system or skilled use of one or more applications, a critical analysis and evaluation of the project outputs. Students are required to give a presentation of their work.

Programme module type:	Either IS5198 or IS5199 is compulsory for the Information Technology MSc.		
	One of: IS5198, IS5199, CS5198, CS5199 is compulsory for the Computing and Information Technology MSc		
Pre-requisite(s):	Admission to dissertation phase of the MSc	**Anti-requisite(s):**	IS5198
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor		
Assessment pattern:	Coursework (Dissertation) = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

For details of the optional modules available - see the pdf online called Computer Science - optional modules 2017/8.

Masters in Software Engineering

Programme Requirements

Software Engineering - MSc
IS5101 (15 credits) **and** CS5001 (15 credits) **and** CS5030 (15 credits) **and** CS5031 (15 credits) **and** (CS5032 (15 credits) **or** CS5033 (15 credits)) **and** Between 0 and 30 credits from Module List: CS4100 - CS4450 **and** Between 0 and 30 credits from Module List: IS5102 - IS5150 **and** Between 0 and 60 credits from Module List: CS5003 - CS5089, ID5059 **and** (CS5098 (60 credits) **or** CS5099 (60 credits)) **Further requirements** Students must select 180 credits. CS5001 is compulsory except when exempted following satisfactory performance in an assessment conducted by the school. **MPhil:** 120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 words

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5030 Software Engineering Principles

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module examines the key concepts in small and large-scale software development. Project management is explored, along with the processes involved in developing system requirements, functionality and high-level descriptions necessary to guide the development of, and assess, a working system.

Programme module type:	Compulsory for Software Engineering Postgraduate Programme. Optional for other Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5031 Software Engineering Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces advanced software engineering methods supporting the development of complex, composite software systems with an emphasis on software configuration management, reuse and test-driven development practices. It examines software reuse at different levels of scale, from software libraries and components to service-oriented architectures and discusses how reuse presents both challenges and opportunities for the development of quality software. A key process in today's software engineering practice is testing; the module introduces testing methods that complement the different scales of reuse-oriented development, from unit-level testing to integration testing and system-level testing. Students work on a project to design, implement and test a complex, distributed application to put the content of the lectures into practice. Reference is made to the content of the co-requisite Software Engineering Principles module where appropriate, so that students learn how the practices studied fit into a larger software engineering lifecycle.

Programme module type:	Compulsory for Software Engineering Postgraduate Programme. Optional for other Postgraduate Programmes.		
Co-requisite(s):	CS5001, CS5030, CS5033	**Required for:**	CS5032, CS5039
Learning and teaching methods and delivery:	**Weekly contact**: Weekly lectures, seminars, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

EITHER

CS5032 Critical Systems Engineering

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The aim of this module is to provide students with an understanding of the concepts and development techniques used for critical, socio-technical systems. When students have completed this module they will: understand the notion of system dependability and the key characteristics of dependable systems; understand the specialised software engineering techniques that may be used to ensure dependable system operation; have practical experience of applying some of these techniques in systems specification, design or implementation.

Programme module type:	CS5032 or CS5033 is compulsory for Software Engineering Postgraduate Programme Optional for all other Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: Weekly lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5033 Software Architecture					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**		2
Planned timetable:	To be arranged.				
This module introduces students to the concept of software architecture, as an aid to software design, reuse and evolution. When students have completed this module, they will: have knowledge of the key elements of software architectures; recognise architectural styles of existing software systems; be able to describe the software architecture of a non-trivial system accurately; be able to construct systems that satisfy an architectural description; understand how software architecture aids design, reuse and evolution of software.					
Programme module type:	CS5032 or CS5033 is compulsory for Software Engineering Postgraduate Programme Optional for all other Postgraduate Programmes in the School of Computer Science				
Co-requisite(s):	CS5031				
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.				
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%				
Module coordinator:	dopgt-cs@st-andrews.ac.uk				

EITHER

CS5098 Group Project and Dissertation in Computer Science					
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**		Summer
Planned timetable:	To be arranged.				
This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.					
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc				
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School				
Anti-requisite(s):	CS5099				
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	dopgt-cs@st-andrews.ac.uk				

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5098			
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Master of Science

Software Engineering with English Language

Programme Requirements

Software with English Language - MSc

> **First semester**
> 40 credits from Module List: ET5400 - ET5401 **and**
> CS5001 (15 credits)
>
> **Further requirements**
>
> Students must select 55 credits.

> **Second year**
> (CS5098 (60 credits) or CS5099 (60 credits)) **and**
> ET5402 (20 credits) **and** IS5101 (15 credits) **and**
> 30 credits from Module List: CS5030 - CS5031 **and**
> 15 credits from Module List CS5032 - CS5033 **and**
> 90 credits from Module List: IS5102 - IS5150, CS5003 - CS5089, ID5059
> Between 0 and 30 credits from Module List: CS4100 - CS4450 **and**
> Between 0 and 30 credits from Module List: IS5102 - IS5150 **and**
> Between 0 and 45 credits from Module List: CS5003 - CS5089, ID5059
>
> **Further requirements**
>
> Students must select 185 credits.

Computer Science - Software Engineering with English - 2017/8 - January 2018

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75%
	Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).
Module coordinator:	Mr J Harvey
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell

ET5401 English for Computer Science 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	The student must be a user of English as an Additional Language
Co-requisite(s):	ET5400, CS5001 or CS5002
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.			
Planned timetable:	To be arranged.			

This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	ET5401
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5030 Software Engineering Principles

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module examines the key concepts in small and large-scale software development. Project management is explored, along with the processes involved in developing system requirements, functionality and high-level descriptions necessary to guide the development of, and assess, a working system.

Programme module type:	Compulsory for Software Engineering Postgraduate Programme. Optional for other Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5031 Software Engineering Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces advanced software engineering methods supporting the development of complex, composite software systems with an emphasis on software configuration management, reuse and test-driven development practices. It examines software reuse at different levels of scale, from software libraries and components to service-oriented architectures and discusses how reuse presents both challenges and opportunities for the development of quality software. A key process in today's software engineering practice is testing; the module introduces testing methods that complement the different scales of reuse-oriented development, from unit-level testing to integration testing and system-level testing. Students work on a project to design, implement and test a complex, distributed application to put the content of the lectures into practice. Reference is made to the content of the co-requisite Software Engineering Principles module where appropriate, so that students learn how the practices studied fit into a larger software engineering lifecycle.

Programme module type:	Compulsory for Software Engineering Postgraduate Programme. Optional for other Postgraduate Programmes.
Co-requisite(s):	CS5001, CS5030, CS5033 **Required for:** CS5032, CS5039
Learning and teaching methods and delivery:	**Weekly contact**: Weekly lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

CS5032 Critical Systems Engineering

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The aim of this module is to provide students with an understanding of the concepts and development techniques used for critical, socio-technical systems. When students have completed this module they will: understand the notion of system dependability and the key characteristics of dependable systems; understand the specialised software engineering techniques that may be used to ensure dependable system operation; have practical experience of applying some of these techniques in systems specification, design or implementation.

Programme module type:	CS5032 or CS5033 is compulsory for Software Engineering Postgraduate Programme Optional for all other Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: Weekly lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

OR

CS5033 Software Architecture				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module introduces students to the concept of software architecture, as an aid to software design, reuse and evolution. When students have completed this module, they will: have knowledge of the key elements of software architectures; recognise architectural styles of existing software systems; be able to describe the software architecture of a non-trivial system accurately; be able to construct systems that satisfy an architectural description; understand how software architecture aids design, reuse and evolution of software.				
Programme module type:	CS5032 or CS5033 is compulsory for Software Engineering Postgraduate Programme Optional for all other Postgraduate Programmes in the School of Computer Science			
Co-requisite(s):	CS5031			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

EITHER

CS5098 Group Project and Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is a group-based MSc project on a topic in Computer Science. It results in an individual dissertation of no more than 15,000 words submitted by each student. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5099			
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

CS5099 Dissertation in Computer Science				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on a topic in Computer Science. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, software implementation and testing, analyses and evaluation. Students are required to give a presentation of their work.				
Programme module type:	Either CS5099 or CS5098 is compulsory for the Advanced Computer Science, Artificial Intelligence, Data-Intensive Analysis, Human Computer Interaction, Computer Communication Systems and Software Engineering MSc			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School			
Anti-requisite(s):	CS5098			
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Optional modules are available - see the pdf online called Computer Science - optional modules 2017 - 2018.

Dependable Software Systems - European MSc

Programme Requirements

European MSc Dependable Software Systems (collaborative) - European MSc
CS5001 (15 credits) **and** CS5899 (45 credits) **and** Between 15 and 30 credits from Module List: CS5010, CS5030 and Between 0 and 30 credits from Module List: CS4052, CS4402 and Between 0 and 45 credits from Module List: IS5101 - IS5150, CS5003 - CS5089, ID5059 and **Further requirements** Choose 120 credits in academic year CS5001 is compulsory unless an equivalent module has been taken at a partner institution as part of the DESEM programme. Between 30 and 45 credits must be taken from the Module Lists. **Please balance your choices across the academic year.**

Compulsory modules:

CS5001 Object-Oriented Modelling, Design and Programming				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			
This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.				
Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.			
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme			
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.			
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.			
Anti-requisite(s):	CS5002			
Required for:	CS5011, CS5022, CS5031, CS5052			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5899 Erasmus Mundus Dissertation in Dependable Software Systems

SCOTCAT Credits:	45	SCQF Level 11	**Semester:**	Whole Year
Academic year:	2015/6 & 2016/7			
Availability restrictions:	Available only to students on Erasmus Mundus MSc in Dependable Software Systems.			
Planned timetable:	To be arranged.			

This module is an individually supervised dissertation, not exceeding 15,000 words, on a topic in computer science. Typically it comprises a literature review, extension of old or development of new ideas, their implementation and testing, summarised in a report, with the implementation based on sound theory and software engineering principles. Students will be required to give an assessed presentation of their work.

Programme module type:	Compulsory for Erasmus Mundus in Dependable Software Systems MSc Postgraduate Programme at St Andrews.
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module Co-ordinator:	masters-coord-cs@st-andrews.ac.uk

CS5899 Dissertation in Dependable Software Systems

SCOTCAT Credits:	45	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to students on European Masters in Dependable Software Systems.			
Planned timetable:	To be arranged.			

This module is an individually supervised dissertation, not exceeding 15,000 words, on a topic in computer science. Typically it comprises a literature review, extension of old or development of new ideas, their implementation and testing, summarised in a report, with the implementation based on sound theory and software engineering principles. Students will be required to give an assessed presentation of their work.

Programme module type:	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme at St Andrews.
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

One or two from:

CS5010 Artificial Intelligence Principles

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module covers foundational knowledge of Artificial Intelligence (AI). The module gives an overview of AI and its philosophy. It covers fundamental principles in AI: logical reasoning, reasoning in the presence of uncertainty, and machine learning. It shows how search is used to solve a variety of problems in AI. Notions such as agency and uncertainty in AI are covered. Finally, the philosophy of AI in practice and the philosophical problems in AI are shown.

Programme module type:	Compulsory for Artificial Intelligence Postgraduate Programme. Optional for all Postgraduate Programmes in the School of Computer Science.		
Anti-requisite(s):	CS3105	**Required for:**	CS5011
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.		
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5030 Software Engineering Principles

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module examines the key concepts in small and large-scale software development. Project management is explored, along with the processes involved in developing system requirements, functionality and high-level descriptions necessary to guide the development of, and assess, a working system.

Programme module type:	Compulsory for Software Engineering Postgraduate Programme. Optional for other Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5021 Advanced Networks

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module looks forward to new concepts and topics in networking, and also reviews key abstractions including layered models, protocols and Internet architecture, and key concerns such as reliability, resource utilization and quality of service. Specific networking technologies are used to demonstrate monitoring, measurement and analysis of real traffic.

Programme module type:	Compulsory for Networks and Distributed Systems Postgraduate Programme. Optional for other Postgraduate Programmes.		
Pre-requisite(s):	-	**Anti-requisite(s):**	CS3102
Co-requisite(s):	CS5001	**Required for:**	CS5023, CS5029

One or both (depending on experience):

CS4052 Logic and Software Verification

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

Building on earlier coverage of elementary logic, this module motivates the need for formal methods and software verification approaches as model checking for guaranteeing the correctness of software systems. The module covers modelling, system property specification using temporal logics, and more applied approaches to software specification and verification through the use of model checkers. Model checkers such as SPIN and UPPAAL are used both in lectures and in practical work. Petri nets and program semantics are also explored. Software correctness is thus presented as a matter not of testing but of pre-execution verification through model checking.

Programme module type:	Optional for Dependable Software Systems Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4402 Constraint Programming

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces constraint-based reasoning as a powerful mechanism for knowledge representation and inference. It provides a thorough grounding in the constraint satisfaction/constrained optimisation problem formalism, and covers both basic techniques for implementing constraint solvers and the use of advanced techniques with a modern solver.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme.
	Optional for Erasmus Mundus Dependable Software Systems Postgraduate Programme and other Postgraduate Programmes in the School
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

Optional modules:

CS5003 Masters Programming Projects				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	Variable			
This module reinforces key programming skills gained in CS5002, by means of a series of coursework assignments posed as small programming projects. These are designed to offer increasing depth and scope for creativity as the module progresses.				
Programme module type:	Compulsory for Computing and Information Technology Postgraduate Programme. Optional for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems, Intensive Analysis, Information Technology, Human Computer Interaction MSc Programmes, EngD in Computer Science			
Pre-requisite(s):	CS5002		**Anti-requisite(s):**	IS5108
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Further optional modules are available - see the pdf online called Computer Science - optional modules 2017/8.

EngD in Computer Science

Programme Requirements

Computer Science - EngD
IS5101 (15 credits) **and** CS5001 (15 credits) **and** 30 credits from Module List: CS4100 - CS4450 **and** remaining credits from IS5102 - IS5150, CS5003 - CS5089, CS5201, ID5059, MT4113, MT5756, MT5753, MT5757, MN5424, MN5461, MN5470, MN5471 At least 45 credits must be gained during the first two semesters of study. Plus a doctoral thesis

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5001 Object-Oriented Modelling, Design and Programming

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	Variable			

This module introduces and revises object-oriented modelling, design and implementation up to the level required to complete programming assignments within other MSc modules. Students complete a number of practical exercises in laboratory sessions.

Programme module type:	Compulsory for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems and Software Engineering Postgraduate Programmes, except when exempted following satisfactory performance in an assessment conducted by the school.
	Compulsory for European Masters in Dependable Software Systems Postgraduate Programme
	Either CS5001 or CS5002 is compulsory for Human Computer Interaction and Computing and Information Technology Postgraduate Programmes.
	Optional for Data-Intensive Analysis, Information Technology and Management and Information Technology Postgraduate Programmes.
Anti-requisite(s):	CS5002
Required for:	CS5011, CS5022, CS5031, CS5052
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Up to two from:

CS4102 Computer Graphics

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module covers the fundamental concepts of computer graphics, and develops the ability to apply the concepts to the generation of realistic, synthetic images of 3D objects and scenes. On completion of the module, students should be competent to undertake many tasks in computer graphics, and should have an understanding of the theory underlying many of the relevant techniques.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4103 Distributed Systems

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module covers the fundamentals of distributed systems, with reference to system models, programming languages, algorithmic techniques, concurrency and correctness.

Programme module type:	Either CS4103 or CS5024 is compulsory for Computer Communication Systems Postgraduate Programme Optional for other Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4201 Programming Language Design and Implementation

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

This module studies the design and implementation of programming languages. Topics include language design principles, abstract syntax, evaluation mechanisms, binding, type systems, polymorphism, data encapsulation, exceptions, formal definition of programming languages, compiling techniques, abstract machine design, run-time systems and garbage collection.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4202 Computer Architecture

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

This module studies the principles and technology of modern computer architectures, with particular emphasis on performance and acceleration. Topics include the CPU, memory, interconnect architectures, performance concepts and programming models.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

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CS4203 Computer Security

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

This module introduces the basic concepts of computer security and cryptography, common attacks and defences against them, and relevant legal and policy frameworks.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Anti-requisite(s):	IS5104
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4204 Concurrency and Multi-Core Architectures

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module presents the key concepts of programming multi-core/many-core and other parallel architectures, ranging from the identification and use of parallel patterns; the use of structured parallelism to implement task and data parallelism; key implementation issues, including task identification, granularity, scheduling, threads, garbage collection, task placement, locality; performance monitoring and debugging.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4302 Signal Processing and Perception for Digital Media

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

The module will introduce students to the concepts of analogue and digital media and review current standards and technologies used in the production, transport and rendering of digital multimedia. Within the context of networked multimedia the concept of Quality-of-Service will be introduced and the issues involved in transporting time-sensitive data across computer networks will be explained. Specific examples drawn from Internet-based projects, protocols and standards will be used to illustrate these issues.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4303 Video Games

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

This module builds on the general-purpose programming abilities acquired earlier, introducing games-specific techniques and material. Computer games are now a bigger industry than films, yet they are continuing to develop. While the budget for a new game may rival that of a Hollywood blockbuster, there is also a growing demand for lower octane coffee-break games that can be accessed for short periods in a browser, and for games that can be played on-the-go with a mobile device. Games programming skills are developed through lectures and laboratories, culminating in the creation of actual games.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4402 Constraint Programming

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces constraint-based reasoning as a powerful mechanism for knowledge representation and inference. It provides a thorough grounding in the constraint satisfaction/constrained optimisation problem formalism, and covers both basic techniques for implementing constraint solvers and the use of advanced techniques with a modern solver.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme.
	Optional for Erasmus Mundus Dependable Software Systems Postgraduate Programme and other Postgraduate Programmes in the School
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

Computer Science - Computer Science - EngD - 2017/8 - August 2017

Optional modules:

CS5003 Masters Programming Projects

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	Variable			

This module reinforces key programming skills gained in CS5002, by means of a series of coursework assignments posed as small programming projects. These are designed to offer increasing depth and scope for creativity as the module progresses.

Programme module type:	Compulsory for Computing and Information Technology Postgraduate Programme. Optional for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems, Intensive Analysis, Information Technology, Human Computer Interaction MSc Programmes, EngD in Computer Science		
Pre-requisite(s):	CS5002	**Anti-requisite(s):**	IS5108
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5201 Special Project for Research Engineers

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on the EngD in Computer Science			
Planned timetable:	At times to be arranged with the supervisor			

This module is available only to students on the EngD programme. It provides an opportunity for in-depth individual study, directed by an individual supervisor, of topics directly relevant to the student's intended EngD research project.

Programme module type:	Optional for the EngD in Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 supervision hours (x 15 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof S Bhatti

Further optional modules are available - see the pdf online called Computer Science - optional modules 2017/8.

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Computer Science - optional modules

Up to two from:

CS4052 Logic and Software Verification

SCOTCAT Credits:	15	SCQF Level 10	Semester:	1
Planned timetable:	To be arranged.			

Building on earlier coverage of elementary logic, this module motivates the need for formal methods and software verification approaches as model checking for guaranteeing the correctness of software systems. The module covers modelling, system property specification using temporal logics, and more applied approaches to software specification and verification through the use of model checkers. Model checkers such as SPIN and UPPAAL are used both in lectures and in practical work. Petri nets and program semantics are also explored. Software correctness is thus presented as a matter not of testing but of pre-execution verification through model checking.

Programme module type:	Optional for Dependable Software Systems Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4102 Computer Graphics

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2
Planned timetable:	To be arranged.			

This module covers the fundamental concepts of computer graphics, and develops the ability to apply the concepts to the generation of realistic, synthetic images of 3D objects and scenes. On completion of the module, students should be competent to undertake many tasks in computer graphics, and should have an understanding of the theory underlying many of the relevant techniques.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4103 Distributed Systems

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2
Planned timetable:	To be arranged.			

This module covers the fundamentals of distributed systems, with reference to system models, programming languages, algorithmic techniques, concurrency and correctness.

Programme module type:	Either CS4103 or CS5024 is compulsory for Computer Communication Systems Postgraduate Programme Optional for other Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

Computer Science - Optional modules - 2017/8 - January 2018

CS4144 Visual Analytics

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2	
Planned timetable:	To be arranged.				

This module provides foundations for visual analytics. Visual analytics focuses on practical skills and knowledge that enable large scale analysis of real-world datasets, an increasingly important activity in research and industry. This includes three main important aspects: data preparation and processing, visual data representation and data analysis processes (both on a computational and human level).

Programme module type:	Optional for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems, Computing and Information Technology, Human Computer Interaction, Software Engineering	
Pre-requisite(s):	CS5001	**Anti-requisite(s):** CS5044
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour lecture (x 11 weeks), 1-hour seminar (x 8 weeks)	
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%	
Module coordinator:	hons-coord-cs@st-andrews.ac.uk	

CS4201 Programming Language Design and Implementation

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1	
Planned timetable:	To be arranged.				

This module studies the design and implementation of programming languages. Topics include language design principles, abstract syntax, evaluation mechanisms, binding, type systems, polymorphism, data encapsulation, exceptions, formal definition of programming languages, compiling techniques, abstract machine design, run-time systems and garbage collection.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4202 Computer Architecture

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1	
Planned timetable:	To be arranged.				

This module studies the principles and technology of modern computer architectures, with particular emphasis on performance and acceleration. Topics include the CPU, memory, interconnect architectures, performance concepts and programming models.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4203 Computer Security

SCOTCAT Credits:	15	SCQF Level 10	Semester:	1
Planned timetable:	To be arranged.			

This module introduces the basic concepts of computer security and cryptography, common attacks and defences against them, and relevant legal and policy frameworks.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Anti-requisite(s):	IS5104
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4204 Concurrency and Multi-Core Architectures

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2
Planned timetable:	To be arranged.			

This module presents the key concepts of programming multi-core/many-core and other parallel architectures, ranging from the identification and use of parallel patterns; the use of structured parallelism to implement task and data parallelism; key implementation issues, including task identification, granularity, scheduling, threads, garbage collection, task placement, locality; performance monitoring and debugging.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4302 Signal Processing and Perception for Digital Media

SCOTCAT Credits:	15	SCQF Level 10	Semester:	1
Planned timetable:	To be arranged.			

The module will introduce students to the concepts of analogue and digital media and review current standards and technologies used in the production, transport and rendering of digital multimedia. Within the context of networked multimedia the concept of Quality-of-Service will be introduced and the issues involved in transporting time-sensitive data across computer networks will be explained. Specific examples drawn from Internet-based projects, protocols and standards will be used to illustrate these issues.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk
Module teaching staff:	

Computer Science - Optional modules - 2017/8 - January 2018

CS4303 Video Games

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

This module builds on the general-purpose programming abilities acquired earlier, introducing games-specific techniques and material. Computer games are now a bigger industry than films, yet they are continuing to develop. While the budget for a new game may rival that of a Hollywood blockbuster, there is also a growing demand for lower octane coffee-break games that can be accessed for short periods in a browser, and for games that can be played on-the-go with a mobile device. Games programming skills are developed through lectures and laboratories, culminating in the creation of actual games.

Programme module type:	Optional for Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks) and fortnightly tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

CS4402 Constraint Programming

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces constraint-based reasoning as a powerful mechanism for knowledge representation and inference. It provides a thorough grounding in the constraint satisfaction/constrained optimisation problem formalism, and covers both basic techniques for implementing constraint solvers and the use of advanced techniques with a modern solver.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme. Optional for Erasmus Mundus Dependable Software Systems Postgraduate Programme and other Postgraduate Programmes in the School
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks) and fortnightly tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	hons-coord-cs@st-andrews.ac.uk

Up to two from:

IS5102 Database Management Systems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module introduces the core principles and techniques required in the design and implementation of database systems. With a focus on relational database management systems, topics include database design theory; E-R modelling; data definition and manipulation languages; database security and administration. There is a significant practical element to the module, which will require students to build and manipulate a database.

Programme module type:	Optional for all Postgraduate Programmes within the School of Computer Science. Optional for Applied Statistics and Datamining MSc programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

IS5103 Web Technologies

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module introduces the principles and techniques involved in the design and implementation of web applications. A web application is a collection of web pages that interact with the user, with each other, and with various resources on a web server, including databases. There is a significant practical element to the module, which will require students to build and manipulate dynamic web pages.

Programme module type:	Optional for all Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

IS5104 Information Security Management

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module reviews key theoretical and practical aspects of Information Security Management. The module content covers higher-level technical and theoretical issues as well as management issues such as organisational, planning, certification, auditing and governance. From the student's perspective the module introduces students to a topical field of business and IT concern via varied learning styles and in depth consideration of current issues, standards and scenarios. The module uses both block learning and individual self-learning.

Programme module type:	Optional for all Taught Postgraduate Programmes.
Anti-requisite(s):	CS4203
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

IS5106 Green Information Technology

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a variety of topics and technologies in the area of Green IT and Sustainable IT. Students investigate the way in which technology contributes towards global emissions as well as its potential to enable a positive sustainable future. This includes the responsibilities and actions of IT users, as well as service providers. The module covers key factors driving Green IT from a technical, political, financial, social and legal perspective, and includes the IT life cycle, approaches to product design and the provision of IT services. Students gain understanding and insight into current issues related to sustainable IT usage and future development.

Programme module type:	Optional for all Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars and tutorials
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Computer Science - Optional modules - 2017/8 - January 2018

IS5108 Information Technology Projects

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module reinforces information technology and project management skills gained during semester 1, by means of a selection of coursework assignments posed as information technology projects. These are designed to offer increasing depth and scope for creativity as the module progresses.

Programme module type:	Optional for all Postgraduate Programmes.
Anti-requisite(s):	CS5003
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

IS5110 Digital Heritage and Preservation

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module will ground students in the principles and practice of digital methods for the promotion and preservation of natural and cultural heritage. It will investigate the value of material culture to communities as well as present and future threats. We will look at how technology, software and workflows combine to enable digital preservation. Advances in mobile and graphics technology are making digital promotion of heritage accessible and affordable. We will look at innovations in Virtual Museums Virtual Reality and Mobile computing to develop our understanding of the limitations and possibilities for the digital promotion of heritage.

Programme module type:	Optional for all Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of lectures (x 11 weeks), 2-hour practical classes x 4 weeks), 1-hour tutorial classes (x 4 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Further optional modules:

CS5003 Masters Programming Projects

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	Variable			

This module reinforces key programming skills gained in CS5002, by means of a series of coursework assignments posed as small programming projects. These are designed to offer increasing depth and scope for creativity as the module progresses.

Programme module type:	Compulsory for Computing and Information Technology Postgraduate Programme.			
	Optional for Advanced Computer Science, Artificial Intelligence, Computer Communication Systems, Intensive Analysis, Information Technology, Human Computer Interaction MSc Programmes, EngD in Computer Science			
Pre-requisite(s):	CS5002		**Anti-requisite(s):**	IS5108
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5010 Artificial Intelligence Principles

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module covers foundational knowledge of Artificial Intelligence (AI). The module gives an overview of AI and its philosophy. It covers fundamental principles in AI: logical reasoning, reasoning in the presence of uncertainty, and machine learning. It shows how search is used to solve a variety of problems in AI. Notions such as agency and uncertainty in AI are covered. Finally, the philosophy of AI in practice and the philosophical problems in AI are shown.

Programme module type:	Compulsory for Artificial Intelligence Postgraduate Programme.			
	Optional for all Postgraduate Programmes in the School of Computer Science.			
Anti-requisite(s):	CS3105		**Required for:**	CS5011
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5011 Artificial Intelligence Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module covers practical design and implementation of Artificial Intelligence (AI). It provides grounding in AI technique, covering techniques in the areas of AI reasoning, planning, doing, and learning. Finally, it is shown how to implement AI ideas in software and how to evaluate such implementation.

Programme module type:	Compulsory for Artificial Intelligence Postgraduate Programme.			
	Optional for other Postgraduate Programmes.			
Co-requisite(s):	CS5001, CS5010		**Required for:**	CS5012, CS5019
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Computer Science - Optional modules - 2017/8 - January 2018

CS5012 Language and Computation

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module covers the major aspects of natural language processing and speech understanding, including computational syntax, computational semantics, discourse processing, machine translation and speech recognition.

Programme module type:	Either CS5012 or CS4402 is compulsory for the Artificial Intelligence Postgraduate Programme. Optional for Postgraduate Programmes in the School of Computer Science.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5014 Machine Learning

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Availability restrictions:	There are 80 spaces available on this module. If necessary, a ballot will be held to select students for the module.			
Planned timetable:	To be arranged.			

Machine Learning enables computers to improve automatically with experience. A growing number of algorithms are being used to predict outcomes using patterns in collected data. This module covers the essential theory and algorithms, including mathematical foundations, and methodological approaches. It covers a variety of regression, classification and unsupervised approaches. It consists of lectures, and practical components with unassessed exercises and assessed practical coursework assignments with a final exam.

Programme module type:	Optional for all MSc programmes within the School of Computer Science except Data-Intensive Analysis.		
Pre-requisite(s):	CS5001 and Grade B or higher in Higher or A-level Maths	**Anti-requisite(s):**	ID5059
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 lab session (x 5 weeks).		
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5019 Artificial Intelligence (Special Subject)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is a guided reading module on any aspect of Artificial Intelligence not covered by other available modules. It is intended only for MSc students in Artificial Intelligence whose circumstances make it appropriate to deliver an individually designed programme of study in a specialist area of Artificial Intelligence not covered by other modules.

Programme module type:	Optional for Artificial Intelligence Postgraduate Programme.		
Pre-requisite(s):	the consent of the Head of School	**Anti-requisite(s):**	CS5029, CS5039
Learning and teaching methods and delivery:	**Weekly contact**: Tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5020 Principles of Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	TBC			

This module aims to equip students with a deep knowledge of fundamental concepts and terminologies of computer communication systems (CCS). It will illustrate fundamental principles with reference to widely-used systems and technologies for CCS and enable students to use high level tools for networked systems configuration, exploration and management of CCS. Students will also be made aware of security and privacy principles and how they are used in CCS.

Programme module type:	Compulsory for MSc in Computer Communication Systems
	Optional for all other taught postgraduate programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 6 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5022 Practice in Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module aims to introduce students to the applications, protocols and architecture of Computer Communication Systems in terms of their practical realisation, operation, control and management. It will enable them to use standard programming languages and tools in order to build communication applications and protocols and to use standard analytical and statistical tools for examining the operation and performance of communication applications, protocols and systems.

Programme module type:	Compulsory for MSc in Computer Communication Systems
	Optional for all other taught postgraduate programmes in the School of Computer Science.
Co-requisite(s):	CS5001 and CS5020
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks), 1 tutorial (x 4 weeks), lab session (x 4 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5024 Advanced Topics in Computer Communication Systems

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	TBC			

This module reinforces the basic principles and fundamental concepts of computer communication systems (CCS). It will cover, in depth, new developments and emerging topics in CCS and allow students to analyse, evaluate, critique and reproduce results from CCS research papers.

Programme module type:	Either CS4103 or CS5024 is compulsory for Computer Communication Systems Postgraduate Programmes
	Optional for all other taught postgraduate programmes in the School of Computer Science
Pre-requisite(s):	CS5022
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 6 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

Computer Science - Optional modules - 2017/8 - January 2018

CS5029 Computer Communication Systems (Special Subject)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is a guided reading module on any aspect of Computer Communication Systems not covered by other available modules. It is intended only for MSc students in Computer Communication Systems whose circumstances make it appropriate to deliver an individually designed programme of study in a specialist area of Computer Communication systems not covered by other modules.

Programme module type:	Optional for Computer Communication Systems Postgraduate Programme.		
Pre-requisite(s):	the consent of the Head of School	**Anti-requisite(s):**	CS5019, CS5039
Learning and teaching methods and delivery:	**Weekly contact**: Tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5030 Software Engineering Principles

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module examines the key concepts in small and large-scale software development. Project management is explored, along with the processes involved in developing system requirements, functionality and high-level descriptions necessary to guide the development of, and assess, a working system.

Programme module type:	Compulsory for Software Engineering Postgraduate Programme. Optional for other Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5031 Software Engineering Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces advanced software engineering methods supporting the development of complex, composite software systems with an emphasis on software configuration management, reuse and test-driven development practices. It examines software reuse at different levels of scale, from software libraries and components to service-oriented architectures and discusses how reuse presents both challenges and opportunities for the development of quality software. A key process in today's software engineering practice is testing; the module introduces testing methods that complement the different scales of reuse-oriented development, from unit-level testing to integration testing and system-level testing. Students work on a project to design, implement and test a complex, distributed application to put the content of the lectures into practice. Reference is made to the content of the co-requisite Software Engineering Principles module where appropriate, so that students learn how the practices studied fit into a larger software engineering lifecycle.

Programme module type:	Compulsory for Software Engineering Postgraduate Programme. Optional for other Postgraduate Programmes.		
Co-requisite(s):	CS5001, CS5030, CS5033	**Required for:**	CS5032, CS5039
Learning and teaching methods and delivery:	**Weekly contact**: Weekly lectures, seminars, tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5032 Critical Systems Engineering

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The aim of this module is to provide students with an understanding of the concepts and development techniques used for critical, socio-technical systems. When students have completed this module they will: understand the notion of system dependability and the key characteristics of dependable systems; understand the specialised software engineering techniques that may be used to ensure dependable system operation; have practical experience of applying some of these techniques in systems specification, design or implementation.

Programme module type:	CS5032 or CS5033 is compulsory for Software Engineering Postgraduate Programme
	Optional for all other Postgraduate Programmes in the School of Computer Science
Learning and teaching methods and delivery:	**Weekly contact**: Weekly lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5033 Software Architecture

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to the concept of software architecture, as an aid to software design, reuse and evolution. When students have completed this module, they will: have knowledge of the key elements of software architectures; recognise architectural styles of existing software systems; be able to describe the software architecture of a non-trivial system accurately; be able to construct systems that satisfy an architectural description; understand how software architecture aids design, reuse and evolution of software.

Programme module type:	CS5032 or CS5033 is compulsory for Software Engineering Postgraduate Programme
	Optional for all other Postgraduate Programmes in the School of Computer Science
Co-requisite(s):	CS5031
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5039 Software Engineering (Special Subject)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is a guided reading module on any aspect of Software Engineering not covered by other available modules. It is intended only for MSc students in Software Engineering whose circumstances make it appropriate to deliver an individually designed programme of study in a specialist area of Software Engineering not covered by other modules.

Programme module type:	Optional for MSc in Software Engineering Postgraduate Programme.		
Pre-requisite(s):	the consent of the Head of School	**Anti-requisite(s):**	CS5019, CS5029
Learning and teaching methods and delivery:	**Weekly contact**: Tutorials and practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

CS5040 Human Computer Interaction Principles and Methods

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module provides a grounded introduction to the principles of human computer interaction in the context of evaluation paradigms. Material includes: history of interfaces and interaction; the human (vision, perception, memory, hearing); the computer (from existing to next generation ubiquitous computing systems); paradigms of interaction; evaluation paradigms in HCI; guidelines and heuristics; experimental design and hypothesis testing in HCI; quantitative evaluation methods in HCI; qualitative evaluation methods in HCI.

Programme module type:	Compulsory for MSc Human Computer Interaction Postgraduate Programme. Optional for other Postgraduate Programmes
Anti-requisite(s):	CS3106
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, practical classes and tutorials.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5041 Interactive Software and Hardware

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1

Availability restrictions:	The module is available to all students enrolled on the MSc Human Computer Interaction Programme. A quota for other students may be necessary due to lab equipment constraints, in which case preference will be given to other MSc students.
Planned timetable:	To be arranged.

This module develops prototype-building skills for a wide range of interactive technologies. Students learn how to create interactive hardware and software using technologies such as tangible programming kits, mobile devices, microprocessor kits and depth cameras. There is a strong emphasis on practical assignments.

Programme module type:	Either CS5041 or CS5044 is compulsory for Human Computer Interaction Postgraduate Programmes Optional for other Postgraduate Programmes
Co-requisite(s):	CS5001
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, practical classes and tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

CS5042 User-Centred Interaction Design

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Availability restrictions:	The module is available to all students enrolled on the MSc Human Computer Interaction Programme. A quota for other students may be necessary due to lab equipment constraints, in which case preference will be given to other MSc students.			
Planned timetable:	To be arranged.			
This module studies methodologies in interaction design that are at the core of current practice for user interface engineering and application development. Students work towards creating designs of interactive systems that are based on human, group and organisation needs rather than on technical constraints. The module does not involve a great deal of programming.				
Programme module type:	Compulsory for MSc Human Computer Interaction Postgraduate Programme Optional for all Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 3 practicals and 1 tutorial.			
Assessment pattern:	Coursework = 85%, Presentation = 15%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5044 Information Visualisation and Visual Analytics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module provides an introduction to information visualisation and visual analytics. It focuses on the question of how to utilise visual representations to make information accessible for exploration and analysis. The module covers basic principles of visualisation design and interaction principles. It introduces a range of visualisation techniques and tools, and discusses how these can be effectively applied in various scenarios for communication, exploration and analysis, and how to evaluate information visualisations in different contexts.				
Skills in designing, developing, and evaluating information visualisations are reinforced through practical assignments. There are no pre-requisites for this module but students should have basic programming skills (e.g. in Java or JavaScript).				
Programme module type:	Either CS5041 or CS5044 is compulsory for Human Computer Interaction Postgraduate Programmes Optional for all Postgraduate Programmes			
Pre-requisite(s):	CS5001or CS5002			
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour lecture (x 11 weeks), 1-hour seminar (x 8 weeks)			
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

CS5052 Data-Intensive Systems

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged			

The era of big data is upon us - the volume, velocity and variety of enterprise and scientific data are growing at an exponential rate and will continue to do so for the foreseeable future. This module presents the programming paradigms, algorithmic techniques and design principles for large-scale distributed systems, such as those utilised by companies such as Google, Amazon and Facebook. This module is different in scope from CS4103 (distributed systems) as it focuses primarily on building and utilising large-scale clusters. The module will cover: distributed systems architecture, replication and fault tolerance, storage, coordination, scheduling algorithms, cluster computing, cloud computing, virtualisation, programming models (e.g., MapReduce), stream processing, decentralised systems (e.g., Chord), incentive-based systems (e.g., BitTorrent), and social computing (e.g., crowd sourcing techniques). This module will draw from the latest research in both academia and industry.

Programme module type:	Optional for Data-Intensive Analysis MSc Programme.
	Optional for Computer Communication Systems MSc and all other Postgraduate programmes within the School.
Pre-requisite(s):	CS5001
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 tutorial (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	dopgt-cs@st-andrews.ac.uk
Module teaching staff:	

CS5055 Data Ethics and Privacy

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged			

There is much interest in both academic research and the mass media about the potential effects of algorithmic decision-making and bias, with stories about manipulation of news feeds affecting elections, discriminatory adverts or search engine results, companies using big data to subvert regulators, and so forth. The aims of this module are to introduce students to the various ethical dilemmas that are arising in our "data-driven society", with an emphasis on the ethics of using data science, data protection and privacy, and algorithmic governance.

Programme module type:	This is an optional module for these PGT programmes as well as any 20 month 'with English Language' versions of these programmes: - Advanced Computer Science MSc - Artificial Intelligence MSc - Computer Communication Systems MSc - Computing and Information Technology MSc - Dependable Software Systems - European Masters MSc - Human Computer Interaction MSc - Information Technology MSc - Management and Information Technology MSc - Software Engineering MSc
Learning and teaching methods and delivery:	**Weekly contact**: Weekly seminars (x 11 weeks), practical classes (x 2 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk
Module teaching staff:	

ID5059 Knowledge Discovery and Datamining

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri

Contemporary data collection can be automated and on a massive scale e.g. credit card transaction databases. Large databases potentially carry a wealth of important information that could inform business strategy, identify criminal activities, characterise network faults etc. These large scale problems may preclude the standard carefully constructed statistical models, necessitating highly automated approaches. This module covers many of the methods found under the banner of "Datamining", building from a theoretical perspective but ultimately teaching practical application. Topics covered include: historical/philosophical perspectives, model selection algorithms and optimality measures, tree methods, bagging and boosting, neural nets, and classification in general. Practical applications build sought-after skills in programming (typically R, SAS or python).

Programme module type:	Compulsory for Applied Statistics and Datamining Postgraduate Programme.
	Compulsory for Data-Intensive Analysis MSc Programme.
	Optional for all Postgraduate Programmes.
Anti-requisite(s):	MT5759
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	masters-coord-cs@st-andrews.ac.uk

School of Divinity

Taught Programmes

Postgraduate Diploma:
(this is also the Taught element of the MLitt and MPhil programme):

Analytic and Exegetical Theology
Bible and Contemporary World
Biblical Languages and Literature
Systematic and Historical Theology
Theology, Imagination and the Arts

MLitt:
Analytic and Exegetical Theology
Bible and Contemporary World
Biblical Languages and Literature
Systematic and Historical Theology
Theology, Imagination and the Arts

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Letters Analytic and Exegetical Theology

Programme Requirements

Analytic and Exegetical Theology - MLitt
DI5350 (40 credits) **and** DI5351 (40 credits) **and** DI5352 (40 credits) **and** DI5099 (60 credits)

Compulsory modules:

DI5350 Analytic Theology: God, History and Revelation				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module provides an introduction to analytic theology by locating it within key developments in analytic philosophy over the last four decades. It then proceeds to assess the justification of Christian theological claims in four parts. The first considers the most significant contemporary challenges to Christian theism and the propriety or otherwise of contemporary responses to these. The second considers the relationship between the Christian understanding of God and the nature of revelation. The third assesses the biblical interpretation of God's relationship to history. The final part assesses the significance for the theological epistemology of God's involvement in history.				
Programme module type:	Compulsory for Analytic and Exegetical Theology Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 11 weeks), 2-hour seminar (x 11 weeks) and 1.5-hour weekly institute seminar (x 11 weeks)			
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	Prof A Torrance			
Module teaching staff:	various			

DI5351 Reconciliation: Divine and Human				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module explores the doctrine of reconciliation and its implications for human relationships from the perspective of analytic theology. It proceeds through an engagement with biblical exegesis and theological retrieval to analyse the essential features of the Christian doctrines of reconciliation and forgiveness. This it will carry out by considering the key elements in the biblical interpretation of God's relationship to humanity. Second, it will engage in critical analysis of influential expositions of the atonement and reconciliation in the history of theology. Third, it will assess the socio-political implications of the theology of reconciliation and forgiveness.				
Programme module type:	Compulsory for Analytic and Exegetical Theology Postgraduate programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 11 weeks), 2-hour seminar (x 11 weeks)			
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	Dr A Torrance			
Module teaching staff:	various			

DI5352 Persons: Divine and Human

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will examine and evaluate the concept of the 'person' as used to describe first, the nature of God and the Trinity and, second, the nature of human beings. In doing this it will seek to integrate exegetical, metaphysical and theological analysis and critique.

In addition to an assessment of the interpretations of divine personhood and the imago dei in the biblical material and the theological tradition, the course will consider: i) metaphysical issues associated with the concept of identity; ii) the implications of the dualist-physicalist debate; iii) the nature of human relations; and, iv) questions of human uniqueness and purposiveness.

Programme module type:	Compulsory for Analytic and Exegetical Theology Postgraduate programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 11 weeks), 2-hour seminar (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

DI5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. A completed dissertation of not more than 15,000 (excluding bibliography) words must be submitted by a date specified in August.

Programme module type:	Compulsory for MLitt Postgraduate Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Assigned supervisors

Master of Letters Bible and Contemporary World

Also available as Postgraduate Diploma and as single modules (credit-only)

Programme Requirements

Bible and the Contemporary World - MLitt
DI5099 (60 credits) **and** 80 credits from Module List: DI5901 - DI5925 **and** 40 credits from Module List: DI5221, DI5431, DI5441 **Further requirements** Choose 180 credits in academic year With the permission of the Head of School the student may take 5000-level modules offered by the School outwith the range (DI5221, DI5431, DI5441). Providing at least 90 credits are achieved at 5000-level students may, in exceptional circumstances and with the permission of the Course Coordinator and Head of School(s), take credits at other levels and in other Schools.

Postgraduate Diploma: 120 credits from MLitt taught element (excluding DI5099)

Bible and the Contemporary World (distance learning) - MLitt
DI5999 (60 credits) **and** Between 0 and 80 credits from Module List: DI5901 - DI5925 Students normally select 2 modules from the list of options in Year 1 (80 credits) and one module and the dissertation in Year 2 (100 credits).

Postgraduate Diploma: 120 credits from MLitt taught element (excluding DI5999)

Compulsory module for the MLitt Local full-time mode:

DI5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. A completed dissertation of not more than 15,000 (excluding bibliography) words must be submitted by a date specified in August.				
Programme module type:	Compulsory for MLitt Postgraduate Programmes within the School.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Assigned supervisors			

Compulsory module for the MLitt - Distance Learning mode:

DI5999 Dissertation (Distance Learning)				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	1 & 2 (taught twice)
Planned timetable:	At times to be arranged with the supervisor.			
In this module students undertake research under individual supervision towards writing a dissertation on a topic agreed in conjunction with their supervisor.				
Programme module type:	Compulsory for Bible and Contemporary World MLitt Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Coursework = 100%			
Additional information from School:	Students normally have seven months in which to research and write their dissertation in this part-time programme. Supervision is normally by video-conference or telephone.			
Module coordinator:	Dr E Stoddart			

2017/8 modules - Distance learning mode:

DI5907 The Book of Revelation

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1
Planned timetable:	n/a - distance learning			

The module will examine the Book of Revelation (The Revelation of St John) in its biblical, historical and contemporary contexts. The core of the module will involve exegetical study of the book itself, with due attention paid to the genre of "apocalypse" and to the historical context from which the book came. Around this core we will examine the various interpretations of Revelation that are to be found through history, up to the present day, when the book has been massively popularized (and arguably heavily misunderstood) through ecclesiastical movements and through fictional works such as the Left Behind series.

Programme module type:	Optional for Bible and Contemporary World Postgraduate Taught Programmes.
Anti-requisite(s):	DI4626 or DI4627
Learning and teaching methods and delivery:	**Weekly contact**: Delivered online asynchronous independent study after initial study week in St Andrews
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Shively
Module teaching staff:	Dr E Shively

DI5924 Surveillance, Theology and the Bible

SCOTCAT Credits:	40	SCQF Level 11	Semester:	2
Planned timetable:	Not relevant.			

This module will help you think critically about surveillance in contemporary life. You will consider current theories from the field of surveillance studies as well as turning to the Hebrew Bible and New Testament for themes that might stimulate the appraisal of surveillance in other ways. Christian theological perspectives on technology will direct your attention to issues at stake that do not otherwise readily come to the surface. Privacy will normally be a particular focus for biblical and theological examination but so too will questions of human flourishing and security. You will also give some consideration to how Christians experience surveillance in specific contexts and how churches and Christian organisations deploy surveillance technologies too.

Programme module type:	Optional for Bible and Contemporary World Postgraduate Taught Programmes. [Not available to any student not registered for one of these programmes]
Anti-requisite(s):	DI5922
Learning and teaching methods and delivery:	**Weekly contact**: Delivered online asynchronous independent study after initial study week in St Andrews
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Stoddart
Module teaching staff:	Dr E Stoddart

Optional modules - Local mode:

Above modules plus:

DI5431 Theological Engagements with the Arts: Rationales, Methods and Texts				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1

Availability restrictions:	Not available as an optional module for any other programme, except with the Permission of the Head of School.
Planned timetable:	2.00 pm - 6.00 pm Thu

The arts are central to most human cultures, and are widely valued as an important and enriching part of our existence together as creatures in God's world. Today there is a burgeoning interest in the arts among theologians and biblical scholars across the denominational and theological spectrum. But this takes many different forms and proceeds in some rather divergent directions. This module will investigate some basic questions of definition and rationale pertaining to the conversation between theology and the arts. Students will examine a representative selection of different accounts of and approaches taken to the conversation within this interdisciplinary field, earthing the generalities of theory in continuous attention to particular artistic texts.

Programme module type:	Compulsory for Theology, Imagination and the Arts Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours.
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr G Hopps
Module teaching staff:	Dr G Hopps

DI5441 Christian Doctrine and the Arts				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1

Availability restrictions:	Not available as an optional module for any other programme, except with the Permission of the Head of School.
Planned timetable:	3.00 pm - 5.00 pm Tue and 3.00 pm - 5.00 pm Fri

This module will examine how the central articles of the Christian faith, as expressed in the Apostles' Creed, have been engaged by artists throughout the history of Christianity. For each article of the creed, one major artwork - visual, literary or musical - will serve as the locus for discussing changing theological approaches to that doctrine and for examining the artistic methods developed to engage it (often in ways inaccessible to non-artistic forms of expression). Each week, this central discussion will be consolidated by student-led consideration of smaller artworks. By the end of the semester, students will have gained a basic grasp of the historical development both of Christian doctrine and of Western art, and of the distinctive ways in which Christianity and artistic forms have challenged, influenced and enlarged each other, and continue to do so.

Programme module type:	Compulsory for Theology, Imagination and the Arts Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours.
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr J Wolfe
Module teaching staff:	Dr J Wolfe

Masters in Biblical Languages and Literature

Also available as Postgraduate Diploma

Programme Requirements

Biblical Languages and Literature - MLitt
DI5105 (20 credits) **and** (20 credits from Module List: DI5106, (DI4726, DI5080 **or** 40 credits from Module List: DI5106, (DI4726, DI5080) **and** (20 credits from Module List: DI5107, DI3716, DI5080 **or** 40 credits from Module List: DI5107, DI3716, DI5080) **and** Between 20 and 60 credits from Module List: DI5150 - DI5295, DI5429, (DI4705 and DI5080) **and** DI5099 (60 credits) **Further requirements** Students must select 180 credits. Please note DI5080 may only be taken once, so a choice must be made between DI4726, DI3716 and DI4705. With permission this programme may include: DI5080 and 30 - 40 credits: from a language (chosen from French (FR), German (GM), Italian (IT), Latin (LT), Persian (PR), Spanish (SP) language modules at the level appropriate to the student's level of proficiency.

Postgraduate Diploma: 120 credits from MLitt taught element (excluding DI5099)

MPhil: 120 credits from MLitt taught element (excluding DI5099) plus a thesis of not more than 40,000 words

Compulsory modules:

DI5105 Textual Criticism of the Hebrew Bible and the New Testament

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will critically survey the most important witnesses, that is both manuscripts and text traditions, of the Hebrew Bible/Old Testament, the Septuagint and the New Testament and show how the different manuscripts are used to create text editions. The class will also focus on the printed texts and their textual apparati and demonstrate how to successfully use these.	
Programme module type:	Compulsory for Biblical Languages and Literature Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours (Weeks 1 -5)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr W Tooman
Module teaching staff:	Dr W Tooman

AND

DI4726 Hebrew Readings

SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module intends to acquaint the student with a range of Hebrew Readings. Three areas of specialisation will be pursued: text criticism, exegesis, and reading and translating texts from the Old Testament, with a particular focus on the last of these. Text criticism is an advanced subject area, requiring cognate language skills and detailed work in the history of the Hebrew language. To this end, the module will familiarise students with the textual apparatus of (BHS) Biblia Hebraica Stuttgartensia and will attend to the logic of text-critical decisions deployed by the standard technical commentary series, notably The International Critical Commentary Series and the Hermenia Commentary Series.	
Programme module type:	Either DI5106 or DI4726 + DI5080 is compulsory for Biblical Languages and Literature Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 1-hour lecture and 1 x 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr W Tooman
Module teaching staff:	Dr W Tooman

PLUS

DI5080 Guided Study in Divinity					
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2 1	
Availability restrictions:	Available only to Taught Postgraduate students in combination with an undergraduate module. It may only be taken once.				
Planned timetable:	To be arranged.				
The project enables a student to research a special topic of his/her choice (in consultation with staff) and to develop it at length in an essay. The length of the essay should be approximately 3,000 words, and must not in any case exceed 3,500 words (to include text, footnotes and appendices). It must be submitted by the end of the semester. This module is not routinely offered and may only be taken by special arrangement, with the agreement of the Head of School.					
Programme module type:	Optional for Bible and Contemporary World, Biblical Languages and Literature, and Systematic and Historical Theology Postgraduate Programmes.				
Co-requisite(s):	One or more language modules				
Learning and teaching methods and delivery:	**Weekly contact**: To be arranged				
Assessment pattern:	Coursework (Essay) = 100%				
Module coordinator:	TBC in consultation with Director of the programme				
Module teaching staff:	TBC in consultation with Director of the programme				

AND

DI5107 Greek Readings					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2	
Planned timetable:	To be arranged.				
This module is a technical introduction to reading the Greek New Testament: its text, translation, interpretation, historical location and theology. The module is designed, principally, to assist students in building their technical skills to work competently with primary sources. As such, class periods will be structured around student performance in reading, translating, commenting on and interpreting the chosen text.					
Programme module type:	Either DI5107 or DI3716 + DI5080 is compulsory for Biblical Languages and Literature Postgraduate Programme. Optional for other Divinity Postgraduate Programmes.				
Pre-requisite(s):	Prior knowledge of Greek to appropriate standard				
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours (Weeks 1 - 5)				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr S Hafemann				
Module teaching staff:	Dr S Hafemann				

OR (depending on other module choices)

DI3716 Reading in the Greek New Testament

SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am Mon and Thu			

Building on the competencies learned in DI2201, students will gain familiarity with advanced grammatical concepts and syntactical relationships as they are encountered inductively through the reading of primary texts. In addition, students will learn to use and evaluate a standard reference work regarding intermediate Koine Greek grammar as they learn to analyze the primary texts by using the syntactical categories of contemporary scholarship. Finally, in order to facilitate future reading, students will increase their vocabulary by mastering every word that occurs 25 times or more in the Greek New Testament.

Programme module type:	Either DI5107 or DI3716 + DI5080 is compulsory for Biblical Languages and Literature Postgraduate Programmes
Anti-requisite(s):	DI4632
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr S Hafemann
Module teaching staff:	Dr S Hafemann

PLUS

DI5080 Guided Study in Divinity

See entry above

DI5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. A completed dissertation of not more than 15,000 (excluding bibliography) words must be submitted by a date specified in August.

Programme module type:	Compulsory for MLitt Postgraduate Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Assigned supervisors

Optional modules:

DI5429 Biblical Themes					
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	

Planned timetable:	To be arranged.

This module will explore the development of one or more themes (e.g. temple or covenant) through the biblical texts. Proper attention will be paid to the historical-critical dimensions of these themes, including textual/philological detail and background, but the module will be particularly concerned with the ways in which they develop across the Testaments and are taken up into Christian theology, providing frameworks and concepts for different elements of this. Post-biblical Jewish interpretations may also be examined as part of the study, but the module will be specifically oriented towards the significance of themes in the Bible for Christian theology.

The specific theme(s) to be covered in a particular year will be publicised in the module handbook for that year.

Programme module type:	Compulsory for Scripture and Theology Postgraduate Programme. Optional for Biblical Languages and Literature
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours.
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%
Module Co-ordinator:	TBC
Lecturer(s)/Tutor(s):	TBC

OR

DI4705 Biblical Aramaic					
SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	1	

Planned timetable:	Lecture: 2.00 pm - 3.00 pm Mon, Seminar: 2.00 pm - 4.00 pm Fri

This module introduces students to a Semitic language related to Hebrew, in which parts of the Hebrew Bible are written. It consists of an introduction to basic elements of the language and study of selected texts from the biblical books of Daniel (court tales describing life in the Babylonian capital during the exile) and Ezra (diplomatic texts from the post-exilic period dealing with the return of the exiles to Palestine and the rebuilding of the temple in Jerusalem).

Programme module type:	This module introduces students to a Semitic language related to Hebrew, in which parts of the Hebrew Bible are written. It consists of an introduction to basic elements of the language and study of selected texts from the biblical books of Daniel (court tales describing life in the Babylonian capital during the exile) and Ezra (diplomatic texts from the post-exilic period dealing with the return of the exiles to Palestine and the rebuilding of the temple in Jerusalem).
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 1-hour lecture.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module Co-ordinator:	Prof J Davila
Lecturer(s)/Tutor(s):	Prof J Davila

PLUS

DI5080 Guided Study in Divinity

See entry above

Master of Letters Systematic and Historical Theology

Programme Requirements

Systematic and Historical Theology - MLitt
DI5501 (20 credits) **and** 100 credits from Module List: DI5415, DI5500 - DI5595 **and** Between 0 and 40 credits from Module List: DI5080, FR, GM, GK, IT, LT, PR, SP Language Modules **and** DI5099 (60 credits) **Further requirements** Students must select 180 credits. Students may substitute up to 30 credits from 3000- or 4000-level DI modules, plus DI5080, with the approval of the Course Coordinator, if they are not doing language modules.

Compulsory modules:

DI5501 The Origins of Christian Theology					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	10.00 am - 12.00 noon Tue and 10.00 am - 12.00 noon Thu				
This module examines the beginnings of Christian theology in the New Testament texts, and in early Christian writers. Themes considered may include the doctrine of God; early Christology; ecclesiology; and creation.					
Programme module type:	Compulsory for Systematic and Historical Theology Postgraduate Programme Optional for other Divinity Postgraduate Programmes.				
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours. (Weeks 1 - 6).				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr T J Lang				
Module teaching staff:	Prof J Wolfe				

DI5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. A completed dissertation of not more than 15,000 (excluding bibliography) words must be submitted by a date specified in August.				
Programme module type:	Compulsory for MLitt Postgraduate Programmes within the School.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Assigned supervisors			

Optional modules:

DI5080 Guided Study in Divinity				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	~~2~~ 1
Availability restrictions:	Available only to Taught Postgraduate students in combination with an undergraduate module. It may only be taken once.			
Planned timetable:	To be arranged.			
The project enables a student to research a special topic of his/her choice (in consultation with staff) and to develop it at length in an essay. The length of the essay should be approximately 3,000 words, and must not in any case exceed 3,500 words (to include text, footnotes and appendices). It must be submitted by the end of the semester. This module is not routinely offered and may only be taken by special arrangement, with the agreement of the Head of School.				
Programme module type:	Optional for Bible and Contemporary World, Biblical Languages and Literature, and Systematic and Historical Theology Postgraduate Programmes.			
Co-requisite(s):	One or more language modules			
Learning and teaching methods and delivery:	**Weekly contact**: To be arranged			
Assessment pattern:	Coursework (Essay) = 100%			
Module coordinator:	TBC in consultation with Director of the programme			

~~DI5415 Theology Special Topic: (Title to be confirmed)~~

~~SCOTCAT Credits:~~	~~20~~	~~SCQF Level 11~~	~~Semester:~~	~~1 or 2~~
~~Planned timetable:~~	~~3.00 pm - 5.00 pm Tue and 3.00 pm - 5.00 pm Thu~~			

~~The project enables students to research a special topic under the guidance of a member of staff and to develop it at length in dissertation form. The length of the dissertation should be approximately 6,000 words, and must not in any case exceed 7,000 words (to include text, footnotes and appendices). It must be submitted by the end of the semester.~~

~~This module is not routinely offered and may only be taken by special arrangement, with the agreement of the Head of School.~~

~~Programme module type:~~	~~Optional for Biblical Languages and Literature or Scripture and Theology or Systematic and Historical Theology Postgraduate Programmes.~~
~~Learning and teaching methods and delivery:~~	~~**Weekly contact**: 4 hours (Weeks 1 - 6)~~
~~Assessment pattern:~~	~~Coursework = 100%~~
~~Module coordinator:~~	~~Prof A Torrance~~

DI5523 The Doctrine of the Trinity

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	3.00 pm - 5.00 pm Tue and 3.00 pm - 5.00 pm Thu			

This module will examine the development the doctrine of the Trinity from the fourth-century conciliar settlements down to the present day, paying particular attention to the context of, and the historical claims made by, writers associated with the late twentieth-century 'Trinitarian revival', and the place claimed for Trinitarian doctrine within systematic theology there.

Programme module type:	Optional for Systematic and Historical Theology, and for Divinity Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours. (Weeks 1-5 essay submitted week 6)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Holmes

DI5525 Christology

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module will examine the development of Christology from the conciliar debates of the fifth century to contemporary political christologies. Students will investigate how dogmatic constructions and emphases relate to the intellectual and / or cultural context in which christologies are produced.

Programme module type:	Optional for Systematic and Historical Theology, and for Divinity Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours. (Weeks 1 - 6)
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

DI5526 A Selected Mediaeval Theologian

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Mon and 9.00 am - 11.00 am Wed			

This module will allow students to engage at length and in depth with the thought of a single, formative, thinker. Particular attention will be given to the deep systematic structures of the corpus, and to the ways in which historical and cultural context informs the theological interests and constructions of the thinker.

Programme module type:	Optional for Systematic and Historical Theology, and for Divinity Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours (weeks 7-11)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr W Hyland

Masters in Theology, Imagination and the Arts

Programme Requirements

Theology, Imagination and the Arts - MLitt
DI5431 (40 credits) **and** DI5441 (40 credits) **and** DI5442 (40 credits) **and** DI5099 (60 credits)

Compulsory modules:

DI5431 Theological Engagements with the Arts: Rationales, Methods and Texts					
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	
Availability restrictions:	Not available as an optional module for any other programme, except with the Permission of the Head of School.				
Planned timetable:	2.00 pm - 6.00 pm Thu				
The arts are central to most human cultures, and are widely valued as an important and enriching part of our existence together as creatures in God's world. Today there is a burgeoning interest in the arts among theologians and biblical scholars across the denominational and theological spectrum. But this takes many different forms and proceeds in some rather divergent directions. This module will investigate some basic questions of definition and rationale pertaining to the conversation between theology and the arts. Students will examine a representative selection of different accounts of and approaches taken to the conversation within this interdisciplinary field, earthing the generalities of theory in continuous attention to particular artistic texts.					
Programme module type:	Compulsory for Theology, Imagination and the Arts Postgraduate Programme.				
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours.				
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%				
Module coordinator:	Dr G Hopps				
Module teaching staff:	Dr G Hopps				

DI5441 Christian Doctrine and the Arts

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any other programme, except with the Permission of the Head of School.			
Planned timetable:	3.00 pm - 5.00 pm Tue and 3.00 pm - 5.00 pm Fri			

This module will examine how the central articles of the Christian faith, as expressed in the Apostles' Creed, have been engaged by artists throughout the history of Christianity. For each article of the creed, one major artwork - visual, literary or musical - will serve as the locus for discussing changing theological approaches to that doctrine and for examining the artistic methods developed to engage it (often in ways inaccessible to non-artistic forms of expression). Each week, this central discussion will be consolidated by student-led consideration of smaller artworks. By the end of the semester, students will have gained a basic grasp of the historical development both of Christian doctrine and of Western art, and of the distinctive ways in which Christianity and artistic forms have challenged, influenced and enlarged each other, and continue to do so.

Programme module type:	Compulsory for Theology, Imagination and the Arts Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours.
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Prof J Wolfe
Module teaching staff:	Prof J Wolfe

DI5442 Religious Experience and Aesthetic Forms

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any other programme, except with the Permission of the Head of School.			
Planned timetable:	2.00 pm - 6.00 pm Mon			

Claims to religious experience can take many forms. The possibility of its mediation through various artistic media is the subject of this module. Are certain forms of architecture more conducive than others (e.g. Gothic rather than modernist)? Do certain types of music (e.g. Gregorian chant) encourage and others (e.g. pop) inhibit such experience? The module takes four main areas: architecture, painting, music and action (including drama and ballet), and explores the theoretical justifications given for using the media in question to bring (usually) one aspect of divinity to prominence rather than another.

Programme module type:	Compulsory for Theology, Imagination and the Arts Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 4 hours.
Assessment pattern:	3-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr G Corbett
Module teaching staff:	Dr G Corbett

DI5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. A completed dissertation of not more than 15,000 (excluding bibliography) words must be submitted by a date specified in August.

Programme module type:	Compulsory for MLitt Postgraduate Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Assigned supervisors

Department of Earth & Environmental Sciences

Taught Programmes

MSc:
Geochemistry
Mineral Resources
Oil and Gas Innovation

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Geochemistry

Programme Requirements

Geochemistry - MSc
45 credits from Module List: ES3008, ES5005, CH3721, ES4031 **and** (15 credits from Module List: ES5300, ES5011, ES5013, ES5301 **or** 10 credits from Module List: CH5511, CH5716) **and** 45 credits from Module List: ES5010, ES5050 - ES5051 **and** (15 credits from Module List: ES5012, ES5302 **or** 20 credits from Module List: CH5715, CH5517 - CH5518 **and** ES5099 (60 credits) 1. Entrants with a BSc Geology or Environmental Earth Sciences from St Andrews can substitute ES3011, ES3009, and ES5009 for any of the listed ES modules. 2. Entrants with a BSc in Chemistry may substitute CH3513, CH4514, CH4714 or CH5711 in place of CH3721.

Compulsory modules - Semester 1:

ES3008 Geochemistry					
SCOTCAT Credits:	15	SCQF Level 9	**Semester:**	1	
Planned timetable:	10.00 am Tue and Thu (lectures), 2.00 - 5.00 Fri (practicals)				
This module provides an introduction to geochemistry: the study of the abundance, distribution and circulation of the chemical elements in minerals, rocks, soils, water and the atmosphere. Geochemical tools are a powerful means to the study of geological, economic, and environmental problems. In the module we study the origin and distribution of the chemical elements in the Earth and solar system and review thermodynamics and kinetics as applied to Earth systems. We apply thermodynamics to make quantitative predictions regarding the outcome of chemical reactions associated with geological processes. We consider the behaviour of elements, mainly in low temperature environments. Material covered includes aqueous geochemistry and mineral precipitation and dissolution. We utilise geochemical tools to constrain changes in earth processes and climate, and to predict the impact of future change.					
Programme module type:	Normally compulsory for Geochemistry Postgraduate Programmes (in some circumstances ES3011 may be substituted). Optional for MSc in Oil and Gas Innovation				
Learning and teaching methods and delivery:	**Weekly contact**: 17 lectures, 15 hours of laboratory classes, 2 or more field classes over the semester.				
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%				
Module coordinator:	Dr N Allison				
Module teaching staff:	Dr N Allison, Prof A Finch, Dr J Rae, Dr P Savage				

ES4031 Analytical Sciences

SCOTCAT Credits:	5	SCQF Level 10	**Semester:**	1
Availability restrictions:	Available to students on the MSc Geochemistry degree and Geography Honours programme.			
Planned timetable:	To be arranged.			

This module is designed to support students who do not have a strong background in the analytical methods used in Earth Science. These include, for example, students enrolled in BSc Geography or MSc Geochemistry degree programmes. The module comprises a series of seven lectures starting with the basic principles of accuracy and precision, which are then illustrated in the context of the most common analytical methods used in the geosciences. Students are asked to independently research an analytical method of interest. This is then presented in a poster imitating the poster sessions at major conferences. Posters are marked by both students (peer assessment) and staff (different weighting). The module will give students the necessary training to allow them to excel in other Earth Science modules.

Programme module type:	Normally core for MSc Geochemsitry.
Co-requisite(s):	CH3721 for MSc Geochemistry students
Learning and teaching methods and delivery:	**Weekly contact**: 7 x 1-hour lectures and 1 x 8-hour poster presentation day over the semester.
Assessment pattern:	Coursework (Poster session) = 100%
Module coordinator:	Dr R Wilson
Module teaching staff:	Earth and Environmental Sciences staff

ES5005 Isotope Geochemistry: Theory, Techniques, and Applications

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

Isotope geochemistry has grown over the last 50 years to become one of the most important fields in the Earth sciences. The growth in the importance of isotope geochemistry reflects its remarkable success in solving fundamental problems in mantle formation, ore genesis, hydrology, hydrocarbon formation, crustal evolution, planetary formation, geochemical cycles, hydrothermal circulation, ocean circulation, and climate and environmental change. In this module, we will explore the theory of isotopes and their fractionation, including kinetic, equilibrium, and Rayleigh fractionation. We will also learn how isotope measurements are made, with an introduction to mass spectrometry methods, techniques, and analysis. The latter half of the course will be devoted to case studies and applications of isotopes to interesting problems across Earth Sciences including the evolution of the atmosphere, the formation of the solar system and planets, and climate and carbon cycle reconstructions. These case studies will introduce concepts such as clumped isotopes, isotope mass balance, mass independent fractionation, and radionuclide disequilibria.

Programme module type:	Compulsory for MSc in Geochemistry
	Optional for MSc in Oil and Gas Innovation
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures (x 10 weeks), 3-hour practical sessions (x 3 weeks)
Assessment pattern:	2-hour Practical (Open Book) Examination = 50%, Coursework = 50%
Module coordinator:	Dr A Burke
Module teaching staff:	Dr A Burke, Dr P Savage

CH3721 Physical Chemistry Laboratory

SCOTCAT Credits:	10	SCQF Level 9	**Semester:**	1
Planned timetable:	9.00 am - 1.00 pm Mon to Fri (Weeks 7-10)			

This module comprises practical experiments involving physical measurements and the use of computational programmes in Chemistry.

Programme module type:	Compulsory for MSc in Geochemistry (unless BSc Chemistry is already held)
	Optional for Chemical Science MSc
Learning and teaching methods and delivery:	**Weekly contact**: Daily 4-hour morning practical classes over 4 weeks (Weeks 7 - 10).
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof M Buck
Module teaching staff:	Prof P A Wright, Prof M Buck, Dr R Schaub, Dr T van Mourik, Prof M Buehl

Compulsory modules - Semester 2:

ES5010 Advanced Geochemistry

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Many of the environmental challenges facing society revolve around the cycling of natural materials between fluid and solid phases. Some of the most fundamental aspects of Earth System development are investigated through geochemical methodologies that characterise and interrogate processes operating at the interface between the solid Earth and the fluid Earth. Further, the processes that concentrate many natural resources are a result of fluid-solid interactions that can be studied using organic and aqueous geochemistry. This module focuses on training in the state-of-the art techniques and methodologies that are tools that can be applied widely to address questions about environmental changes and chemistry in sediments and natural waters and, as well as utilisation and exploitation of hydrocarbon resources and Earth System evolution through time.

Programme module type:	Compulsory for MSc in Geochemistry
	Optional for Oil and Gas Innovation
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture (x 10 weeks) 5 x 3-hour practical sessions and 1 x 8-hour session of project presentations over the semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Stüeken
Module teaching staff:	Prof D Mark and Dr T Raub

ES5050 Earth's Greatest Hits

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	Lectures: 11.00 am - 12.00 noon Thu, Seminars: 10.00 am - 1.00 pm Wed			

This module is based around current "hot topics" in Earth science research. It will introduce cutting-edge science questions about how our planet has evolved from a ball of molten rock to the habitable blue planet it is today, and some of the major changes in its chemistry, biosphere, and climate that have happened along the way. Topics will vary from year to year, depending on staff participating in the module and the advances in Earth science research.

This module is research-led, requiring that you read, digest, and discuss a number of topical papers each week. For some of these topics there is no given answer; instead you gain an in-depth understanding of the current state of research. Topics are introduced in lectures and then discussion seminars, organised around student presentations, are designed to encourage debate and critique of the arguments presented in the research papers.

Programme module type:	Compulsory for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 7 hours of lectures and 21 hours of seminars over the semester.
Assessment pattern:	Coursework (10% participation in discussion groups; 60% oral presentations; 30% review paper) = 100%
Module coordinator:	Dr J Rae
Module teaching staff:	Earth & Environmental Sciences academic and research staff

ES5051 Geochemistry Field Excursion

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	2 weeks of field work and post-trip analysis in April			

Field sampling and laboratory analysis of natural samples are in important part of a geochemists' toolkit. This module will introduce the skills necessary for planning and executing a successful field campaign, developing best practice field skills in documenting the geological and environmental controls on a geochemical problem, and how to select and take samples. These will be analysed using the laboratory facilities available in the Department of Earth and Environmental Sciences and a scientific report will be written based on the methods used and results generated. The costs associated with this module are partially supported by the Department.

Programme module type:	Compulsory for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures/seminars (x 5 weeks) 40-hour field trip, 4 hours of introductory sessions
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Claire
Module teaching staff:	Dr M Claire, Dr J Cloutier, Dr A Zerkle

Optional modules - Semester 1:

ES5011 Water in the Environment

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The ability of current and future generations to understand, and predict water quality and quantity requires a solid understanding of the hydrological cycling of water, the interactions between surface and ground water reservoirs, the transport of dissolved components and water quality remediation methods. This module provides the theoretical background to surface and subsurface fluid flow and to the geochemical reactions occurring between water, soils, and sediments. Pollutant transport, bioavailability of elements, toxicity and metal and radionuclide transport will be covered within the aqueous geochemistry part of the module. This module provides a combination of the underpinning theory (fluid flow and contaminant transport) with the applied analytical tools required to better understand and ameliorate problems of water in the environment. The module assessment will include numerical modelling of a real contaminated groundwater system.

Programme module type:	Optional for MSc in Geochemistry
Pre-requisite(s):	Relevant background in chemistry
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures, 6 hours of laboratory work and 4 hours of tutorials over the semester.
Assessment pattern:	2-hour Written Examination = 40%, Coursework (including Technical Brief, Media Interview and Qualitative analysis exercise) = 60%
Module coordinator:	Dr N Allison
Module teaching staff:	Dr N Allison

ES5013 Advanced Petrogenesis

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon and Tue (lectures). 10.00 - 1.00 pm Wed or Fri (practicals)			

The Earth's crust is largely created by acid and basic magmatism and many of the planet's critical resources are formed from igneous processes. The module explores the nature of that magmatism, the petrography and geochemistry of the minerals and rocks created, and the petrogenesis and evolution of the magma. The petrological characteristics of the continental crust and of the upper mantle, the principal sources of acid and basic magmas, are examined in detail for the influence which these have on the magmas created by partial melting. The economic significance of alkaline rocks as the hosts for many of the world's critical metals is considered.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 18 lectures, 15 hours of laboratory work, 18 hours of field-related study over the semester
Assessment pattern:	2-hour Written Examination = 50%, 3-hour Practical Examination = 50%
Module coordinator:	Prof A Finch
Module teaching staff:	Prof A Finch and Dr S Mikhail

ES5300 Magmatic-related Ore Deposits

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

The module focuses on the geodynamic setting, age, geometry, and mineralogy of the principal metallic mineral deposits related to magmatic processes. The different deposit types are studied using a holistic (geology, structural, geochemistry, and geophysics) mineral system approach. Current genetic models of ore deposits related to magmatic processes are reviewed with an emphasis on the geological processes required to create them. Finally, a roadmap to mineral exploration for each type of ore deposit is discussed. Deposit types discussed include magmatic Ni-Cu, magmatic PGE-Cr, porphyry, epithermal, skarn, Rare Earth Element (REE) and iron oxide copper gold (IOCG). Laboratory exercises involve geological problem solving using a mineral exploration industry focus involving the examination of geological maps and representative suites of samples (thin sections and hand samples) from different types of metallic mineral deposits.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for MSc in Geochemistry
Anti-requisite(s):	ES5006
Learning and teaching methods and delivery:	**Weekly contact**: 2 x 1-hour lectures (22 hours over 10 weeks), 3 x 1-hour seminars (x 2 weeks); 3-hour practical classes (x 4 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Practical Examination = 25%, Coursework = 25%
Module coordinator:	Dr J Cloutier
Module teaching staff:	Dr J Cloutier and Prof A Finch

ES5301 Mineral Exploration

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

The purpose of this module is to learn basic concepts of mineral exploration that are used by the mineral exploration industry. The module is divided into three sections each focusing on different aspect of mineral exploration. Section 1 focuses on geochemical methods, section 2 on hyperspectral methods, and section 3 on geophysical methods. Each section discusses the theoretical background necessary to understand the different methods and introduces the different available analytical techniques, and highlights effective data acquisition. Finally, interpretation and application of datasets related to each method is conducted as practical exercises.

Programme module type:	Compulsory for MSc in Mineral Resources
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks), 1 practical (x 2 weeks), 1 fieldtrip (x 1 week)
Assessment pattern:	2-hour Practical Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Cloutier
Module teaching staff:	Dr J Cloutier, Dr R Bates

CH5511 Homogeneous Catalysis

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module discusses the use of metal based systems in organic transformations and a detailed treatment of homogeneous catalysis. Important processes in the petrochemicals industry will be used to exemplify the principles described.

Programme module type:	Compulsory for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil.
	Optional for MSc in Geochemistry.
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	TBC
Module teaching staff:	Prof R P Tooze, Prof D Cole-Hamilton

CH5716 Processing of Materials

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module focuses on the processing of materials. Fundamental materials properties such as crystallinity, composition, crystal phase, phase mixing, domain structure, grains and grain boundaries, porosity and pore structure will be covered and the main methods used to control these properties in order to develop and improve materials for specific applications will be addressed. Processes including casting, extrusion, physical and chemical vapour deposition, calcination, sintering, annealing, plasma treatments, mechanical working, crystallisation and dopant addition will be described and explained. Applications in high-value metals, ceramics and semiconductor materials will be emphasised.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof J T S Irvine
Module teaching staff:	Prof J T S Irvine, Dr M Cassidy

Optional modules - Semester 2:

ES5012 Biogeochemistry

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Earth's surface environment is tightly regulated by biogeochemical processes. The biosphere directly influences the composition of Earth's atmosphere, ocean chemistry, and global climate, through the cycling of nutrients and other elements. This module will examine the role of biogeochemical processes in controlling Earth surface chemistry, and their possible influence on deep Earth reservoirs. Emphasis will be placed on feedbacks between the geosphere, atmosphere, and biosphere over geologic time, and how these interactions have both contributed and responded to important transitions in Earth history (e.g., the Great Oxidation Event, global glaciations). We will also highlight current geochemical (e.g., stable isotope ratios) and numerical (e.g., modelling) techniques used to constrain these interactions in both modern and ancient (rock record) systems.

Programme module type:	Optional for MSc in Geochemistry and MSc in Oil and Gas Innovation
Pre-requisite(s):	Normally ES3008
Learning and teaching methods and delivery:	**Weekly contact**: 2 x 1-hour lectures and 3-hour practical sessions.
Assessment pattern:	2-hour Written Examination = 40%, Coursework (including modelling exercises, literature review and project) = 60%
Module coordinator:	Dr A Zerkle
Module teaching staff:	Dr A Zerkle, Dr M Claire, Dr S Mikhail

ES5302 Hydrothermal Ore Deposits

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The module focuses on the geodynamic setting, age, geometry, and mineralogy of the principal metallic mineral deposits related to hydrothermal processes. The different deposit types are studied using a holistic (geology, structural, geochemistry, and geophysics) mineral system approach. Current genetic models of ore deposits related to hydrothermal processes are reviewed with an emphasis on the geological processes required to create them. Finally, a roadmap to mineral exploration for each type of ore deposit taught is discussed. Deposit type discussed in the module includes orogenic gold, VMS, SEDEX, Mississippi Valley-type, unconformity-related uranium deposits, and sedimentary-hosted stratiform copper deposits. Laboratory exercises involve geological problem solving using a mineral exploration industry focus involving the examination of geological maps and representative suites of samples (thin sections and hand samples) from different types of metallic mineral deposits.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 practical (x 3 weeks), 1 field trip
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Cloutier
Module teaching staff:	Dr J Cloutier

CH5517 Advanced Physical Inorganic Chemistry

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module involves distinct sections on photophysics of coordination complexes including theory and applications, and inorganic 'open shell' compounds including synthesis, characterisation and applications of paramagnetic inorganic species.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr E Zysman-Colman
Module teaching staff:	Dr E Zysman-Colman, Dr B Bode

CH5518 Blockbuster Solids

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module covers two major topics. The first deals with modern materials which have a major impact on our lives, focusing on how the material's structure influences its electrical, magnetic and thermal properties. In the second section, emphasis will be placed on metal organic frameworks and how they can be used for the storage and release of gases.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof P Lightfoot
Module teaching staff:	Prof P Lightfoot, Prof R E Morris

CH5715 Energy Conversion and Storage

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

In our efforts to mitigate global warming it is essential to develop new and improved methods of generation and storage of energy. Foremost among these methods are the electrochemical technologies of batteries and fuel cells. In this module we will discuss the technical details and applications of such devices. Particular emphasis will be placed on the underlying electrochemistry and materials chemistry.

Programme module type:	Optional for MSc in Catalysis
	Optional for MSc in Chemical Science and Chemistry MPhil
	Optional for MSc in Geochemistry
Anti-requisite(s):	CH4712
Learning and teaching methods and delivery:	**Weekly contact**: 2 - 3 lectures per week over 9 - 10 weeks (within Weeks 1-11) and 2 - 3 tutorials in total.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr R T Baker
Module teaching staff:	Dr R T Baker, Prof J T S Irvine

Compulsory module - Summer:

ES5099 Research Project

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			

This module provides an opportunity to conduct independent research with an academic supervisor, usually within a research group. The research topic is defined by the student and can be chosen from research foci within the School. The research project will involve project formulation, a background literature review, proposal writing, and analytical design, as well as data integration and interpretation. The results are presented as oral presentations, as a poster as part of a conference, and in a dissertation.

Programme module type:	Compulsory for MSc in Geochemistry and MSc in Mineral Resources
Learning and teaching methods and delivery:	**Weekly contact**: introductory lectures, presentations and superviosry meetings.
Assessment pattern:	Coursework (10,000 word dissertation + other elements) = 100%
Module coordinator:	Dr P Savage and Dr J Cloutier

Master of Science Mineral Resources

Programme Requirements

Mineral Resources - MSc
ES5303 (15 credits) **and** ES5304 (15 credits) **and** ES5300 (15 credits) **and** ES5301 (15 credits) **and** ES5013 (30 credits) **and** ES5302 (15 credits) **and** ES5009 (15 credits) **and** ES3003 (15 credits) **and** ES5099 (60 credits) If students have prior experience of the above modules, the following are suitable substitutes: ES3004 – Sedimentology and Stratigraphy ES3007 – Structure and Tectonics ES4007 – Petroleum Exploration and Geophysics ES5005 – Isotope Geochemistry ES5010 – Advanced Geochemistry

Compulsory modules:	ES5099 Research Project			
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	To be arranged.			
This module provides an opportunity to conduct independent research with an academic supervisor, usually within a research group. The research topic is defined by the student and can be chosen from research foci within the School. The research project will involve project formulation, a background literature review, proposal writing, and analytical design, as well as data integration and interpretation. The results are presented as oral presentations, as a poster as part of a conference, and in a dissertation.				
Programme module type:	Compulsory for MSc in Geochemistry and MSc in Mineral Resources			
Learning and teaching methods and delivery:	**Weekly contact**: introductory lectures, presentations and superviosry meetings.			
Assessment pattern:	Coursework (10,000 word dissertation + other elements) = 100%			
Module coordinator:	Dr P Savage and Dr J Cloutier			

ES3003 GIS and Spatial Analysis for Earth Scientists				
SCOTCAT Credits:	15	SCQF Level 9	**Semester:**	2
Planned timetable:	10.00 am - 1.00 pm Mon, Wed (lecture plus lab session) (Weeks 1 - 7)			
This module covers the principles behind, and practical application of, spatial analysis in Earth Sciences. This includes the analysis of primary and secondary datasets, how to access and import a variety of data types, and the fundamentals of various spatial analytical methods including spatial statistics and modeling within a GIS environment. The module also prepares students for the correct presentation of maps and datasets in the dissertation proposal and thesis.				
Programme module type:	Compulsory for MSc in Mineral Resources			
Learning and teaching methods and delivery:	**Weekly contact**: 6 lectures and 14 practicals and support sessions (Weeks 1 - 7).			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr C Bates			
Module teaching staff:	Dr C Bates			

ES5009 Geodynamics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 10.00 am Tue and Wed; 9.00 am - 5.00 pm Fri (Weeks 2,5,9)			

A study of the geodynamic evolution of Earth's crust since the Archaean, the evolution of convergent and divergent margins, and the relationships between tectonics, erosion and climate. The module contrasts geodynamic evolution in the Archaean, Proterozoic, Palaeozoic, Mesozoic and Cenozoic using a number of case studies, including examples visited in the field. The module develops skills of geodynamic interpretation, field observation, use of numerical models, report writing and oral presentation.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for MSc in Geochemistry Optional for MSc in Oil and Gas Innovation
Learning and teaching methods and delivery:	**Weekly contact**: 2 x 1-hour lectures(x 11 weeks) , plus 2 extended laboratory classes, and 2 days in the field during the semester.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr R White
Module teaching staff:	Dr T Raub, Dr R White

ES5013 Advanced Petrogenesis

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon and Tue (lectures). 10.00 - 1.00 pm Wed or Fri (practicals)			

The Earth's crust is largely created by acid and basic magmatism and many of the planet's critical resources are formed from igneous processes. The module explores the nature of that magmatism, the petrography and geochemistry of the minerals and rocks created, and the petrogenesis and evolution of the magma. The petrological characteristics of the continental crust and of the upper mantle, the principal sources of acid and basic magmas, are examined in detail for the influence which these have on the magmas created by partial melting. The economic significance of alkaline rocks as the hosts for many of the world's critical metals is considered.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for MSc in Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 18 lectures, 15 hours of laboratory work, 18 hours of field-related study over the semester
Assessment pattern:	2-hour Written Examination = 50%, 3-hour Practical Examination = 50%
Module coordinator:	Prof A Finch
Module teaching staff:	Prof A Finch and Dr S Mikhail

ES5300 Magmatic-related Ore Deposits

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The module focuses on the geodynamic setting, age, geometry, and mineralogy of the principal metallic mineral deposits related to magmatic processes. The different deposit types are studied using a holistic (geology, structural, geochemistry, and geophysics) mineral system approach. Current genetic models of ore deposits related to magmatic processes are reviewed with an emphasis on the geological processes required to create them. Finally, a roadmap to mineral exploration for each type of ore deposit is discussed. Deposit types discussed include magmatic Ni-Cu, magmatic PGE-Cr, porphyry, epithermal, skarn, Rare Earth Element (REE) and iron oxide copper gold (IOCG). Laboratory exercises involve geological problem solving using a mineral exploration industry focus involving the examination of geological maps and representative suites of samples (thin sections and hand samples) from different types of metallic mineral deposits.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for MSc in Geochemistry
Anti-requisite(s):	ES5006
Learning and teaching methods and delivery:	**Weekly contact**: 2 x 1-hour lectures (22 hours over 10 weeks), 3 x 1-hour seminars (x 2 weeks); 3-hour practical classes (x 4 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Practical Examination = 25%, Coursework = 25%
Module coordinator:	Dr J Cloutier
Module teaching staff:	Dr J Cloutier and Prof A Finch

ES5301 Mineral Exploration

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The purpose of this module is to learn basic concepts of mineral exploration that are used by the mineral exploration industry. The module is divided into three sections each focusing on different aspect of mineral exploration. Section 1 focuses on geochemical methods, section 2 on hyperspectral methods, and section 3 on geophysical methods. Each section discusses the theoretical background necessary to understand the different methods and introduces the different available analytical techniques, and highlights effective data acquisition. Finally, interpretation and application of datasets related to each method is conducted as practical exercises.

Programme module type:	Compulsory for MSc in Mineral Resources
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 10 weeks), 1 practical (x 2 weeks), 1 fieldtrip (x 1 week)
Assessment pattern:	2-hour Practical Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Cloutier
Module teaching staff:	Dr J Cloutier, Dr R Bates

ES5302 Hydrothermal Ore Deposits

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The module focuses on the geodynamic setting, age, geometry, and mineralogy of the principal metallic mineral deposits related to hydrothermal processes. The different deposit types are studied using a holistic (geology, structural, geochemistry, and geophysics) mineral system approach. Current genetic models of ore deposits related to hydrothermal processes are reviewed with an emphasis on the geological processes required to create them. Finally, a roadmap to mineral exploration for each type of ore deposit taught is discussed. Deposit type discussed in the module includes orogenic gold, VMS, SEDEX, Mississippi Valley-type, unconformity-related uranium deposits, and sedimentary-hosted stratiform copper deposits. Laboratory exercises involve geological problem solving using a mineral exploration industry focus involving the examination of geological maps and representative suites of samples (thin sections and hand samples) from different types of metallic mineral deposits.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for Geochemistry
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (x 11 weeks), 1 practical (x 3 weeks), 1 field trip
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Cloutier
Module teaching staff:	Dr J Cloutier

ES5303 Applied Geological Mapping

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module aims to train students in applied geological field skills. The module focuses on creating and interpreting surface and underground maps, and drill core logs. Module assessment is based on the quality of field notebooks, maps, logs, and group participation. All travel and accommodation costs associated with the field work are provided by the School of Earth and Environmental Sciences.

Programme module type:	Compulsory for MSc in Mineral Resources
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of lectures (x 3 weeks), 12 hours of practicals (x 2 weeks) and 17.5 hours of fieldwork (x 4 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr W McCarthy
Module teaching staff:	Dr J Cloutier, Dr W McCarthy, Dr T Prave

ES5304 3D Geological Modelling

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module aims to familiarise students with three-dimensional geological modelling using the industry-standard pieces of software. The module emphasises the creation, validation and interpretation of geological and structural models, as well as their use in mineral exploration and mineral resource estimation. Module assessment is based on the quality of three-dimensional models created and group participation.

Programme module type:	Compulsory for MSc in Mineral Resources
Learning and teaching methods and delivery:	**Weekly contact**: 3 hours of lectures (x 5 weeks), 3 hours of practical classes (x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Cloutier
Module teaching staff:	Dr J Cloutier, Dr R Bates

Master of Science in Oil and Gas Innovation

Programme Requirements

Oil and Gas Innovation - MSc
ES5201 (15 credits) **and**   15 credits from Module List: ES3008, ES4007, ES5005, ES5009 - ES5010, ES5012 **and**   ES5299 (120 credits)   **Students must also take the following modules that are not delivered by St Andrews:**   Commercialising Innovation - 15 credits.   Entrepreneurial Leadership - 5 Credits.   Finance and Pitching for funding for a New Venture - 5 Credits.   Product Development - 5 Credits

Compulsory modules:

ES5201 Project Scoping				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
The module prepares students for the Oil and Gas Innovation project, by scoping a project informed by literature and market research, and in interaction with the academic supervisor and, where applicable, an industry partner. The aims of the module are to build the knowledge and understanding that allows an innovation opportunity to be identified with supporting literature review and market research, and to develop the intellectual skills required to design a project plan that will be undertaken in the Oil and Gas Innovation Project.				
Programme module type:	Compulsory for MSc in Oil and Gas innovation			
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour (x 10 weeks) with 14 hours of project scoping events and 4 hours of project plan review sessions.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr R Bates and Dr T Raub			
Module teaching staff:	Earth & Environmental Sciences staff			

ES5299 Project in Oil and Gas Innovation

SCOTCAT Credits:	120	SCQF Level 11	Semester:	2
Planned timetable:	Supervisor meetings: 1 per week for 25 weeks			

The module involves independent research on an Oil and Gas Innovation opportunity, which has been designed and approved during the Project Scoping module (ES5101). The independent project offers students the opportunity to apply the knowledge acquired during the taught components of the course and to deepen this knowledge by executing an Oil and Gas Innovation project and delivering a formal report. The work requires reference to, and integration of, the various taught elements, independent research (data collection, analysis, interpretation), together with a general knowledge of all aspects of innovation (including political, economic, social, technological, environmental and legal factors). Normally projects will involve working with an industry partner, and students may be based in industry for. Supervision will include a primary and secondary academic supervisor and an industry supervisor (when relevant).

Programme module type:	Compulsory for MSc in Oil and Gas Innovation
Pre-requisite(s):	ES5201
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour a week for 25 weeks.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr R Bates and Dr T Raub
Module teaching staff:	Earth and Environmental Sciences staff

Optional modules (offered by St Andrews):

ES3008 Geochemistry

SCOTCAT Credits:	15	SCQF Level 9	Semester:	1
Planned timetable:	10.00 am Tue and Thu (lectures), 2.00 - 5.00 Fri (practicals)			

This module provides an introduction to geochemistry: the study of the abundance, distribution and circulation of the chemical elements in minerals, rocks, soils, water and the atmosphere. Geochemical tools are a powerful means to the study of geological, economic, and environmental problems.

 In the module we study the origin and distribution of the chemical elements in the Earth and solar system and review thermodynamics and kinetics as applied to Earth systems. We apply thermodynamics to make quantitative predictions regarding the outcome of chemical reactions associated with geological processes. We consider the behaviour of elements, mainly in low temperature environments. Material covered includes aqueous geochemistry and mineral precipitation and dissolution. We utilise geochemical tools to constrain changes in earth processes and climate, and to predict the impact of future change.

Programme module type:	Normally compulsory for Geochemistry Postgraduate Programmes (in some circumstances ES3011 may be substituted). Optional for MSc in Oil and Gas Innovation
Learning and teaching methods and delivery:	**Weekly contact**: 17 lectures, 15 hours of laboratory classes, 2 or more field classes over the semester.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr N Allison
Module teaching staff:	Dr N Allison, Prof A Finch, Dr J Rae, Dr P Savage

ES4007 Petroleum Exploration and Geophysics

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Thu (lectures), 2.00 - 5.00 pm Thu (practicals)			

The fundamental concepts, techniques and practices of the hydrocarbon exploration industry are presented. Students will gain a thorough understanding of the geoscience of petroleum exploration, particularly using geophysical methods, and a working knowledge of modern concepts in oil and gas geology.

Programme module type:	Optional for MSc in Oil and Gas Innovation, Optional substitution for ES3003 for MSc in MIneral Resources
Learning and teaching methods and delivery:	**Weekly contact**: 17 lectures, 15 hours laboratory classes, field classes over the semester.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr R Bates
Module teaching staff:	Dr R Bates

ES5005 Isotope Geochemistry: Theory, Techniques, and Applications

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

Isotope geochemistry has grown over the last 50 years to become one of the most important fields in the Earth sciences. The growth in the importance of isotope geochemistry reflects its remarkable success in solving fundamental problems in mantle formation, ore genesis, hydrology, hydrocarbon formation, crustal evolution, planetary formation, geochemical cycles, hydrothermal circulation, ocean circulation, and climate and environmental change. In this module, we will explore the theory of isotopes and their fractionation, including kinetic, equilibrium, and Rayleigh fractionation. We will also learn how isotope measurements are made, with an introduction to mass spectrometry methods, techniques, and analysis. The latter half of the course will be devoted to case studies and applications of isotopes to interesting problems across Earth Sciences including the evolution of the atmosphere, the formation of the solar system and planets, and climate and carbon cycle reconstructions. These case studies will introduce concepts such as clumped isotopes, isotope mass balance, mass independent fractionation, and radionuclide disequilibria.

Programme module type:	Compulsory for MSc in Geochemistry Optional for MSc in Oil and Gas Innovation
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures (x 10 weeks), 3-hour practical sessions (x 3 weeks)
Assessment pattern:	2-hour Practical (Open Book) Examination = 50%, Coursework = 50%
Module coordinator:	Dr A Burke
Module teaching staff:	Dr A Burke, Dr P Savage

ES5009 Geodynamics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 10.00 am Tue and Wed; 9.00 am - 5.00 pm Fri (Weeks 2,5,9)			

A study of the geodynamic evolution of Earth's crust since the Archaean, the evolution of convergent and divergent margins, and the relationships between tectonics, erosion and climate. The module contrasts geodynamic evolution in the Archaean, Proterozoic, Palaeozoic, Mesozoic and Cenozoic using a number of case studies, including examples visited in the field. The module develops skills of geodynamic interpretation, field observation, use of numerical models, report writing and oral presentation.

Programme module type:	Compulsory for MSc in Mineral Resources Optional for MSc in Geochemistry Optional for MSc in Oil and Gas Innovation
Learning and teaching methods and delivery:	**Weekly contact**: 2 x 1-hour lectures(x 11 weeks) , plus 2 extended laboratory classes, and 2 days in the field during the semester.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr R White
Module teaching staff:	Dr T Raub, Dr R White

ES5010 Advanced Geochemistry

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Many of the environmental challenges facing society revolve around the cycling of natural materials between fluid and solid phases. Some of the most fundamental aspects of Earth System development are investigated through geochemical methodologies that characterise and interrogate processes operating at the interface between the solid Earth and the fluid Earth. Further, the processes that concentrate many natural resources are a result of fluid-solid interactions that can be studied using organic and aqueous geochemistry. This module focuses on training in the state-of-the art techniques and methodologies that are tools that can be applied widely to address questions about environmental changes and chemistry in sediments and natural waters and, as well as utilisation and exploitation of hydrocarbon resources and Earth System evolution through time.

Programme module type:	Compulsory for MSc in Geochemistry Optional for Oil and Gas Innovation
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture (x 10 weeks) 5 x 3-hour practical sessions and 1 x 8-hour session of project presentations over the semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Stüeken
Module teaching staff:	Prof D Mark and Dr T Raub

ES5012 Biogeochemistry

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

Planned timetable:	To be arranged.

Earth's surface environment is tightly regulated by biogeochemical processes. The biosphere directly influences the composition of Earth's atmosphere, ocean chemistry, and global climate, through the cycling of nutrients and other elements. This module will examine the role of biogeochemical processes in controlling Earth surface chemistry, and their possible influence on deep Earth reservoirs. Emphasis will be placed on feedbacks between the geosphere, atmosphere, and biosphere over geologic time, and how these interactions have both contributed and responded to important transitions in Earth history (e.g., the Great Oxidation Event, global glaciations). We will also highlight current geochemical (e.g., stable isotope ratios) and numerical (e.g., modelling) techniques used to constrain these interactions in both modern and ancient (rock record) systems.

Programme module type:	Optional for MSc in Geochemistry and MSc in Oil and Gas Innovation
Pre-requisite(s):	Normally ES3008
Learning and teaching methods and delivery:	**Weekly contact**: 2 x 1-hour lectures and 3-hour practical sessions.
Assessment pattern:	2-hour Written Examination = 40%, Coursework (including modelling exercises, literature review and project) = 60%
Module coordinator:	Dr A Zerkle
Module teaching staff:	Dr A Zerkle, Dr M Claire, Dr S Mikhail

School of Economics & Finance

Taught Programmes

Postgraduate Diploma:
(this is also the Taught element of the MLitt and MPhil programme):

Economics
Finance
Finance and Economics
Money, Banking and Finance

MSc:
Economics
Finance
Finance and Economics
Money, Banking and Finance

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Masters in Economics

Programme Requirements

Economics - MSc
60 credits from Module List: EC5201 - EC5203 **and** 60 credits from Module List: EC5204-5227, EC5605, EC5606, EC5608 EC5610-EC5611, EC5722, EC4403, EC4407, EC4408, EC4411, EC4413-EC4414, EC4416, EC4425 **and** EC5299 (60 credits) Other 4000-level modules may be taken with the permission of the programme director. **Of the 120 credits in taught modules**, a minimum of 100 credits must be in 5000-level modules

Compulsory modules:

EC5201 Macroeconomics				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The module will provide a thorough advanced treatment of the core models and concepts used in modern macroeconomics; for example the infinite horison Ramsey model and finite horizon overlapping generations model and models that have been used to characterise short term fluctuations, such as the real business cycle approach and the New Keynesian approach. Among other things, the module will seek to explain the development of microbased macroeconomic theory, use models to predict the impact of policy changes on endogenous variables and critique modelling assumptions, especially in the context of policy analysis. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module, supplementary lectures will be given on the relevant mathematical methods.

Programme module type:	Compulsory for MSc in Economics Either EC5201 or EC5202 is compulsory for MSc in Finance and Economics
Anti-requisite(s):	EC5801
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr O Senay

EC5202 Microeconomics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will provide a thorough advanced treatment of the core models and concepts used in modern microeconomics. Microeconomic theory is concerned with the behaviour of individual economic actors (e.g. firms, consumers) and the aggregation of their actions in different institutional frameworks (e.g. markets), and models economic activity as an interaction of individual economic agents pursuing their private interests. Students will be presented with a set of concepts and mathematical techniques which will enable them to achieve a better understanding of economic activity and outcomes. This involves an understanding of how microeconomic models are built, focusing on their objective in terms of the phenomenon they are meant to explain, and the consequences of their assumptions in terms of the applicability of their predictions. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module,supplementary lectures will be given on the relevant mathematical methods.

Programme module type:	Compulsory for MSc in Economics
	Either EC5201 or EC5202 is compulsory for MSc In Finance and Economics
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr K Ozbek

EC5203 Econometric Methods and Applications

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will provide an advanced level training in aspects of econometric methods that is suitable for the basis for further work in econometrics and for understanding/being able to extract econometric techniques in published articles. The course will also give students the basis to support an empirical section in their MSc dissertation. Students are expected to have intermediate- level knowledge of matrix algebra, calculus and statistics. Before commencement of the module,supplementary lectures will be given on the relevant mathematical and statistical methods.

Programme module type:	Compulsory for MSc in Economics and for MSc in Finance and Economics		
Anti-requisite(s):	EC5609	**Required for:**	EC5221
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 8 weeks), 2-hour computing labs (x 2 weeks) plus 1 office hour (x 12 weeks)		
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Dr I Merkurieva		

EC5299 Dissertation in Economics				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation of a topic relevant and appropriate to the MSc. The dissertation takes the form of a substantially extended theoretical, analytical or empirical essay. The word limit for the dissertation is 15,000. The lecture part of the module will train students' skills in framing a research hypothesis, conducting bibliographic research, writing a literature survey, and structuring a research paper.				
Programme module type:	Compulsory for MSc in Economics.			
Learning and teaching methods and delivery:	**Weekly contact**: 5 lectures. Preparatory meeting and at least one supervisory meeting per month during the research period.			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Dr S Braun			

Optional modules:

EC5220 Game Theory				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module will provide a thorough advanced treatment of the core models and concepts used in modern game theory. Many serious things in life are games. Game theory is a set of formal techniques used to study situations of strategic interaction. These are situations where the reward obtained by each member of a group (e.g. firms, political parties, students) depends not only on the decision made by that member, but also on the decisions made by everybody else; and, in addition, everybody is aware of this interdependence. The methods of game theory are widely used in contemporary economics. An acquaintance with them is essential to the accomplished economist. In fact, game theory provides a unified language to address a spectrum of problems which is not limited to economics. Topics covered will include: strategic games; mixed strategy equilibria; extensive form games (with perfect information); bargaining games; repeated games; games of incomplete information; implementation theory; and bounded rationality. Students are expected to have a strong undergraduate level training in microeconomics and relevant mathematical and statistical techniques.				
Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, and MSc in Money, Banking and Finance.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.			
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%			
Module coordinator:	Dr L Bridet			

EC5221 Econometric Time Series Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will provide a thorough advanced treatment of the core theory and practice of time series econometrics. It examines the models and statistical techniques used to study time series data in economics. The first objective is to lay out the econometric theory of time series analysis and the second is to equip students who will use time series data or methods in their future Ph.D. research with some of the tools they will need. Students are expected to have intermediate- level knowledge of matrix algebra, calculus and statistics.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5203
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof R McCrorie
Module teaching staff:	Prof R McCrorie, Dr K Petrova

EC5225 Experimental Economics and FInance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will start by exposing students to the methodology of experimental economics and finance. It will then review stylised facts and recent developments of its use to address various research questions in economics and finance. The rise of the use of experimental methods in economics and finance has created a useful dialogue between theoretical and laboratory-based empirical work. Typically, this process occurs as follows: experimental economists use human participants to test the behavioural implications of theoretical models in the laboratory; the new empirical evidence collected in the laboratory then suggests new venues for the development of novel theoretical models. This cycle then repeats itself. In this module we will sometimes consider such interplay between the development of theoretical models and the collection of empirical evidence in the laboratory.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance, and MSc in Money, Banking and Finance.
Pre-requisite(s):	Admission to MSc Economics or a strong undergraduate training in microeconomics and relevant mathematical and statistical techniques.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	3-hour Written Examination = 75%, Coursework (1,500-word Technical Essay) = 25%
Module coordinator:	Prof M Costa-Gomes

EC5227 Behavioural Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Traditionally, Financial Economics assumes that investors and other market participants are perfectly rational. While this is a good first approximation, we currently know there are a number of systematic biases in people's behaviour. The goal of this module is to discuss how these biases affect financial markets and investors' decisions. We will start with describing the most relevant deviations (such as overconfidence, representativeness and others), and we will continue with various financial applications. We will talk about bubbles, herding, and implications for corporate decisions and investors' behaviour.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance,
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 office hour (x 12 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl Class Test, 25%) = 50%
Module coordinator:	Dr M C Iannino

EC5605 Monetary Policy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will cover key issues in monetary policy. Topics will include: the case for price stability; time inconsistency and policy; the trade-off between inflation bias and output stabilisation; unconventional monetary policies; inflation targeting and other monetary frameworks; and the conduct of monetary policy in leading countries.

Programme module type:	Compulsory for MSc in Money, Banking and Finance.
	Optional for MSc in Economics, and MSc in Finance and Economics.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, tutorial (fortnightly)
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Ozhan

EC5606 Corporate Governance and Risk

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Three key components: (1) corporate governance; (2) risk management; and (3) financial management. Detailed content may vary year by year, but typically would include: mergers, takeovers, corporate control, governance, financial architecture, risk capital; risk in corporate and international settings; market consequences of managerial behaviour; corporate governance in family firms; financial distress and bankruptcy resolution.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 1 tutorial.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M La Manna

EC5608 Financial Intermediation

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will cover the main theoretical issues involved in financial intermediation, from the existence of banks through credit rationing and optimal contracts to bank runs, central banks and regulation. The module will concentrate on analytical models, but there will be some reference to current issues in existing financial systems.

Programme module type:	Compulsory for MSc in Money, Banking and Finance.
	Optional for MSc in Economics, MSc in Finance, and MSc in Finance and Economics.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorial (fortnightly).
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Ozhan

EC5611 Portfolio Theory and Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module aims to develop students' knowledge and understanding of key issues in asset allocation and portfolio composition/management at an advanced level. Moreover it aims to provide students with the opportunity to develop their ability to critically understand current theoretical and empirical research in the field of portfolio management and the implications of such research into alternative portfolio composition and management strategies.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance and MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	2-hour Written Examination = 70%, Coursework = 30%
Module coordinator:	I Psaradellis

EC5722 Risk Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides the student with an introduction to standard techniques in risk and insurance. The implementation of sound quantitative risk models to assess and insure against risk is a vital concern for all financial institutions. The module provides a comprehensive treatment of the theoretical concepts and modelling techniques of quantitative risk management. It provides students with practical tools to solve real world problems, in the context of portfolio management and credit risk. A major theme underlying all topics is the importance of ambiguity, especially regarding partial knowledge of asset distributions and investor preferences. Throughout we will relate the class discussion to current economic conditions.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Zhang

EC4403 Health and Education

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module explores economic perspectives on health and education. After introducing human capital theory, we will use this lens to examine the decision to invest in schooling and review empirical estimates of the returns to education. We will also consider policy interventions to improve education. In the second part of the course we will study the demand and supply of health services, paying particular attention to the issues surrounding public and private health insurance. We will also discuss public intervention directed at health behaviours. The module will conclude by examining the joint production of health and education, with a focus on early childhood.

Programme module type:	Optional for MSc in Finance and Economics, MSc In Economics
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 15 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Dr M Leighton

EC4407 Behavioural Economics

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

Behavioural economics combines traditional neoclassical microeconomics and empirically motivated assumptions with the goal of providing a better understanding of economic behaviour and welfare in settings that range from single-person decision problems under certainty, risk or uncertainty to multi-person decision problems. The module will introduce theoretical models that deviate from the standard assumptions of rational choice in order to explain observed behavioural patterns that arise both in single-period as well as in multi-period decision problems. When relevant, policy implications/responses will also be discussed.

Programme module type:	Optional for MSc in Economics and MSc in Finance and Economics
Anti-requisite(s):	EC4507, EC4607
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Dr G Gerasimou

EC4413 European Macroeconomics

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

The purpose of the module is to explore the macroeconomic and monetary issues involved in European economic integration. After a historical introduction focused on the question of why the members of the EC/EU have sought a single market for trade and then monetary union, the module provides a thorough examination of the theory of optimum currency areas, including trade and capital market linkages; convergence; and the role of exchange rate stability (real or nominal) from a European perspective. We then investigate the monetary policy strategy of the ECB; the need for and use of fiscal policy in a currency union; the Stability Pact; fiscal federalism; the relationship between fiscal and monetary policy; and the desirability of fiscal rules to ensure financial sustainability. Finally, we will examine labour market difficulties and structural reform in the EU.

Programme module type:	Optional for MSc in Economics and MSc in Finance and Economics
Anti-requisite(s):	EC4613, EC4513
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Prof A Sutherland

EC4416 Innovation Economics

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

Innovation is both a major contributory factor in economic growth and a crucial element of competitive behaviour and policy. The aim of this module is to introduce students to recent developments in the economic theory of innovation. The module, which is analytical in nature, examines the incentives firms have to innovate by the introduction of new products and new processes and, in particular, how this is affected by strategic competitive conditions.

Programme module type:	Optional for MSc in Economics and MSc in Finance and Economics
Anti-requisite(s):	EC4503, EC4616
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Dr M La Manna

EC4425 Econometrics of Impact Evaluation

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

Evaluating the causal effects of economic policies is an important but complex and challenging task. The purpose of this module is to introduce students to the core methods for evaluating the causal effect of economic policies and to apply these methods in practice. It will expose students to the concept of causality and explain under which assumptions the causal effect of economic policies can be identified. The module will have a strong focus on applications and will emphasise problems that economists encounter in practice when evaluating economic policies. Empirical examples will deal mainly with policies in labour economics and development economics. The laboratory sessions will discuss important empirical studies in the field and will provide students with the opportunity to apply empirical methods hands-on using Stata.

Programme module type:	Optional for MSc in Economics, and MSc in Finance and Economics
Pre-requisite(s):	EC5203
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 optional office hour (x 12 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Dr S Braun

Master of Science Finance

Programme Requirements

Finance - MSc
80 credits from Module List: EC5601, EC5604, EC5609, EC5901 **and** 40 credits from Module List: EC5225 - EC5227, EC5525, EC5606, EC5608, EC5610 - EC5611, EC5722 **and** EC5699 (60 credits)

Compulsory modules:

EC5601 Investment Analysis				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module introduces the basic concepts of investment value analysis. Investments cover real economic projects such as those undertaken by corporations and governments, as well as financial investments, which are regularly priced and traded in financial markets. The ultimate aim is to provide the student with a standard approach to define, measure and predict value of investments in a world of uncertainty and asymmetric information. The tradeoff between risk and return is defined, and economic models of how risks and returns are determined and traded in financial markets are applied to solve any investment analysis problem. The valuation problems covered in this module involve corporate investments, a wide range of corporate liabilities such as shares and bonds, and associated financial contracts such as options. The module presents a standard framework to analyse agency problems that prevail in corporate financial decisions such as CEO compensation and performance assessment.

Programme module type:	Compulsory for MSc in Finance and Economics, and for MSc in Finance.
Required for:	EC5604, EC5606, EC5722
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture or 1 seminar.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M C Iannino

EC5604 Corporate Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

In this module we investigate the problem of how a collection of corporate liabilities are affected in value by corporate actions. Possible actions include corporate investment decisions, decisions regarding the firm's financial structure, changes in management rules and compensation and changes in the scope, specialisation and legal environment of the corporation's business. As in the Pre-requisite(s) module, EC5601, we emphasise standard methods for solving problems under economic uncertainty. At the end of this module the student will have a good working knowledge of institutions and the theory and valuation methods used worldwide in major corporations and financial institutions.

Programme module type:	Compulsory for MSc in Finance and Economics and for MSc in Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 1 seminar.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr V Prasad

EC5609 Financial Econometrics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will introduce the students to the theory and practice of financial econometrics. The module will begin by introducing students to the classical linear regression model and a number of issues regarding its application to real world data. The module will then develop a number of time-series techniques that can be applied to the study of financial economics. Topics covered include: the linear univariate stochastic model, multivariate models, unit root processes and co-integration. By the end of the module students should be able to undertake empirical analysis using financial data.

Programme module type:	Compulsory for MSc in Finance, and for MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week (x 9 weeks). 2 hours x 4 weeks of labs (weeks 2 or 3, 4 or 5, 7 and 9)
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Petrova

EC5901 International Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The module will cover key issues in international finance. Topics will include analyzing models of exchange rate determination, both nominal and real; and analysis of the determinants of international capital flows. The module will introduce a range of analytical models, together with a range of empirical and policy-oriented material.

Programme module type:	Compulsory for MSc in Finance, and for MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr G Mitka

EC5699 Finance Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module provides students with the opportunity to undertake an in-depth investigation of a topic relevant and appropriate to the MSc. The dissertation takes the form of a substantially extended theoretical, analytical or empirical essay. The word limit for the dissertation is 15,000. The lecture part of the module will train students' skills in framing a research hypothesis, conducting bibliographic research, writing a literature survey, and structuring a research paper.

Programme module type:	Compulsory for MSc in Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 5 lectures. Preparatory meeting and at least one supervisory meeting per month during the research period.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr S Braun

Optional modules:

EC5225 Experimental Economics and Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will start by exposing students to the methodology of experimental economics and finance. It will then review stylised facts and recent developments of its use to address various research questions in economics and finance. The rise of the use of experimental methods in economics and finance has created a useful dialogue between theoretical and laboratory-based empirical work. Typically, this process occurs as follows: experimental economists use human participants to test the behavioural implications of theoretical models in the laboratory; the new empirical evidence collected in the laboratory then suggests new venues for the development of novel theoretical models. This cycle then repeats itself. In this module we will sometimes consider such interplay between the development of theoretical models and the collection of empirical evidence in the laboratory.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance, and MSc in Money, Banking and Finance.
Pre-requisite(s):	Admission to MSc Economics or a strong undergraduate training in microeconomics and relevant mathematical and statistical techniques.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	3-hour Written Examination = 75%, Coursework (1,500-word Technical Essay) = 25%
Module coordinator:	Prof M Costa-Gomes

EC5227 Behavioural Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Traditionally, Financial Economics assumes that investors and other market participants are perfectly rational. While this is a good first approximation, we currently know there are a number of systematic biases in people's behaviour. The goal of this module is to discuss how these biases affect financial markets and investors' decisions. We will start with describing the most relevant deviations (such as overconfidence, representativeness and others), and we will continue with various financial applications. We will talk about bubbles, herding, and implications for corporate decisions and investors' behaviour.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance,
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 office hour (x 12 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl Class Test, 25%) = 50%
Module coordinator:	Dr M C Iannino

EC5606 Corporate Governance and Risk

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Three key components: (1) corporate governance; (2) risk management; and (3) financial management. Detailed content may vary year by year, but typically would include: mergers, takeovers, corporate control, governance, financial architecture, risk capital; risk in corporate and international settings; market consequences of managerial behaviour; corporate governance in family firms; financial distress and bankruptcy resolution.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 1 tutorial.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M La Manna

EC5608 Financial Intermediation

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will cover the main theoretical issues involved in financial intermediation, from the existence of banks through credit rationing and optimal contracts to bank runs, central banks and regulation. The module will concentrate on analytical models, but there will be some reference to current issues in existing financial systems.

Programme module type:	Compulsory for MSc in Money, Banking and Finance.
	Optional for MSc in Economics, MSc in Finance, and MSc in Finance and Economics.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorial (fortnightly).
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Ozhan

EC5611 Portfolio Theory and Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module aims to develop students' knowledge and understanding of key issues in asset allocation and portfolio composition/management at an advanced level. Moreover it aims to provide students with the opportunity to develop their ability to critically understand current theoretical and empirical research in the field of portfolio management and the implications of such research into alternative portfolio composition and management strategies.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance and MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	2-hour Written Examination = 70%, Coursework = 30%
Module Co-ordinator:	I Psaradellis

EC5722 Risk Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides the student with an introduction to standard techniques in risk and insurance. The implementation of sound quantitative risk models to assess and insure against risk is a vital concern for all financial institutions. The module provides a comprehensive treatment of the theoretical concepts and modelling techniques of quantitative risk management. It provides students with practical tools to solve real world problems, in the context of portfolio management and credit risk. A major theme underlying all topics is the importance of ambiguity, especially regarding partial knowledge of asset distributions and investor preferences. Throughout we will relate the class discussion to current economic conditions.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Zhang

Master of Science Finance and Economics

Programme Requirements

Finance and Economics - MSc
(EC5201 (20 credits) **or** EC5202 (20 credits)) **and**   60 credits from Module List: EC5203, EC5601, EC5604 **and**   40 credits from List: EC5220-5223, 5225-5227, 5605-5606, 5608, 5610-5611, 5722, 4403, 4407-4408, 4411, 4413-4414, 4416, 4425   **and**   EC5399 (60 credits)   Other 4000-level courses might be taken with permission of the programme director.   **Of the 120 credits in taught modules**, a minimum of 100 credits must be in 5000-level modules

Compulsory modules:

Either

EC5201 Macroeconomics					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
The module will provide a thorough advanced treatment of the core models and concepts used in modern macroeconomics; for example the infinite horison Ramsey model and finite horizon overlapping generations model and models that have been used to characterise short term fluctuations, such as the real business cycle approach and the New Keynesian approach. Among other things, the module will seek to explain the development of microbased macroeconomic theory, use models to predict the impact of policy changes on endogenous variables and critique modelling assumptions, especially in the context of policy analysis. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module, supplementary lectures will be given on the relevant mathematical methods.					
Programme module type:	Compulsory for MSc in Economics Either EC5201 or EC5202 is compulsory for MSc in Finance and Economics				
Anti-requisite(s):	EC5801				
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).				
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%				
Module coordinator:	Dr O Senay				

OR

EC5202 Microeconomics				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will provide a thorough advanced treatment of the core models and concepts used in modern microeconomics. Microeconomic theory is concerned with the behaviour of individual economic actors (e.g. firms, consumers) and the aggregation of their actions in different institutional frameworks (e.g. markets), and models economic activity as an interaction of individual economic agents pursuing their private interests. Students will be presented with a set of concepts and mathematical techniques which will enable them to achieve a better understanding of economic activity and outcomes. This involves an understanding of how microeconomic models are built, focusing on their objective in terms of the phenomenon they are meant to explain, and the consequences of their assumptions in terms of the applicability of their predictions. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module,supplementary lectures will be given on the relevant mathematical methods.

Programme module type:	Compulsory for MSc in Economics Either EC5201 or EC5202 is compulsory for MSc In Finance and Economics
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr K Ozbek

EC5203 Econometric Methods and Applications				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will provide an advanced level training in aspects of econometric methods that is suitable for the basis for further work in econometrics and for understanding/being able to extract econometric techniques in published articles. The course will also give students the basis to support an empirical section in their MSc dissertation. Students are expected to have intermediate- level knowledge of matrix algebra, calculus and statistics. Before commencement of the module,supplementary lectures will be given on the relevant mathematical and statistical methods.

Programme module type:	Compulsory for MSc in Economics and for MSc in Finance and Economics		
Anti-requisite(s):	EC5609	**Required for:**	EC5221
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 8 weeks), 2-hour computing labs (x 2 weeks) plus 1 office hour (x 12 weeks)		
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Dr I Merkurieva		

EC5601 Investment Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module introduces the basic concepts of investment value analysis. Investments cover real economic projects such as those undertaken by corporations and governments, as well as financial investments, which are regularly priced and traded in financial markets. The ultimate aim is to provide the student with a standard approach to define, measure and predict value of investments in a world of uncertainty and asymmetric information. The tradeoff between risk and return is defined, and economic models of how risks and returns are determined and traded in financial markets are applied to solve any investment analysis problem. The valuation problems covered in this module involve corporate investments, a wide range of corporate liabilities such as shares and bonds, and associated financial contracts such as options. The module presents a standard framework to analyse agency problems that prevail in corporate financial decisions such as CEO compensation and performance assessment.

Programme module type:	Compulsory for MSc in Finance and Economics, and for MSc in Finance.
Required for:	EC5604, EC5606, EC5722
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture or 1 seminar.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M C Iannino

EC5604 Corporate Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

In this module we investigate the problem of how a collection of corporate liabilities are affected in value by corporate actions. Possible actions include corporate investment decisions, decisions regarding the firm's financial structure, changes in management rules and compensation and changes in the scope, specialisation and legal environment of the corporation's business. As in the Pre-requisite(s) module, EC5601, we emphasise standard methods for solving problems under economic uncertainty. At the end of this module the student will have a good working knowledge of institutions and the theory and valuation methods used worldwide in major corporations and financial institutions.

Programme module type:	Compulsory for MSc in Finance and Economics and for MSc in Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 1 seminar.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr V Prasad

EC5399 Dissertation in Finance and Economics				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module provides students with the opportunity to undertake an in-depth investigation of a topic relevant and appropriate to the MSc. The dissertation takes the form of a substantially extended theoretical, analytical or empirical essay. The word limit for the dissertation is 15,000. The lecture part of the module will train students' skills in framing a research hypothesis, conducting bibliographic research, writing a literature survey, and structuring a research paper.

Programme module type:	Compulsory for MSc in Finance and Economics
Learning and teaching methods and delivery:	**Weekly contact**: 5 lectures. Preparatory meeting and at least one supervisory meeting per month during the research period.
Assessment pattern:	Dissertation = 100%
Module coordinator:	Dr S Braun

Optional modules:

EC5220 Game Theory				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will provide a thorough advanced treatment of the core models and concepts used in modern game theory. Many serious things in life are games. Game theory is a set of formal techniques used to study situations of strategic interaction. These are situations where the reward obtained by each member of a group (e.g. firms, political parties, students) depends not only on the decision made by that member, but also on the decisions made by everybody else; and, in addition, everybody is aware of this interdependence. The methods of game theory are widely used in contemporary economics. An acquaintance with them is essential to the accomplished economist. In fact, game theory provides a unified language to address a spectrum of problems which is not limited to economics. Topics covered will include: strategic games; mixed strategy equilibria; extensive form games (with perfect information); bargaining games; repeated games; games of incomplete information; implementation theory; and bounded rationality. Students are expected to have a strong undergraduate level training in microeconomics and relevant mathematical and statistical techniques.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, and MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr L Bridet

EC5221 Econometric Time Series Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2	
Planned timetable:	To be arranged.				

This module will provide a thorough advanced treatment of the core theory and practice of time series econometrics. It examines the models and statistical techniques used to study time series data in economics. The first objective is to lay out the econometric theory of time series analysis and the second is to equip students who will use time series data or methods in their future Ph.D. research with some of the tools they will need. Students are expected to have intermediate- level knowledge of matrix algebra, calculus and statistics.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5203
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	3-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof R McCrorie
Module teaching staff:	Prof R McCrorie, Dr K Petrova

EC5225 Experimental Economics and Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2	
Planned timetable:	To be arranged.				

This module will start by exposing students to the methodology of experimental economics and finance. It will then review stylised facts and recent developments of its use to address various research questions in economics and finance. The rise of the use of experimental methods in economics and finance has created a useful dialogue between theoretical and laboratory-based empirical work. Typically, this process occurs as follows: experimental economists use human participants to test the behavioural implications of theoretical models in the laboratory; the new empirical evidence collected in the laboratory then suggests new venues for the development of novel theoretical models. This cycle then repeats itself. In this module we will sometimes consider such interplay between the development of theoretical models and the collection of empirical evidence in the laboratory.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance, and MSc in Money, Banking and Finance.
Pre-requisite(s):	Admission to MSc Economics or a strong undergraduate training in microeconomics and relevant mathematical and statistical techniques.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	3-hour Written Examination = 75%, Coursework (1,500-word Technical Essay) = 25%
Module coordinator:	Prof M Costa-Gomes

EC5227 Behavioural Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Traditionally, Financial Economics assumes that investors and other market participants are perfectly rational. While this is a good first approximation, we currently know there are a number of systematic biases in people's behaviour. The goal of this module is to discuss how these biases affect financial markets and investors' decisions. We will start with describing the most relevant deviations (such as overconfidence, representativeness and others), and we will continue with various financial applications. We will talk about bubbles, herding, and implications for corporate decisions and investors' behaviour.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance,
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 office hour (x 12 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl Class Test, 25%) = 50%
Module coordinator:	Dr M C Iannino

EC5605 Monetary Policy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will cover key issues in monetary policy. Topics will include: the case for price stability; time inconsistency and policy; the trade-off between inflation bias and output stabilisation; unconventional monetary policies; inflation targeting and other monetary frameworks; and the conduct of monetary policy in leading countries.

Programme module type:	Compulsory for MSc in Money, Banking and Finance. Optional for MSc in Economics, and MSc in Finance and Economics.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, tutorial (fortnightly)
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Ozhan

EC5606 Corporate Governance and Risk

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Three key components: (1) corporate governance; (2) risk management; and (3) financial management. Detailed content may vary year by year, but typically would include: mergers, takeovers, corporate control, governance, financial architecture, risk capital; risk in corporate and international settings; market consequences of managerial behaviour; corporate governance in family firms; financial distress and bankruptcy resolution.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 1 tutorial.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M La Manna

EC5608 Financial Intermediation

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will cover the main theoretical issues involved in financial intermediation, from the existence of banks through credit rationing and optimal contracts to bank runs, central banks and regulation. The module will concentrate on analytical models, but there will be some reference to current issues in existing financial systems.

Programme module type:	Compulsory for MSc in Money, Banking and Finance.
	Optional for MSc in Economics, MSc in Finance, and MSc in Finance and Economics.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorial (fortnightly).
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Ozhan

EC5611 Portfolio Theory and Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module aims to develop students' knowledge and understanding of key issues in asset allocation and portfolio composition/management at an advanced level. Moreover it aims to provide students with the opportunity to develop their ability to critically understand current theoretical and empirical research in the field of portfolio management and the implications of such research into alternative portfolio composition and management strategies.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance and MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	2-hour Written Examination = 70%, Coursework = 30%
Module coordinator:	I Psaradellis

EC5722 Risk Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides the student with an introduction to standard techniques in risk and insurance. The implementation of sound quantitative risk models to assess and insure against risk is a vital concern for all financial institutions. The module provides a comprehensive treatment of the theoretical concepts and modelling techniques of quantitative risk management. It provides students with practical tools to solve real world problems, in the context of portfolio management and credit risk. A major theme underlying all topics is the importance of ambiguity, especially regarding partial knowledge of asset distributions and investor preferences. Throughout we will relate the class discussion to current economic conditions.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Zhang

EC4403 Health and Education

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module explores economic perspectives on health and education. After introducing human capital theory, we will use this lens to examine the decision to invest in schooling and review empirical estimates of the returns to education. We will also consider policy interventions to improve education. In the second part of the course we will study the demand and supply of health services, paying particular attention to the issues surrounding public and private health insurance. We will also discuss public intervention directed at health behaviours. The module will conclude by examining the joint production of health and education, with a focus on early childhood.

Programme module type:	Optional for MSc in Finance and Economics, MSc In Economics
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 15 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module Co-ordinator:	Dr M Leighton

EC4407 Behavioural Economics

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

Behavioural economics combines traditional neoclassical microeconomics and empirically motivated assumptions with the goal of providing a better understanding of economic behaviour and welfare in settings that range from single-person decision problems under certainty, risk or uncertainty to multi-person decision problems. The module will introduce theoretical models that deviate from the standard assumptions of rational choice in order to explain observed behavioural patterns that arise both in single-period as well as in multi-period decision problems. When relevant, policy implications/responses will also be discussed.

Programme module type:	Optional for MSc in Economics and MSc in Finance and Economics
Anti-requisite(s):	EC4507, EC4607
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Dr G Gerasimou

EC4413 European Macroeconomics

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

The purpose of the module is to explore the macroeconomic and monetary issues involved in European economic integration. After a historical introduction focused on the question of why the members of the EC/EU have sought a single market for trade and then monetary union, the module provides a thorough examination of the theory of optimum currency areas, including trade and capital market linkages; convergence; and the role of exchange rate stability (real or nominal) from a European perspective. We then investigate the monetary policy strategy of the ECB; the need for and use of fiscal policy in a currency union; the Stability Pact; fiscal federalism; the relationship between fiscal and monetary policy; and the desirability of fiscal rules to ensure financial sustainability. Finally, we will examine labour market difficulties and structural reform in the EU.

Programme module type:	Optional for MSc in Economics and MSc in Finance and Economics
Anti-requisite(s):	EC4613, EC4513
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Prof A Sutherland

EC4416 Innovation Economics

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

Innovation is both a major contributory factor in economic growth and a crucial element of competitive behaviour and policy. The aim of this module is to introduce students to recent developments in the economic theory of innovation. The module, which is analytical in nature, examines the incentives firms have to innovate by the introduction of new products and new processes and, in particular, how this is affected by strategic competitive conditions.

Programme module type:	Optional for MSc in Economics and MSc in Finance and Economics
Anti-requisite(s):	EC4503, EC4616
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Dr M La Manna

EC4425 Econometrics of Impact Evaluation				
SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

Evaluating the causal effects of economic policies is an important but complex and challenging task. The purpose of this module is to introduce students to the core methods for evaluating the causal effect of economic policies and to apply these methods in practice. It will expose students to the concept of causality and explain under which assumptions the causal effect of economic policies can be identified. The module will have a strong focus on applications and will emphasise problems that economists encounter in practice when evaluating economic policies. Empirical examples will deal mainly with policies in labour economics and development economics. The laboratory sessions will discuss important empirical studies in the field and will provide students with the opportunity to apply empirical methods hands-on using Stata.

Programme module type:	Optional for MSc in Economics, and MSc in Finance and Economics
Pre-requisite(s):	EC5203
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 optional office hour (x 12 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
Module coordinator:	Dr S Braun

Master of Science Money, Banking and Finance

Programme Requirements

Money, Banking and Finance - MSc
100 credits from Module List: EC5605, EC5608 - EC5609, EC5801, EC5901 **and** 20 credits from Module List: EC5225-EC5227, EC5606, EC5610 - EC5611, EC5722 **and** EC5899 (60 credits)

Compulsory modules:

EC5605 Monetary Policy				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module will cover key issues in monetary policy. Topics will include: the case for price stability; time inconsistency and policy; the trade-off between inflation bias and output stabilisation; unconventional monetary policies; inflation targeting and other monetary frameworks; and the conduct of monetary policy in leading countries.				
Programme module type:	Compulsory for MSc in Money, Banking and Finance. Optional for MSc in Economics, and MSc in Finance and Economics.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, tutorial (fortnightly)			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr K Ozhan			
Module teaching staff:	Dr K Ozhan			

EC5608 Financial Intermediation				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module will cover the main theoretical issues involved in financial intermediation, from the existence of banks through credit rationing and optimal contracts to bank runs, central banks and regulation. The module will concentrate on analytical models, but there will be some reference to current issues in existing financial systems.				
Programme module type:	Compulsory for MSc in Money, Banking and Finance. Optional for MSc in Economics, MSc in Finance, and MSc in Finance and Economics.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorial (fortnightly).			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr K Ozhan			

EC5609 Financial Econometrics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will introduce the students to the theory and practice of financial econometrics. The module will begin by introducing students to the classical linear regression model and a number of issues regarding its application to real world data. The module will then develop a number of time-series techniques that can be applied to the study of financial economics. Topics covered include: the linear univariate stochastic model, multivariate models, unit root processes and co-integration. By the end of the module students should be able to undertake empirical analysis using financial data.

Programme module type:	Compulsory for MSc in Finance, and for MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week (x 9 weeks). 2 hours x 4 weeks of labs (weeks 2 or 3, 4 or 5, 7 and 9)
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Petrova

EC5801 Money and Banking

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module provides an introduction to the economics of money, banking and financial markets. It aims to present students with a general overview of key monetary and financial market phenomena, the basic workings of financial and money markets and the tools and conduct of monetary policy. The module covers topics such as how financial markets and institutions operate, the risk and term structure of interest rates, financial regulation and supervision, and central banking among others.

Programme module type:	Compulsory for MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Knowles

EC5901 International Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The module will cover key issues in international finance. Topics will include analyzing models of exchange rate determination, both nominal and real; and analysis of the determinants of international capital flows. The module will introduce a range of analytical models, together with a range of empirical and policy-oriented material.

Programme module type:	Compulsory for MSc in Finance, and for MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr G Mitka

EC5899 Dissertation in Money, Banking and Finance				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module provides students with the opportunity to undertake an in-depth investigation of a topic relevant and appropriate to the MSc. The dissertation takes the form of a substantially extended theoretical, analytical or empirical essay. The word limit for the dissertation is 15,000. The lecture part of the module will train students' skills in framing a research hypothesis, conducting bibliographic research, writing a literature survey, and structuring a research paper.

Programme module type:	Compulsory for MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 5 lectures. Preparatory meeting and at least one supervisory meeting per month during the research period.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr S Braun

Optional modules:

EC5225 Experimental Economics and Finance				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will start by exposing students to the methodology of experimental economics and finance. It will then review stylised facts and recent developments of its use to address various research questions in economics and finance. The rise of the use of experimental methods in economics and finance has created a useful dialogue between theoretical and laboratory-based empirical work. Typically, this process occurs as follows: experimental economists use human participants to test the behavioural implications of theoretical models in the laboratory; the new empirical evidence collected in the laboratory then suggests new venues for the development of novel theoretical models. This cycle then repeats itself. In this module we will sometimes consider such interplay between the development of theoretical models and the collection of empirical evidence in the laboratory.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance, and MSc in Money, Banking and Finance.
Pre-requisite(s):	Admission to MSc Economics or a strong undergraduate training in microeconomics and relevant mathematical and statistical techniques.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	3-hour Written Examination = 75%, Coursework (1,500-word Technical Essay) = 25%
Module coordinator:	Prof M Costa-Gomes

EC5227 Behavioural Finance				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Traditionally, Financial Economics assumes that investors and other market participants are perfectly rational. While this is a good first approximation, we currently know there are a number of systematic biases in people's behaviour. The goal of this module is to discuss how these biases affect financial markets and investors' decisions. We will start with describing the most relevant deviations (such as overconfidence, representativeness and others), and we will continue with various financial applications. We will talk about bubbles, herding, and implications for corporate decisions and investors' behaviour.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance,
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 office hour (x 12 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Coursework (incl Class Test, 25%) = 50%
Module coordinator:	Dr M C Iannino

EC5606 Corporate Governance and Risk

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Three key components: (1) corporate governance; (2) risk management; and (3) financial management. Detailed content may vary year by year, but typically would include: mergers, takeovers, corporate control, governance, financial architecture, risk capital; risk in corporate and international settings; market consequences of managerial behaviour; corporate governance in family firms; financial distress and bankruptcy resolution.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, 1 tutorial.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M La Manna

EC5611 Portfolio Theory and Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module aims to develop students' knowledge and understanding of key issues in asset allocation and portfolio composition/management at an advanced level. Moreover it aims to provide students with the opportunity to develop their ability to critically understand current theoretical and empirical research in the field of portfolio management and the implications of such research into alternative portfolio composition and management strategies.

Programme module type:	Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance and MSc in Money, Banking and Finance.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures, occasional tutorials.
Assessment pattern:	2-hour Written Examination = 70%, Coursework = 30%
Module coordinator:	I Psaradellis

EC5722 Risk Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides the student with an introduction to standard techniques in risk and insurance. The implementation of sound quantitative risk models to assess and insure against risk is a vital concern for all financial institutions. The module provides a comprehensive treatment of the theoretical concepts and modelling techniques of quantitative risk management. It provides students with practical tools to solve real world problems, in the context of portfolio management and credit risk. A major theme underlying all topics is the importance of ambiguity, especially regarding partial knowledge of asset distributions and investor preferences. Throughout we will relate the class discussion to current economic conditions.

Programme module type:	Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics and MSc in Money, Banking and Finance.
Pre-requisite(s):	EC5601
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Zhang

School of English

Taught Programmes

Postgraduate Diploma/ MLitt:
(this is also the Taught element of the MLitt and MPhil programme):

Creative Writing
Mediaeval English
Mediaeval Studies *(see section 16)*
Modern and Contemporary Literature and Culture
Postcolonial and World Literatures
Romantic /Victorian Studies
Shakespeare and Renaissance Literary Culture
Women, Writing and Gender

MFA:
Creative Writing

MPhil:
Mediaeval English
Mediaeval Studies *(see section 16)*
Modern and Contemporary Literature and Culture
Postcolonial and World Literatures
Romantic /Victorian Studies
Shakespeare and Renaissance Literary Culture
Women, Writing and Gender

Optional modules in English

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Masters in Creative Writing

Programme Requirements

Creative Writing - MLitt
EN5101 (20 credits) **and** ((EN5004 (40 credits) **and** EN5005 (60 credits)) **or** (EN5006 (40 credits) **and** EN5007 (60 credits)) **or** (EN5105 (40 credits) **and** EN5106 (60 credits))) **and** EN5099 (60 credits) **Further requirements** Choose 180 credits in academic year

MFA:

120 credits as for the Taught Element plus EN5801 and for writers of prose, a thesis of c. 40,000 words; for writers of poetry, a thesis of c. 40 pp. of verse; for writers for performance, a thesis of c. 90 minutes performance time.

Both degrees are designed to enable students to undertake a detailed study of poetry, prose, or writing for performance from the perspectives of practical, creative literary skills as well as those of criticism and the historical development of literary forms.

Compulsory modules:

EN5101 Research Skills for Creative Writing				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Available only to students on MLitt /MFA/PhD in Creative Writing			
Planned timetable:	To be arranged			
Students will learn about the literary marketplace, and the roles of editors, publishers, agents and festival organisers. They will also be introduced to the effective gathering of information through IT resources, library materials, as well as such primary skills as proofreading and copy-editing.				
Programme module type:	Compulsory for Creative Writing Postgraduate Programme			
Learning and teaching methods and delivery:	**Weekly contact**: Normally 1 seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Burnside			
Module teaching staff:	Team taught			

English - Creative Writing MLitt & MFA - 2017/8 - August 2017

EN5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to School of English postgraduate students			
Planned timetable:	At times to be arranged with the supervisor			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 18th August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Individually allocated supervisor			

EITHER:

EN5004 Writing Poetry 1

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Availability restrictions:	Available only to students on MLitt /MFA in Creative Writing (Poetry)			
Planned timetable:	To be arranged			
The module considers a range of essential topics in poetry and its composition, including the creative process, sound and sentence, the poetic line, imagery, metaphor, metre and meaning.				
Programme module type:	Optional for Creative Writing Postgraduate Programme			
Required for:	EN5005			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar and 1 practical class; tutorials by appointment			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr O Hazard			
Module teaching staff:	Team taught			

AND

EN5005 Writing Poetry 2

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on MLitt /MFA in Creative Writing (Poetry)			
Planned timetable:	To be arranged			
Students will extend their knowledge of poetry and its creation into more technical aspects of writing than were covered in depth in EN5004 Writing Poetry 1; the module will include detailed critical analyses of poems, as well as ideas of poetic traditions, rhetorical figure, trope, structure and form.				
Programme module type:	Optional for Creative Writing Postgraduate Programme			
Pre-requisite(s):	EN5004			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar and 1 practical class; tutorials by appointment			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr E Jones			
Module teaching staff:	Team taught			

OR:

EN5006 Writing Prose 1				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Availability restrictions:	Available only to students on MLitt /MFA in Creative Writing (Prose)			
Planned timetable:	To be arranged			
The module offers a critical and practical study of the writing of literary prose, including short and long fiction, as well as the literary essay, life writing and other non-fiction forms. Emphasis is given to the development of a literary prose tradition through the nineteenth and early twentieth centuries, looking at a variety of approaches, from the novel to New Journalism to the literary essays of such figures as Gore Vidal and Joan Didion.				
Programme module type:	Optional for Creative Writing Postgraduate Programme			
Required for:	EN5007			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar and 1 practical class; tutorials by appointment			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Burnside			
Module teaching staff:	Team taught			

AND

EN5007 Writing Prose 2				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on MLitt /MFA in Creative Writing (Prose)			
Planned timetable:	To be arranged			
Students will extend their study of prose writing and its techniques through discussion and critical and practical analysis. Emphasis will be given to exploring the wider possibilities of prose writing, with reference to the work of those contemporary or recent writers whose work defies easy categorisation, such as W.G. Sebald and John Haskell.				
Programme module type:	Optional for Creative Writing Postgraduate Programme			
Pre-requisite(s):	EN5006			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar and 1 practical class; tutorials by appointment			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms L Glaister			
Module teaching staff:	Team taught			

EN5105 Writing for Performance 1

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Availability restrictions:	Available only to students on MLitt /MFA in Creative Writing (Writing for Performance)			
Planned timetable:	To be arranged			

This module is designed to introduce key playwriting skills as well as writing for younger audiences and radio. There will be focus on new writing, and a particular emphasis on Scottish work and its place within contemporary theatre practice. Seminars will explore technical aspects of playwriting such as setting, character, and dialogue; in addition they will examine how playwrights challenge their audience. There is a growing audience for theatre for children, and the module will look at key practitioners in this area; in 'writing for radio', it will also address the techniques involved in writing for a mass audience.

Teaching will be by a) one two hour seminar per week and b) one dramaturgical workshop per week.

Programme module type:	Optional for Creative Writing Postgraduate Programme
Required for:	EN5106
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar, 1 workshop, 2-hours radio/audio listening, and 1 optional consultative hour
Assessment pattern:	Coursework = 100%
Module coordinator:	Mr O Emanuel
Module teaching staff:	Team taught

EN5106 Writing for Performance 2

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on MLitt /MFA in Creative Writing (Writing for Performance)			
Planned timetable:	To be arranged			

This module is designed to consolidate playwriting skills acquired in WFP I and to introduce writing for screen. Seminars will focus on both the technical aspects of writing a play or screenplay, such as dialogue, characterisation, image structure and dramatic action, as well as style, metaphor, the individual voice of the playwright/screenwriter, and the ambition and reach of the contemporary play or film in a wider context.

Teaching will be by a) one two hour seminar per week and b) one dramaturgical workshop per week.

Programme module type:	Optional for Creative Writing Postgraduate Programme
Pre-requisite(s):	EN5105
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar, 1 workshop, 4 hours film/video viewing, and 1 optional consultative hour
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof Z Harris
Module teaching staff:	Team taught

EN5801 Practical Pedagogy for Creative Writers

SCOTCAT Credits:	0	SCQF Level 11	**Semester:**	Whole Year

Availability restrictions:	Available only to the students in Year 2 of the MFA in Creative Writing

Planned timetable:	To be arranged

The module covers many aspects of teaching Creative Writing from a practical and theoretical perspective, including teaching close reading, workshop and feedback styles, and 'the writing exercise'. Students will also design their own teaching project in consultation with the tutor, and practical fieldwork will be undertaken. In addition, students will learn first-hand about the role of publishing in the dissemination and teaching of CW by assisting with the running of the School's international literary journal, The Scores. In the process they will learn about editing, proofreading, formatting, publication, marketing and distribution.

Programme module type:	Compulsory for the MFA in Creative Writing (Y2)
Pre-requisite(s):	120 credits from Creative Writing MLitt programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 8 weeks) 2 hours fieldwork (x 12 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Burnside
Module teaching staff:	Team taught

Master of Letters Medieval English

Programme Requirements

Medieval English - MLitt
EN5100 (20 credits) **and**   80 credits from Module List: EN5015, EN5017 - EN5018 **and**   20 credits from Module List: EN5401 - EN5402 **and**   EN5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year   **EN5401 or EN5402 can be substituted by another 5000-level module from within or outwith the School of English.**

Compulsory modules:

EN5100 Literary Research: Skills and Resources					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged				
This module is compulsory for all School of English MLitt programmes, except Creative Writing. It aims to initiate students in the understanding and use of the essential skills and resources of research in English Studies. It provides preparation for the MLitt dissertation. Elements include Use of Library Resources (Printed, Electronic and Remote); History of Book Production and the Institutions of Publishing; Scholarly Editing, and Getting your Work Published. This general module complements the more specialist compulsory modules of each individual MLitt.					
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School, except Creative Writing				
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar or workshop				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Director of Postgraduate Studies				
Module teaching staff:	Team taught				

EN5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to School of English postgraduate students			
Planned timetable:	At times to be arranged with the supervisor			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 18th August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Individually allocated supervisor			

EN5015 Reading the Medieval Text

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
The module is designed to provide or enhance some of the specific skills and areas of knowledge necessary for undertaking research in medieval literature. This will include study of paleography and codicology with specialists from the Special Collections department of the University Library, and editorial theory and practice as it relates to medieval texts.				
Programme module type:	Compulsory for Medieval English Postgraduate Programme Optional for students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr M R Purdie			
Module teaching staff:	Team taught			

EN5017 Old English

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Availability to be confirmed over the summer.			
Planned timetable:	To be arranged			
A grounding in Old English grammar and translation from Old English will be acquired with the help of grammar exercises and translation practice on original Old English texts. It is recognised that students may join this module with widely varying levels of experience of Old English, from none to fairly extensive. The aim is to get all students to an acceptable level of proficiency in reading and translation, and this is reflected in the assessment of this module by two translation exercises. Time and students' linguistic expertise permitting, some literary contextualisation of the texts studied and translated may also be included. Virtual learning tools will assist students in their acquisition of the necessary knowledge of Old English grammar, vocabulary and syntax.				
Programme module type:	Compulsory for Medieval English Postgraduate Programme Optional for students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr C Rauer			
Module teaching staff:	Dr C Jones			

EN5018 Middle English Literature in Context

SCOTCAT Credits:	40	SCQF Level 11	Semester:	Whole Year
Availability restrictions:	Availability to be confirmed over the summer			
Planned timetable:	To be arranged			

This module teaches culturally central Middle English and Scottish texts from the later Middle Ages within their wider cultural context. Fortnightly seminars examine a historical and generic variety of major literary texts produced from 1200 to 1500. Syllabus texts may range from the early Worcester Fragments, studied in their manuscript context, to Scots writers (and St Andrews graduates!) such as Gavin Douglas, whose work stretches into the early sixteenth century. Examples of key medieval genres such as saints' lives and romance are compared to their sources, counterparts or influences in other languages or earlier forms of English.

Programme module type:	Compulsory for Medieval English Postgraduate Programme
	Optional for students of any other relevant MLitt Postgraduate Programmes
	Optional for the MLitt in Mediaeval Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: Normally 1 seminar per fortnight
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Jones
Module teaching staff:	Team taught

Optional modules:

EN5401 Special Topic in English Studies 1

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

EN5402 Special Topic in English Studies 2

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

Masters in Modern and Contemporary Literature and Culture

Programme Requirements

Modern and Contemporary Literature and Culture - MLitt
EN5100 (20 credits) **and** 80 credits from Module List: EN5501 - EN5502, EN5511 - EN5512 **and** 20 credits from Module List: EN5401 - EN5402 **and** EN5099 (60 credits) **Further requirements** Choose 180 credits in academic year **EN5401 or EN5402 can be substituted by another 5000-level module from within or outwith the School of English.**

MPhil:

120 credits as for the Taught Element, plus a thesis of not more than 40,000 words

Compulsory modules:

EN5100 Literary Research: Skills and Resources				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module is compulsory for all School of English MLitt programmes, except Creative Writing. It aims to initiate students in the understanding and use of the essential skills and resources of research in English Studies. It provides preparation for the MLitt dissertation. Elements include Use of Library Resources (Printed, Electronic and Remote); History of Book Production and the Institutions of Publishing; Scholarly Editing, and Getting your Work Published. This general module complements the more specialist compulsory modules of each individual MLitt.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School, except Creative Writing			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar or workshop			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Team taught			

EN5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to School of English postgraduate students			
Planned timetable:	At times to be arranged with the supervisor			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 18th August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Individually allocated supervisor			

EN5501 Contextualising the Modern

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
Modernism, in its narrowest sense, refers to the radical literary experiments that occurred in English poetry and prose in the aftermath of the First World War by writers such as T.S. Eliot, James Joyce and Virginia Woolf. This module will explore those experiments in the context of the wider movements in culture and society that informed literary modernism in the first decades of the twentieth century.				
Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J Purdon			
Module teaching staff:	Team taught			

EN5502 Reading the Modern

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
Responding to what Pericles Lewis has termed the 'crisis of representation' in the opening decades of the twentieth century, this module explores attempts by writers to find new literary subjects and forms. In tandem with module EN5501, which considers the impact of political, social, scientific, technological and cultural revolution on literary traditions and techniques, this module explores the pursuit of a number of influential British, American and French modernists to develop modes of representation compatible with a newly urban, industrialised, mass-oriented age.				
Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar			

Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Purdon
Module teaching staff:	Team taught

EN5511 Theorising the Contemporary

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged			

The second half of the twentieth century and the beginning of the twenty-first century witnessed an explosion of theories about literature and culture in an attempt to understand the complexities of a historical period characterised by political, economic and social upheaval and rapid advancements in science and technology. This module will introduce students to key literary and cultural theories within the contemporary period via the close study of selected theoretical texts. Theories covered may include Marxism, postmodernism, deconstruction, poststructuralism, postcolonialism, queer theory, ecocriticism and contemporary poetics.

Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Purdon
Module teaching staff:	Team taught

EN5512 Contemporary Literature and Culture

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged			

In tandem with the theoretical and philosophical perspectives studied on EN5511, this module introduces students to a range of late twentieth and early twenty-first century writing. Focalised through both national and international perspectives, this module provides the opportunity to reflect on the proliferation of diverse literatures and other forms of cultural production in the contemporary world. The course is designed to expose students to a range of contemporary authors, poets and playwrights, moving between a detailed focus on highlighted key works and a wider a perspective on individual writer's oeuvres. Topics and themes may include: ecocriticism, postmodernism, terrorism, genre, magical realism, experimental writing, sexualities, globalisation and postcolonialism.

Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Purdon
Module teaching staff:	Team taught

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EN5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to School of English postgraduate students			
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 19th August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School.			
Learning and teaching methods and delivery:	Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module Co-ordinator:	Director of Postgraduate Studies			
Lecturer(s)/Tutor(s):	Individually allocated supervisor			

Optional modules:

EN5401 Special Topic in English Studies 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.				
Programme module type:	Optional for students of any MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of the relevant MLitt programme			
Module teaching staff:	Individually allocated supervisor			

EN5402 Special Topic in English Studies 2				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			
This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.				
Programme module type:	Optional for students of any MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of the relevant MLitt programme			
Module teaching staff:	Individually allocated supervisor			

Master of Letters

Postcolonial and World Literatures

Programme Requirements:

Postcolonial and World Literatures - MLitt
EN5100 (20 credits) **and** 80 credits from Module List: EN5601 - EN5604 **and** 20 credits from Module List: EN5401 - EN5402 **and** EN5099 (60 credits) **Further requirements** Choose 180 credits in academic year **EN5401 or EN5402 can be substituted by another 5000-level module from within or outwith the School of English.**

MPhil:
120 credits as for the Taught Element, plus a thesis of not more than 40,000 words

Compulsory modules:

EN5100 Literary Research: Skills and Resources				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module is compulsory for all School of English MLitt programmes, except Creative Writing. It aims to initiate students in the understanding and use of the essential skills and resources of research in English Studies. It provides preparation for the MLitt dissertation. Elements include Use of Library Resources (Printed, Electronic and Remote); History of Book Production and the Institutions of Publishing; Scholarly Editing, and Getting your Work Published. This general module complements the more specialist compulsory modules of each individual MLitt.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School, except Creative Writing			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar or workshop			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Team taught			

EN5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to School of English postgraduate students			
Planned timetable:	At times to be arranged with the supervisor			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 18th August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Individually allocated supervisor			

EN5601 Approaches, Theories, Contexts 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
Few fields of literary studies are riven with the debates, contestations and counter-arguments that characterise postcolonialism. This module explores the range of theoretical positions and diverse historical contexts that inform postcolonial studies across a global range of theorists. In this module, we will focus on the evolution of postcolonialism from theories of colonial discourse and an emergent concept of world literature, to decolonisation and the emergence of postcolonial studies in the late twentieth-century. Topics studied may include: abolition and empire; orientalism; colonial cinema; Victorian Britain and Empire; Marxist and materialist critiques; and the development of world literature.				
Programme module type:	Compulsory for Postcolonial and World Literatures MLitt programme Optional for students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 9 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A Raychaudhuri			
Module teaching staff:	Team taught			

EN5602 Approaches, Theories, Contexts 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			
Following on from Approaches, Theories, Contexts 1, this module focuses on recent interventions that challenge and extend the remit of both postcolonialism and world literature in light of contemporary contexts of globalisation, diaspora and a worlding of literary studies. Topics studied may include: hybridity and diaspora; contemporary Ireland and Scotland; Non-Anglophone post-colonial contexts; the global literary marketplace; and indigenous studies.				
Programme module type:	Compulsory for Postcolonial and World Literatures MLitt programme Optional for students of any other relevant MLitt Postgraduate Programmes			
Pre-requisite(s):	EN5601			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 9 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A Raychaudhuri			
Module teaching staff:	Team taught			

EN5603 Literature and Culture from the Colonial to the Postcolonial

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged			

This first semester module traces the global sweep of literary and cultural histories that have shaped the field of postcolonial studies. Reaching across a wide historical period from eighteenth and nineteenth century imperialism and empire, through post-war decolonisation and independence, this module aims to enhance students' understanding of the literary texts, films and cultural products that are the subject of postcolonial critique. Students will study works drawn from across Africa, the Caribbean, India, Ireland, as well as from the former centres of imperial power. Topics and areas of study may include: orientalism; 18th century and empire; 19th century colonial writers; modernism and empire; surrealism; negritude; literatures of independence; Goethe and world literature.

Programme module type:	Compulsory for Postcolonial and World Literatures MLitt programme
	Optional for students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 9 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Burns
Module teaching staff:	Team taught

EN5604 Postcolonial and World Literatures

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged			

Understood as a mapping of texts as they circulate globally and come into contact with diverse cultures and readerships, world literature criticism shares much in common with postcolonialism, yet it is a relationship that has received little attention to date. In tandem with the theoretical contexts studied on 'Approaches, Theories, Contexts 2' this module focuses on postcolonial literatures in the late 20th and 21st centuries. Exploring the work of contemporary writers, this module aims to map the dimensions of postcolonial and world literatures through a range of texts drawn from across the globe and which reflect on a new reality of transnationalism, globalisation and post-nationalism. Topics and writers studied may include contemporary Irish writing; globalisation and literature; postcolonial theatre; Roberto Bolaño; J. M. Coetzee; Jhumpa Lahiri; Nadia Mohamed; and Irvine Welsh.

Programme module type:	Compulsory for Postcolonial and World Literatures MLitt programme
	Optional for students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 9 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Burns
Module teaching staff:	Team taught

Optional modules:

EN5401 Special Topic in English Studies 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

EN5402 Special Topic in English Studies 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

Masters in Romantic /Victorian Studies

Programme Requirements

Romantic/Victorian Studies - MLitt
EN5100 (20 credits) **and** EN5200 (40 credits) **and** EN5204 (40 credits) **and** 20 credits from Module List: EN5401 - EN5402 **and** EN5099 (60 credits) **Further requirements** Choose 180 credits in academic year **EN5401 or EN5402 can be substituted by another 5000-level module from within or outwith the School of English.**

MPhil:

120 credits as for the Taught Element, plus a thesis of not more than 40,000 words

Compulsory modules:

EN5100 Literary Research: Skills and Resources					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged				
This module is compulsory for all School of English MLitt programmes, except Creative Writing. It aims to initiate students in the understanding and use of the essential skills and resources of research in English Studies. It provides preparation for the MLitt dissertation. Elements include Use of Library Resources (Printed, Electronic and Remote); History of Book Production and the Institutions of Publishing; Scholarly Editing, and Getting your Work Published. This general module complements the more specialist compulsory modules of each individual MLitt.					
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School, except Creative Writing				
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar or workshop				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Director of Postgraduate Studies				
Module teaching staff:	Team taught				

EN5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to School of English postgraduate students			
Planned timetable:	At times to be arranged with the supervisor			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 18th August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Individually allocated supervisor			

EN5200 Life, Text, Afterlife

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module explores the phases of literary and cultural production and reception, from the lives of authors and cultural figures, through the conditions of publication of their work, to their reception in later works of literature, their histories of publication and dissemination, and the challenges involved in presenting modern editions of their texts. Subjects likely to be covered include Milton's Romantic readers; the adaptation of Jane Austen in the twentieth century; Romantic celebrity culture; periodical publication; and editorial and biographical practice.				
Programme module type:	Compulsory for Romantic/Victorian Studies Postgraduate Programme Optional for students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 10 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof N Roe			
Module teaching staff:	Team taught			

EN5204 Literary History, Politics, Culture

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			
This module explores the interactions of literature and its various historical, philosophical, cultural and political contexts in the eighteenth and nineteenth centuries. Many of the authors we study as producers of imaginative literature also engaged in polemical, historical or philosophical writing. Literary works could make decisive and poignant contributions to particular political debates, and the literary sphere itself has its own politics. This module shows how thoroughly literature is connected to the broader discursive and historical world. Topics likely to be covered include Romantic medievalism; socialism, aestheticism and decadence; antisemitism and Englishness; and literature and the slave trade.				
Programme module type:	Compulsory for Romantic/Victorian Studies Postgraduate programme. Optional for students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 10 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr E Sutton			
Module teaching staff:	Team taught			

Optional modules:

EN5401 Special Topic in English Studies 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

EN5402 Special Topic in English Studies 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

Masters in Shakespeare and Renaissance Literary Culture

Programme Requirements

Shakespeare and Renaissance Literary Culture - MLitt
EN5100 (20 credits) **and**   Between 60 and 80 credits from Module List: EN5301 - EN5304 **and**   Between 20 and 40 credits from Module List: EN5401 - EN5402 **and**   EN5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year   **EN5401 or EN5402 can be substituted by another 5000-level module from within or outwith the School of English.**

MPhil:

120 credits as for the Taught Element, plus a thesis of not more than 40,000 words

Compulsory modules:

EN5100 Literary Research: Skills and Resources				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module is compulsory for all School of English MLitt programmes, except Creative Writing. It aims to initiate students in the understanding and use of the essential skills and resources of research in English Studies. It provides preparation for the MLitt dissertation. Elements include Use of Library Resources (Printed, Electronic and Remote); History of Book Production and the Institutions of Publishing; Scholarly Editing, and Getting your Work Published. This general module complements the more specialist compulsory modules of each individual MLitt.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School, except Creative Writing			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar or workshop			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Team taught			

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EN5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year

Availability restrictions:	Available only to School of English postgraduate students
Planned timetable:	At times to be arranged with the supervisor

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 18th August.

Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision
Assessment pattern:	Dissertation = 100%
Module coordinator:	Director of Postgraduate Studies
Module teaching staff:	Individually allocated supervisor

EN5301 The Continental Renaissance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Planned timetable:	To be arranged

English literature did not develop in isolation, but in response to continental writing. This module will investigate the relationship between the literature of the English Renaissance and the European vernaculars of the period. It will examine continental texts, their early modern English translations, and English work influenced by them. Possible topics for discussion include: Petrarch's sonnets and their English imitators and adaptors; Ariosto's Orlando Furioso; the political writing of Machiavelli; and Castiglione's Libro del Cortegiano and its influence. All texts will be taught in English.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

EN5302 Shakespeare and Textual Culture

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged

This module offers students a thorough grounding in the bibliographical skills required to study Renaissance literature (with an introduction to electronic resources), in tandem with an investigation of contemporary readings of the textual culture of the period. Themes for discussion may include: the relationship between manuscript, orality and print in the early modern period; theories of authorship; the relationship between performance and playtext in the Renaissance theatre; editorial theory.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%

Module coordinator:	TBC
Module teaching staff:	Team taught

EN5303 Renaissance Popular Culture

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

This module aims to build upon the themes explored in EN5304, 'Learned Culture'. Here, the emphasis is less upon rhetoric and classroom practice in the sixteenth century, and more upon Renaissance literature's engagement with a wider field of influences and practice, explored as aspects of 'the popular' in its widest sense. Themes for discussion may include: the place of the stage; popular festivity and literary form; ballads and print; jests and alehouses; the impact of the Reformation. Texts to be discussed may include: Shakespeare's The Winter's Tale; law and popular culture; the poetry of Robert Herrick.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

EN5304 Learned Culture: Rhetoric, Politics and Identity

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module investigates the learned culture of Renaissance England, with a particular focus on the teaching of rhetoric in the grammar school classroom and its relevance to the literary production of the period. Topics covered may include: figures of speech; rhetoric and gender; the controversial plot; and the politics of Renaissance humanism.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

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Optional modules:

EN5401 Special Topic in English Studies 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

EN5402 Special Topic in English Studies 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

Masters in Women, Writing and Gender

Programme Requirements

Women, Writing and Gender - MLitt
EN5100 (20 credits) **and** 80 credits from Module List: EN5112, EN5115, EN5116 **and** 20 credits from Module List: EN5401 - EN5402 **and** EN5099 (60 credits) **Further requirements** Choose 180 credits in academic year **EN5401 or EN5402 can be substituted by another 5000-level module from within or outwith the School of English.**

MPhil:

120 credits as for the Taught Element, plus a thesis of not more than 40,000 words

Compulsory modules:

EN5100 Literary Research: Skills and Resources				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module is compulsory for all School of English MLitt programmes, except Creative Writing. It aims to initiate students in the understanding and use of the essential skills and resources of research in English Studies. It provides preparation for the MLitt dissertation. Elements include Use of Library Resources (Printed, Electronic and Remote); History of Book Production and the Institutions of Publishing; Scholarly Editing, and Getting your Work Published. This general module complements the more specialist compulsory modules of each individual MLitt.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School, except Creative Writing			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar or workshop			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Team taught			

EN5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to School of English postgraduate students			
Planned timetable:	At times to be arranged with the supervisor			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted on or by 18th August.				
Programme module type:	Compulsory for all MLitt Postgraduate Programmes within the School			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Director of Postgraduate Studies			
Module teaching staff:	Individually allocated supervisor			

EN5112 Theories and Contexts

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged			
The module provides an introduction to key debates in contemporary feminist and gender theory, alongside an overview of the historical and cultural context within which these theories have developed. The emphasis will be upon the course as a point of departure, and the seminars will be accompanied by an extensive reading list through which the students will be encouraged to explore those areas of enquiry that most interest them.				
Programme module type:	Compulsory for Women, Writing and Gender Postgraduate Programme Optional for students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: Normally 1 seminar per fortnight			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof S Sellers			
Module teaching staff:	Team taught			

EN5115 Women, Writing and Gender 1: Renaissance to Romanticism

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
The module seeks to introduce students to a range of debates concerning women, writing and gender through history. The set texts embrace a variety of generic forms, and reflect upon such questions as the 'problem' of woman's voice. Central to many of the works are such concerns as the role of woman in marriage and civic society, the importance of education, and the tension between domestic ideology and female desire. Central to these works is a concern with constructions of femininity and masculinity and in conjunction with EN5112, the module will also examine current critical debates surrounding the cultural configuration of gender.				
Programme module type:	Compulsory for Women, Writing and Gender Postgraduate Programme Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof S Sellers			
Module teaching staff:	Team taught			

EN5116 Women, Writing and Gender 2: Victorian to Contemporary

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2

Planned timetable:	To be arranged

This module continues the chronological survey of debates surrounding women, writing and gender begun by EN5115. The module examines continuity and change in constructions of gender across the period 1800 to the present. Students will be introduced to key critical readings of nineteenth-century women's writing before moving on to consider the emergence of the 'new woman' at the fin de siècle. In the twentieth century the module will consider the work of modernist writers alongside 'middlebrow' and popular fictions. Finally students will examine a range of contemporary writers whose rewriting of history and myth engages with current debates in gender theory.

Programme module type:	Compulsory for Women, Writing and Gender Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof S Sellers
Module teaching staff:	Team taught

Optional modules:

EN5401 Special Topic in English Studies 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			
This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.				
Programme module type:	Optional for students of any MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of the relevant MLitt programme			
Module teaching staff:	Individually allocated supervisor			

EN5402 Special Topic in English Studies 2				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			
This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.				
Programme module type:	Optional for students of any MLitt Postgraduate Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Director of the relevant MLitt programme			
Module teaching staff:	Individually allocated supervisor			

EN5112 Theories and Contexts

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged			

The module provides an introduction to key debates in contemporary feminist and gender theory, alongside an overview of the historical and cultural context within which these theories have developed. The emphasis will be upon the course as a point of departure, and the seminars will be accompanied by an extensive reading list through which the students will be encouraged to explore those areas of enquiry that most interest them.

Programme module type:	Compulsory for Women, Writing and Gender Postgraduate Programme
	Optional for students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 1 seminar per fortnight
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof S Sellers
Module teaching staff:	Team taught

EN5115 Women, Writing and Gender 1: Renaissance to Romanticism

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

The module seeks to introduce students to a range of debates concerning women, writing and gender through history. The set texts embrace a variety of generic forms, and reflect upon such questions as the 'problem' of woman's voice. Central to many of the works are such concerns as the role of woman in marriage and civic society, the importance of education, and the tension between domestic ideology and female desire. Central to these works is a concern with constructions of femininity and masculinity and in conjunction with EN5112, the module will also examine current critical debates surrounding the cultural configuration of gender.

Programme module type:	Compulsory for Women, Writing and Gender Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof S Sellers
Module teaching staff:	Team taught

EN5116 Women, Writing and Gender 2: Victorian to Contemporary

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

This module continues the chronological survey of debates surrounding women, writing and gender begun by EN5115. The module examines continuity and change in constructions of gender across the period 1800 to the present. Students will be introduced to key critical readings of nineteenth-century women's writing before moving on to consider the emergence of the 'new woman' at the fin de siècle. In the twentieth century the module will consider the work of modernist writers alongside 'middlebrow' and popular fictions. Finally students will examine a range of contemporary writers whose rewriting of history and myth engages with current debates in gender theory.

Programme module type:	Compulsory for Women, Writing and Gender Postgraduate Programme Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof S Sellers
Module teaching staff:	Team taught

EN5200 Life, Text, Afterlife

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module explores the phases of literary and cultural production and reception, from the lives of authors and cultural figures, through the conditions of publication of their work, to their reception in later works of literature, their histories of publication and dissemination, and the challenges involved in presenting modern editions of their texts. Subjects likely to be covered include Milton's Romantic readers; the adaptation of Jane Austen in the twentieth century; Romantic celebrity culture; periodical publication; and editorial and biographical practice.

Programme module type:	Compulsory for Romantic/Victorian Studies Postgraduate Programme Optional for students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 10 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof N Roe
Module teaching staff:	Team taught

EN5204 Literary History, Politics, Culture

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

This module explores the interactions of literature and its various historical, philosophical, cultural and political contexts in the eighteenth and nineteenth centuries. Many of the authors we study as producers of imaginative literature also engaged in polemical, historical or philosophical writing. Literary works could make decisive and poignant contributions to particular political debates, and the literary sphere itself has its own politics. This module shows how thoroughly literature is connected to the broader discursive and historical world. Topics likely to be covered include Romantic medievalism; socialism, aestheticism and decadence; antisemitism and Englishness; and literature and the slave trade.

Programme module type:	Compulsory for Romantic/Victorian Studies Postgraduate programme. Optional for students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar (x 10 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Sutton
Module teaching staff:	Team taught

EN5301 The Continental Renaissance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

English literature did not develop in isolation, but in response to continental writing. This module will investigate the relationship between the literature of the English Renaissance and the European vernaculars of the period. It will examine continental texts, their early modern English translations, and English work influenced by them. Possible topics for discussion include: Petrarch's sonnets and their English imitators and adaptors; Ariosto's Orlando Furioso; the political writing of Machiavelli; and Castiglione's Libro del Cortegiano and its influence. All texts will be taught in English.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

English - Optional modules for MLitt programmes - 2017/8 - August 2017

EN5302 Shakespeare and Textual Culture

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

This module offers students a thorough grounding in the bibliographical skills required to study Renaissance literature (with an introduction to electronic resources), in tandem with an investigation of contemporary readings of the textual culture of the period. Themes for discussion may include: the relationship between manuscript, orality and print in the early modern period; theories of authorship; the relationship between performance and playtext in the Renaissance theatre; editorial theory.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

EN5303 Renaissance Popular Culture

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

This module aims to build upon the themes explored in EN5304, 'Learned Culture'. Here, the emphasis is less upon rhetoric and classroom practice in the sixteenth century, and more upon Renaissance literature's engagement with a wider field of influences and practice, explored as aspects of 'the popular' in its widest sense. Themes for discussion may include: the place of the stage; popular festivity and literary form; ballads and print; jests and alehouses; the impact of the Reformation. Texts to be discussed may include: Shakespeare's The Winter's Tale; law and popular culture; the poetry of Robert Herrick.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

EN5304 Learned Culture: Rhetoric, Politics and Identity

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged			

This module investigates the learned culture of Renaissance England, with a particular focus on the teaching of rhetoric in the grammar school classroom and its relevance to the literary production of the period. Topics covered may include: figures of speech; rhetoric and gender; the controversial plot; and the politics of Renaissance humanism.

Programme module type:	Compulsory for Shakespeare and Renaissance Literary Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught

EN5401 Special Topic in English Studies 1

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

EN5402 Special Topic in English Studies 2

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged			

This module operates as a directed reading programme which allows students to explore topics in greater depth than is possible in core modules. Special Topics are offered by selected staff across all MLitt programmes on a rotating basis. Students who hope to go on to doctoral work may wish to use the Special Topic to conduct a pilot study in their proposed area of doctoral studies. Teaching/supervision is normally via 6 tutorials which may be individual or arranged in groups, depending on numbers. Some special topics may make use of relevant individual seminars on extant modules in place of one or more tutorials. Syllabus and reading will be finalised in consultation with the member(s) of staff.

Programme module type:	Optional for students of any MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: Normally 6 tutorials over the semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Director of the relevant MLitt programme
Module teaching staff:	Individually allocated supervisor

EN5501 Contextualising the Modern

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

Modernism, in its narrowest sense, refers to the radical literary experiments that occurred in English poetry and prose in the aftermath of the First World War by writers such as T.S. Eliot, James Joyce and Virginia Woolf. This module will explore those experiments in the context of the wider movements in culture and society that informed literary modernism in the first decades of the twentieth century.

Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Purdon
Module teaching staff:	Team taught

EN5502 Reading the Modern

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged			

Responding to what Pericles Lewis has termed the 'crisis of representation' in the opening decades of the twentieth century, this module explores attempts by writers to find new literary subjects and forms. In tandem with module EN5501, which considers the impact of political, social, scientific, technological and cultural revolution on literary traditions and techniques, this module explores the pursuit of a number of influential British, American and French modernists to develop modes of representation compatible with a newly urban, industrialised, mass-oriented age.

Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Purdon
Module teaching staff:	Team taught

EN5511 Theorising the Contemporary

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

The second half of the twentieth century and the beginning of the twenty-first century witnessed an explosion of theories about literature and culture in an attempt to understand the complexities of a historical period characterised by political, economic and social upheaval and rapid advancements in science and technology. This module will introduce students to key literary and cultural theories within the contemporary period via the close study of selected theoretical texts. Theories covered may include Marxism, postmodernism, deconstruction, poststructuralism, postcolonialism, queer theory, ecocriticism and contemporary poetics.

Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Purdon
Module teaching staff:	Team taught

EN5512 Contemporary Literature and Culture

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged			

In tandem with the theoretical and philosophical perspectives studied on EN5511, this module introduces students to a range of late twentieth and early twenty-first century writing. Focalised through both national and international perspectives, this module provides the opportunity to reflect on the proliferation of diverse literatures and other forms of cultural production in the contemporary world. The course is designed to expose students to a range of contemporary authors, poets and playwrights, moving between a detailed focus on highlighted key works and a wider a perspective on individual writer's oeuvres. Topics and themes may include: ecocriticism, postmodernism, terrorism, genre, magical realism, experimental writing, sexualities, globalisation and postcolonialism.

Programme module type:	Compulsory for Modern and Contemporary Literature and Culture Postgraduate Programme
	Optional for German and Comparative Literature and students of any other relevant MLitt Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Purdon
Module teaching staff:	Team taught

Masters in English Language Teaching

Programme Requirements

English Language Teaching - MLitt
80 credits from Module List: ET5100 - ET5109 **and** 40 credits from Module List: ET5121 - ET5150 **and** ET5199 (60 credits)   Further requirements   Choose 180 credits in academic year.

Modules:

ET5101 The Language Learner				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module focuses on how subsequent languages are learned after the first/native language. Theories of language acquisition will be evaluated, from behaviourism to current theory. Students need to trace the development of such theories in order to consider what each theory offers. Ways in which all learners appear to follow a similar route will be considered before making a detailed study of individual learner differences, in particular levels of motivation and the development and application of language learning strategies. The module then investigates how theories of language acquisition inform teaching, and the lack of interface between research and practice will be discussed.

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Co-requisite(s):	ET5103, ET5107
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 11 weeks) and 1-hour seminar (x 11 weeks).
Assessment pattern:	3-hour Written Examination = 40%, Coursework (2 essays) = 60%
Module coordinator:	Mrs K Tavakoli
Module teaching staff:	Team taught

ET5103 Linguistics for Language Teachers

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module is designed to equip students with the skills required to describe and analyse both spoken and written discourse. It does not assume prior knowledge of linguistics and seeks to introduce students to selected fundamental concepts, relevant to English language teaching. Students will acquire appropriate terminology and techniques in the analysis and description of grammar and phonology including an active engagement with phonemic transcription.

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Co-requisite(s):	ET5101, ET5107
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 10 weeks) and 1-hour seminar (x 10 weeks).
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Ms M Carr
Module teaching staff:	Team taught

ET5105 Language Teaching Methodology

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will explore the theories that inform teaching practice and will analyse the implications these will have in terms of ways of learning, material used, the teacher role and the classroom. This is essential for all those seeking to understand their teaching environment more clearly and for those who have a chance to influence teaching environments. The module will allow students to consider the merits and drawbacks of a number of theories against the backdrop of the classroom environment. Students will have the opportunity to demonstrate their understanding of theoretical constructs and their potential applications through two assessed writing tasks.

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Pre-requisite(s):	ET5101, ET5103, ET5107
Co-requisite(s):	ET5124, ET5125, ET5126, ET5127
Learning and teaching methods and delivery:	**Weekly contact**: 1x 2-hour lecture (x 11 weeks), 1 x tutorial (x 7 weeks), 1 x seminar (x 4 weeks)
Assessment pattern:	Coursework (50% class test, 50% Report) = 100%
Module coordinator:	Mrs K George-Briant
Module teaching staff:	Team taught

ET5107 The Context of English Language Teaching

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	

Planned timetable:	To be arranged.

This module examines both the local and broader global contexts of English Language Teaching and provides a broad introduction to sociolingusitics. The key focus is to investigate how language teaching approaches and methodologies are shaped by various cultural, political, educational and social contexts. ELT (English Language Teaching) is also examined in relation to WES (World Englishes), EFL (English as a Foreign Language), EAL (English as an Additional Language) and ELF (English as a Lingua Franca).

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Co-requisite(s):	ET5101, ET5103
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture (x 10 weeks) 1 tutorial (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Mrs D Cremonese
Module teaching staff:	Team taught

ET5124 English for Academic Purposes

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2	

Planned timetable:	To be arranged.

Preparing and supporting students who come to study for undergraduate or postgraduate degrees through the medium of English is one of the most challenging but rewarding jobs in the field of language teaching. To do this well, an EAP teacher needs to understand the higher education context, the key principles underpinning learning in a university, text and discourse in the communities of different disciplines, theories and practice of assessment, and the most effective methods and materials to motivate students and help them into a discourse community. This module will take advantage of opportunities to observe lectures and tutorials in EAP taught in ELT, and in other disciplines at the University of St Andrews in order to have a greater awareness of the work of an EAP teacher in preparing and delivering materials designed to meet the needs of students.

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Pre-requisite(s):	ET5101, ET5103, ET5107
Co-requisite(s):	ET5105, ET5125, ET5126, ET5127
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 5 weeks) and 1-hour tutorial (x 5 weeks), one-to-one supervision tutorial to discuss the proposal for the assessed oral presentation
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms A Malcolm-Smith
Module teaching staff:	Team taught

ET5125 Teaching Young Learners

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module explores theories of child development and learning which are fundamental to the understanding of child second language acquisition. this is divided into three distinct groups, namely children aged 4-7, 8-11 and 12-18. This informs the language teacher of what the child can achieve in their first language, which has considerable bearing on what is appropriate in second language acquisition and teaching. The module divides the teaching of language into oral and written skills, productive and receptive skills, grammar and vocabulary acquisition, various teaching approaches and the use of stories in language teaching. child psychology has to be taken into account in development of teaching materials, teaching styles and classroom management, and comparisons will often be made between different age groups. Assessment is in the form of a portfolio which can be collected throughout the course, and allows for students to focus on their preferred aspects of teaching young learners.

Programme module type:	Optional for English Language Teaching Postgraduate programme.
Pre-requisite(s):	ET5101, ET5103, ET5107
Co-requisite(s):	ET5105, ET5124, ET5126, ET5127
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 6 weeks) and 1-hour seminar (x 6 weeks).
Assessment pattern:	Coursework (portfolio)= 100%
Module coordinator:	Mrs K Tavakoli
Module teaching staff:	Team taught

ET5126 Assessment and Evaluation

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module aims to provide students with a detailed understanding of the key concepts behind different methods of testing and evaluation in English language teaching and learning. We examine the rationale for formative and summative assessment, and how this fits within the curriculum, including both internal testing and high stakes tests such as Trinity exams and IELTS. A further aim of the module is to differentiate between testing and the importance of other aspects of evaluation in language teaching, such as classroom observations, feedback and feed forward. We then examine the theory underpinning test construction, in particular test validity and reliability, and the role of criteria in assessment. The module also looks at the use of technology in testing and assessment.

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Pre-requisite(s):	ET5101, ET5103, ET5107
Co-requisite(s):	ET5105, ET5124, ET5125, ET5127
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 6 weeks) and 1-hour seminar (x 6 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Mrs D Cremonese
Module teaching staff:	

ET5127 Teaching and Researching

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides students with the knowledge and skills required to design and carry out independent research in Applied Linguistics and ELT. It introduces the key research approaches and a variety of research methods used in investigating language teaching and learning. It takes a step-by-step approach through the process, from the key concepts involved in Applied Linguistics research, to the design, carrying out a research project and evaluating research findings.

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Pre-requisite(s):	ET5101, ET5103, ET5107
Co-requisite(s):	ET5105, ET5124, ET5125, ET5126
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 5 weeks) and 1-hour seminar (x 5 weeks).
Assessment pattern:	Coursework (Literature Review) = 100%
Module coordinator:	Ms G Lloyd
Module teaching staff:	Ms G Lloyd

ET5199 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times arranged with the supervisor			

Student dissertations will be supervised by members of the teaching staff, who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the University deadline.

Programme module type:	Compulsory for English Language Teaching Postgraduate programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision
Assessment pattern:	Dissertation = 100%
Module coordinator:	J Magee
Module teaching staff:	Individually allocated supervisor

Masters in Film Studies

Programme Requirements

Film Studies - MLitt
FM5001 (60 credits) **and** 30 credits from Module List: FM5101 - FM5250 **and** 30 credits from Module List: FM5101 - FM5250 **or** 30 credits from Module List: FM4100 - FM4399) **and** FM5099 (60 credits) **Further requirements** Choose 180 credits in academic year Access to FM4100 - FM4399 requires the permission of the Director of Teaching.

MPhil:
120 credits as for Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

FM5001 Theory and Practice of Research in Film Studies				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	S1: 10.00 am -12.00 noon pm Mon (Screening 3.00 pm -5.00 pm Fri) S2: 12.00 noon - 2.00 pm Mon (Screening 3.00 pm - 5.00 pm Fri)			
This module seeks to provide the kind of sophisticated theoretical and research skills training now regarded as indispensable for all postgraduates. It has both theoretical and methodological orientation and aims at teaching the students to correlate adequately conceptual frameworks and research designs. Its aim are to (a) debate and enrich our common concepts of reading and analyzing cinematic texts and contexts, by providing a range of different perspectives on film theory and methodology of criticism and various approaches to cinematic research, and (b) offer high-quality training related to methodology which stresses various aspects of conceiving, pursuing, organising, and successfully completing research projects in film studies.				
Programme module type:	Compulsory for Film Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar plus film screening.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr P Lovatt			
Module teaching staff:	Dr P Lovatt, Dr P Flaig, Dr D Hanlon, Dr L Torchin, Dr A Jain			

FM5099 Dissertation for MLitt Film Studies Programme				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for Film Studies MLitt Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Staff			

Choose both optional modules (normally):

FM5103 Film Technologies and Aesthetics				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Tue (Screening 4.30 pm - 7.00 pm Mon)			
This module surveys the history of various cinema technologies. Particular attention will be given to the ways in which the emergence of new technologies - such as sound, colour, cameras and camera mounts, varying screen dimensions, and lighting systems - affect aesthetic issues in global cinemas. By taking a global perspective, the module aims to engage these issues in ways that address the cultural and economic conditions that affect and are affected by the adoption of new technologies. The specific technologies addressed in the module may vary over semesters, and in some semesters the focus may be on a single film technology and in others it may take a comparative approach.				
Programme module type:	Optional for Film Studies Postgraduate Taught Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar, plus film screening.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Dr J O'Meara			

FM5105 Film Cultures

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Mon (Screening 4.00 pm - 6.00 pm Tue)			

Film Cultures focuses on the context in which film exists: past and present global and local narratives that have been perpetuated through film, production conditions and trends, distribution and circulation practices, and the ever changing models of exhibiting cinema on all sizes of screens. It aims to ensure that students have a wide and comprehensive understanding on the ways in which cinema functions in the world at large, but also that they are up to date on current trends and developments.

Programme module type:	Optional for Film Studies Postgraduate Programme
Co-requisite(s):	FM5001
Learning and teaching methods and delivery:	**Weekly contact**: Students will engage in weekly 2-hour seminar discussions (2 hr seminars x 11 weeks) and will also benefit from scheduled film viewings (2 hrs screenings x 11 weeks), a dedicated practical class on film programming (3 hrs x 1 week), and from an individual supervisory session (1 hour per student once a semester).
Assessment pattern:	Coursework= 100%
Additional information from School:	As part of the module, there will be a special additional three hours seminar on film programming for art house cinemas.
Module coordinator:	Prof D Iordanova

in exceptional circumstances, one of the following may be taken:

FM4109 Film and the Archive

SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	2
Planned timetable:	10.00 am to 12.00 noon Mon (Screenings: 4.30 pm to 7.00 pm Mon)			

Film and the Archive will provide students with both a theoretical framework for archival research and practical experience in engaging with archival materials. In focusing this module on the local context of cinema in St Andrews, students will have the opportunity to develop their own research projects in one of five topic areas (exhibition, production, cinema culture, audiences, and star culture). Through these local studies, students will develop a broader understanding of film history and culture, learning to correlate their local research to broader developments in film history. Students will develop employable research skills that are useful beyond the specifics of the course. For example, they will have the opportunity to write, present and publish to both academic and general audiences, and will gain a thorough grounding in methodologies relevant for the archival study of cinema.

Programme module type:	Optional for Film Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar plus screening.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Rice

FM4116 Stars

SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	2
Planned timetable:	2.00 pm to 4.00 pm Tue (Screenings: 4.30 pm to 8.00 pm Tue)			

This module approaches stardom as one of the most exciting, complex, and crucial components of the filmic experience, exploring its aesthetic, cultural, ideological, and industrial sides. Students will be introduced to key theoretical frameworks in Star Studies, and to a representative range of stars. Topics may include the beginning of the star system and the emergence of film fandom, the conflictive meanings of star images, audience desire and star cults, the relation of stars to social representations and politics, and to gender and sexuality. Stars covered may include Rudolph Valentino, Leslie Cheung, Sophia Loren, Will Smith, Greta Garbo, Amitabh Bachchan, and Dirk Bogarde. Students will have the opportunity to research and write on a star of their choice.

Please Note: the required viewing for this module is two films per week.

Programme module type:	Optional for Film Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar plus screening (up to 4 hours).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Girelli

FM4120 Silent Cinema

SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	2
Academic year:	2017/8			
Planned timetable:	10.00 am - 12.00 noon Tue (Screenings: 4.30 pm to 8.00 pm Thu)			

The period of silent cinema oversaw the emergence of crucial aspects that would come to characterize cinema as both an industry and an artform. At the same time, silent film was a form somewhat distinct from the sound films that came afterwards, and one whose development proceeded differently in different global contexts. This module will examine this critical period of film history by exploring the era through a variety of contexts. The first week will set out the historical period as well as key debates in film history, as well as introduce students to more recent developments in the field. As a team-taught course, the module will ordinarily be organised in three related clusters. These clusters may include, but will not be limited to: Representations of race and gender in the silent era; silent stars; Audiences and fan cultures; Historicizing Silent Cinema; Global Silent Cinema; Early documentary; Early sound practices; and Intermedial approaches to silent film.

Programme module type:	Optional for Film Studies
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar plus screening (up to 4 hours).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Cowan
Module teaching staff:	Dr M Cowan, Dr E Girelli, Dr T Rice

FM4204 Asian Cinemas

SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	2
Academic year:	2017/8			
Planned timetable:	2.00 pm - 4.00 pm Mon (Screening 4.30 pm - 7.00 pm Tue)			

Hollywood may be the global box office champion among the world's film industries for now, but it is far from being the industry that produces the most films. In 2012, India's various industries produced nearly four times as many films as Hollywood. Adding in production numbers from China, Japan and South Korea, that figure rises to six and a half times, and is not including many other industries in South Asia (Pakistan, Bangladesh, Sri Lanka), East Asia (Hong Kong, Taiwan, Philippines) and Southeast Asia (Indonesia, Thailand, Vietnam). Asian Cinemas will explore this most prolific, diverse and exciting area of world cinema by scrutinising it in various ways. Topics may include the cinemas of certain regions (Southeast Asia), languages (Chinese-language cinemas, including Singapore), pan-Asian production practices and stardom, the close relationship between cinema and popular music in Asian cinemas, Asian genres (martial arts, New Years films, gangster films), and the recent migration of art cinema's global centre of gravity from Europe to Asia (Hong Kong, Taiwanese and South Korean new waves) among others. By discussing how the different aesthetics created by these cinemas are specific to their contexts, this module questions and challenges the universal applicability of concepts previously developed in Film Studies. For 2017/18, the module will focus on Chinese-language Cinema.

Programme module type:	Optional for Film Studies
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar plus screening (up to 4 hours).
Assessment pattern:	Coursework = 100%
Re-assessment pattern:	Take Home Examination (48 hour slot) = 100%
Module coordinator:	Dr P Lovatt

FM4303 Documentary Cinema

SCOTCAT Credits:	30	SCQF Level 10	**Semester:**	2
Planned timetable:	TBC			

This module surveys the history of documentary film (technological, stylistic, etc.), while taking up the theoretical debates around cinematic claims to truth and representations of reality. Students will examine how documentary differs from other kinds of filmmaking, how documentaries make 'truth claims', and how these claims influence the ways in which these films are received and circulated. Beginning with the actualities of the Lumiere Brothers, students will be exposed to multiple genres (e.g. ethnographic, civic, cinema verite, experimental, self-reflexive) and filmmakers (e.g. John Grierson, Dziga Vertov, Jean Rouch, Errol Morris) while addressing the variety of arenas (e.g. scientific, civic, commercial) in which documentary has appeared.

Programme module type:	Optional for Film Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar plus screening.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Torchin
Module teaching staff:	Dr L Torchin

Department of Geography and Sustainable Development

Taught Programmes

Postgraduate Certificate:
Sustainable Development

Postgraduate Diploma:
(this is also the Taught element of the MLitt and MPhil programme):

Sustainable Development
Sustainable Development and Energy

MSc:
Sustainable Energy
Sustainable Development and Energy
Sustainable Development and Environmental Economics

MRes:
Human Geography / Sustainable Development

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Research Human Geography / Sustainable Development

Programme Requirements

Master of Research Human Geography/Sustainable Development
120 credits from Module List: SS5101 - SS5104, GG5004 - GG5005 and GG5099 (60 credits)

Compulsory modules:

SS5101 Being a Social Scientist				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 - 5.00 pm Fri			
Through a series of interactive seminars this two-part module explores the fundamental skills required by all social scientists. In part one, the module will focus on how to design and produce a research dissertation. Assessment will be in the form of a critical essay that analyses the research design of a selection of papers. In part two, issues of professional development (e.g. ethics, careers, grant writing) will be addressed. Assessment will be in the form of a class test in which you will review and comment on two research proposals.				
Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development. Compulsory for various MRes Programmes outwith the School. Optional for Research Methods in Psychology (MSc), for Sustainable Development and Environmental Economics (MSc), for Sustainable Development (MSc), for Sustainable Development and Energy (MSc). Optional for various other MRes Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr M Kesby			

SS5102 Philosophy and Methodology of the Social Sciences				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Wed			
This seminar-based module will introduce you to the basic theoretical approaches in the social sciences, encourage you to make connections between the methodological and epistemological issues involved in conducting social scientific research, and inspire you to reflect critically your own experience. The module will cover modern philosophy's historical evolution, positivism, feminism, critical theory and post-structuralism among other topics. Assessment will involve a one short review and one longer essay.				
Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development, for Research Methods in Psychology (MSc) and various other MRes Programmes Optional for Sustainable Development (MRes), Sustainable Development and Environmental Economics (MSc) Optional for various other MRes Programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr M Kesby			
Module teaching staff:	TBC (Colleagues from International Relations)			

SS5103 Qualitative Methods in Social Research

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr M Kesey and Dr D Williams

SS5104 Quantitative Research in Social Science

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	1.00 - 5.00 pm Mon			

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion).
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes.
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales

GG5004 Advanced Social Science Research Training 1: Reviewing, Conceptualising, Framing.

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1

Availability restrictions:	Available only to students taking an MRes Human Geography/Sustainable Development

Planned timetable:	TBC

This is a directed reading module that will enable students to expand their understanding of the field of knowledge in Human Geography or Sustainable Development that will be the focus of their MRes Dissertation and later, their PHD. Students will have individual tutorials with the member of staff who will supervise their Dissertation/PhD. The empirical content will be bespoke to the student/supervisor/project. The module will focus on literature review, challenging the student to place their evolving research project a wider sub-disciplinary/disciplinary and/or interdisciplinary field, framing, conceptualising, theorising and problematising existing research and seeking opportunities for new contributions.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development		
Pre-requisite(s):	Must be taking an MRes Degree in the School of Geography & Sustainable Development	Anti-requisite(s):	GG5000, GG5001
Co-requisite(s):	SS5101, SS5014	Required for:	GG5099
Learning and teaching methods and delivery:	**Weekly contact**: 1-to-1 supervision meeting (x 10 weeks)		
Assessment pattern:	Practical Examination = 30%, Coursework = 70%		
Module coordinator:	Dr M Kesby		
Module teaching staff:	Team taught		

GG5005 Advanced Social Science Research Training 2: Designing, Planning, Implementing

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2

Availability restrictions:	Available only to students taking an MRes Human Geography/Sustainable Development

Planned timetable:	TBC

This is a directed reading module that will enable students to expand their understanding of a field of knowledge in Human Geography or Sustainable Development that will be the focus of their MRes Dissertation and later, their PHD. Students will have individual tutorials with the member of staff who will supervise their Dissertation/PhD. The empirical content will be bespoke to the student/supervisor/project. The module will focus on method, methodology and research design challenging the student to reflect on what they have learned in the SS5000 programme an apply that learning the development of a research protocol for their own evolving research project.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development		
Pre-requisite(s):	GG5004		
Co-requisite(s):	SS5102, SS5103	Required for:	GG5099
Learning and teaching methods and delivery:	**Weekly contact**: 1-to-1 supervision meeting (x 11 weeks)		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr M Kesby		
Module teaching staff:	Team taught		

GG5099 Dissertation in Human Geography/Sustainable Development

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer

Availability restrictions:	Available only to students taking MRes Programmes in the School of Geography and Sustainable Development
Planned timetable:	To be arranged.

Depending on their interests, students choose a topic in the field of human geography or sustainable development on which to conduct independent research. Dissertations will be supervised by a member of the teaching staff who will provide advice throughout the research process. Research will be conducted over the summer after the end of the taught modules. The project can be used to pilot some aspect of the PHD project onto which the student will transition after completing the MRes. The completed dissertation must be no more than 15,000 words.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
Pre-requisite(s):	GG5004, GG5005, SS5001, SS5002, SS5003, SS5004
Learning and teaching methods and delivery:	**Weekly contact**: Up to 8 hours of guided study per student over semester 2 and the summer (one-to-one supervision, by arrangement with supervisor).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Team taught

Masters in Sustainable Development
also Postgraduate Certificate and Postgraduate Diploma

Programme Requirements

Sustainable Development - MSc
SD5001 (30 credits) **and** SD5004 (15 credits) **and** SD5005 (15 credits) **and** 60 credits from List: SD5024, SD5103, EG3020, ES5011, ES5050, ID5011, GG5227, SS5101-SS5103, SG4228, MO5223, MN5513, MN5311, MN5821, MD5201-MD5206 **and** SD5098 (60 credits) **Postgraduate Certificate:** 30 credits: SD5001 or (SD5103 and SD5104) 30 credits: 5000-level modules chosen in consultation with the Programme Director and any other School involved. **Postgraduate Diploma:** Identical to the MSc except that the dissertation is not completed.

Compulsory modules:

SD5001 Interrogating Sustainable Development				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.00 pm Tue			

This module provides an introduction to sustainable development. First, it introduces the history and application of the concept of sustainable development. Second, there is a series of disciplinary-based lectures that describe the nature and functioning of the social, political, economic and physical, and systems that combine to create the world that we can observe around us. Specific material will also be presented that links these various aspects together and explores their interactions.

In addition, this module will have a short induction component to it during the pre-sessional week of term which has a three-fold purpose: (i) to introduce students to the shape of the degree program and St Andrews, (ii) allow students to explore their existing skill base and identify what skills require further work and (iii) provide a context (in the form of a field trip) within which to start an investigation of what inter-disciplinarity entails. This will entail two one-day seminars.

Programme module type:	Compulsory for the Postgraduate Diploma and MSc Sustainable Development, MSc Sustainable Development and Energy and MSc Sustainable Development and Environmental Economics
Required for:	SD5098
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 3-hour seminar
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr D McCauley

SD5004 Introduction to Global Environmental Change

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

This module provides students of sustainable development with the scientific background to past, present and future climate change and its consequences, globally. Topics covered include the functioning of the global climate system on timescales up to multi-millenial, and the response of ice-sheets, sea-level, ocean circulation, ecosystems and carbon-cycling, soil erosion, biodiversity and conservation.

Programme module type:	Compulsory for MSc in Sustainable Development, Sustainable Development and Energy, Sustainable Development and Environmental Economics
Required for:	SD5098
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture (x 10 weeks), 1 seminar (x 10 weeks)
Assessment pattern:	Coursework (including presentation =20%)= 100%
Module coordinator:	Prof D Benn
Module teaching staff:	Team taught

SD5005 Master Class in Sustainable Development

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module has three elements: (i) a series of presentations by academic experts in their chosen field of sustainable development along with structured reflection and further exploration of these various topic areas, (ii) the development and presentation (in groups) of case studies of sustainable development problems and/or exemplars of excellence in sustainable development, and (iii) the completion of two master class review essays in specialised areas of sustainable development. This module is designed to provide you with an ability to reflect critically on the potential and limitations of sustainable development.

Programme module type:	Compulsory for MSc in Sustainable Development, Sustainable Development and Energy and Sustainable Development and Environmental Economics		
Pre-requisite(s):	SD5001		
Anti-requisite(s):	SD5003	**Required for:**	SD5098
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 tutorial (x 10 weeks)		
Assessment pattern:	50-minute group presentation = 20%, Coursework = 80%		
Module coordinator:	Dr D McCauley		
Module teaching staff:	Team taught		

SD5098 Advanced study in Sustainable Development				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to students on an MSc programme in Sustainable Development			
Planned timetable:	12.00 noon - 1.00 pm Tue			

The purpose of this module is to provide experience and training in applied scientific writing and evaluation. This will be assessed via an academic literature review, a policy brief (based on the format and structure of POSTNotes produced by the Parliamentary Office of Science and Technology, Westminster) and a reflection on the process of translating academic review into policy advice . This allows students to apply conceptual considerations and critical evaluation to a real world context using a number of well-established formats that involve synthesis, evaluation and translation of scientific knowledge.

Programme module type:	Compulsory for MSc in Sustainable Development, Sustainable Development and Energy, and Sustainable Development and Environmental Economics
Pre-requisite(s):	Admission to one of the SD MSc programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture per fortnight (during semesters 1 and 2), 3 field trips (during semesters 1 and 2)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Davies
Module teaching staff:	Dr A Davies, Dr D McCauley, Dr E McLaughlin

Sustainable Development optional modules:

SD5024 Economics for the Environment

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module introduces students to the contributions that environmental economics can make to helping us understand and manage a wide range of environmental problems. We also study the insights which economics provides on the relationship between economic growth and environmental quality, and the measurement of sustainability. No prior knowledge of economics is presumed, and a course textbook is available which is co-written by one of the course lecturers.

Programme module type:	Compulsory for MSc in Sustainable Development and Environmental Economics Optional for Sustainable Development and in Sustainable Development and Energy
Anti-requisite(s):	SD5023
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours - mixture of lectures and seminar style teaching
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E McLaughlin
Module teaching staff:	Team taught

SD5025 Climate Policy and Climate Economics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to the contributions that environmental economics can make to helping us understand and manage a wide range of environmental problems. We also study the insights which economics provides on the relationship between economic growth and environmental quality, and the measurement of sustainability. No prior knowledge of economics is presumed, and a course textbook is available which is co-written by one of the course lecturers.

Programme module type:	Optional for MSc Sustainable Development, MSc Sustainable Development and Energy, MSc Sustainable Development and Environmental Economics
Learning and teaching methods and delivery:	**Weekly contact**: 2-hours lecture (x 6 weeks); 1-hour lecture (x 5 weeks); 1-hour seminar (x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Braun
Module teaching staff:	Dr C Braun

SD5103 Development and Environment				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Wed			

The world has changed dramatically since the early 1700s, and the onset of modern economic growth and the industrial revolution. However, despite rapid advancements the world today remains divided between high-income, middle-income and low-income countries. This module takes a broad perspective on economic development and how it interacts with the environment. The module introduces key concepts in economic development and natural resource management.

Programme module type:	Compulsory for MSc in Sustainable Development and Environmental Economics
	Optional for Sustainable Development and Sustainable Development and Energy
Anti-requisite(s):	SD3224, SD4113, SD5101
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours - mixture of lectures and seminar style teaching
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E McLaughlin
Module teaching staff:	Team taught

Further optional modules are available from partner Schools/Departments:

Partner subjects: In addition to SD coded options modules, students may, with the permission of their advisor and the schools concerned, also 'dip across' to some modules in Geography, History, Management and Medicine (details below). Full module details are available online

Earth Sciences:

EG3020 Global Climate Change				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

ES5011 Water in the Environment				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

ES5050 Earth's Greatest Hits				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

ID5011 Geographic Information Systems for Environmental Management				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

Geography:

GG5227 Introduction to Geographic Information Science				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

SS5101 Being a Social Scientist				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

SS5102 Philosophy and Methodology of the Social Sciences				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

SS5103 Qualitative Methods in Social Research				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

SG4228 Advanced Topics in Geographic Information Science (GISci)				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

History:

MO5223 Disease and Environment (c.1500 - c.2000) (20)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Management:

MN5513 Ethics, Organisations and Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

MN5311 Responsible Investment				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

MN5821 Managing Non-Governmental Organisations				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Medicine:

MD5201 Issues in Global Health				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

MD5202 Principles in Implementation Science				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

MD5203 Ten Global Health Problems				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

MD5204 Globalisation and Health				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

MD5205 Inequalities and Inequities in Global Health				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

MD5206 Evidence Synthesis for Global Health Policy, Programming, and Practice				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

Masters in Sustainable Development and Energy
also Postgraduate Diploma

This is a double Masters programme: the first taken at St Andrews for a year, the second at the Moscow State Institution of International Relations (MGIMO) which involves internship placements at an energy company in Moscow.

Programme Requirements

Sustainable Development and Energy - MSc
SD5001 (30 credits) **and** SD5004 (15 credits) **and** SD5005 (15 credits) **and** SD5098 (60 credits) **and** 60 credits from Module List: SD5024, SD5103, EG3020, ES5011, ID5011, GG5227, SS5101-SS5103, SG4228, MO5223, MN5513, MN5821, MD5201-MD5206

Compulsory modules:

SD5001 Interrogating Sustainable Development					
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**		1
Planned timetable:	2.00 pm - 5.00 pm Tue				

This module provides an introduction to sustainable development. First, it introduces the history and application of the concept of sustainable development. Second, there is a series of disciplinary-based lectures that describe the nature and functioning of the social, political, economic and physical, and systems that combine to create the world that we can observe around us. Specific material will also be presented that links these various aspects together and explores their interactions.

In addition, this module will have a short induction component to it during the pre-sessional week of term which has a three-fold purpose: (i) to introduce students to the shape of the degree program and St Andrews, (ii) allow students to explore their existing skill base and identify what skills require further work and (iii) provide a context (in the form of a field trip) within which to start an investigation of what inter-disciplinarity entails. This will entail two one-day seminars.

Programme module type:	Compulsory for the Postgraduate Diploma and MSc Sustainable Development, MSc Sustainable Development and Energy and MSc Sustainable Development and Environmental Economics
Required for:	SD5098
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 3-hour seminar
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr D McCauley

SD5004 Introduction to Global Environmental Change

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

This module provides students of sustainable development with the scientific background to past, present and future climate change and its consequences, globally. Topics covered include the functioning of the global climate system on timescales up to multi-millenial, and the response of ice-sheets, sea-level, ocean circulation, ecosystems and carbon-cycling, soil erosion, biodiversity and conservation.

Programme module type:	Compulsory for MSc in Sustainable Development, Sustainable Development and Energy, Sustainable Development and Environmental Economics
Required for:	SD5098
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture (x 10 weeks), 1 seminar (x 10 weeks)
Assessment pattern:	Coursework (including presentation =20%)= 100%
Module coordinator:	Prof D Benn
Module teaching staff:	Team taught

SD5005 Master Class in Sustainable Development

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module has three elements: (i) a series of presentations by academic experts in their chosen field of sustainable development along with structured reflection and further exploration of these various topic areas, (ii) the development and presentation (in groups) of case studies of sustainable development problems and/or exemplars of excellence in sustainable development, and (iii) the completion of two master class review essays in specialised areas of sustainable development. This module is designed to provide you with an ability to reflect critically on the potential and limitations of sustainable development.

Programme module type:	Compulsory for MSc in Sustainable Development, Sustainable Development and Energy and Sustainable Development and Environmental Economics		
Pre-requisite(s):	SD5001		
Anti-requisite(s):	SD5003	**Required for:**	SD5098
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 tutorial (x 10 weeks)		
Assessment pattern:	50-minute group presentation = 20%, Coursework = 80%		
Module coordinator:	Dr D McCauley		
Module teaching staff:	Team taught		

SD5098 Advanced study in Sustainable Development

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year

Availability restrictions:	Available only to students on an MSc programme in Sustainable Development
Planned timetable:	12.00 noon - 1.00 pm Tue

The purpose of this module is to provide experience and training in applied scientific writing and evaluation. This will be assessed via an academic literature review, a policy brief (based on the format and structure of POSTNotes produced by the Parliamentary Office of Science and Technology, Westminster) and a reflection on the process of translating academic review into policy advice . This allows students to apply conceptual considerations and critical evaluation to a real world context using a number of well-established formats that involve synthesis, evaluation and translation of scientific knowledge.

Programme module type:	Compulsory for MSc in Sustainable Development, Sustainable Development and Energy, and Sustainable Development and Environmental Economics
Pre-requisite(s):	Admission to one of the SD MSc programmes
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture per fortnight (during semesters 1 and 2), 3 field trips (during semesters 1 and 2)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Davies
Module teaching staff:	Dr A Davies, Dr D McCauley, Dr E McLaughlin

Optional modules:

SD5024 Economics for the Environment

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

Planned timetable:	11.00 am - 1.00 pm Wed

This module introduces students to the contributions that environmental economics can make to helping us understand and manage a wide range of environmental problems. We also study the insights which economics provides on the relationship between economic growth and environmental quality, and the measurement of sustainability. No prior knowledge of economics is presumed, and a course textbook is available which is co-written by one of the course lecturers.

Programme module type:	Compulsory for MSc in Sustainable Development and Environmental Economics Optional for Sustainable Development and in Sustainable Development and Energy
Anti-requisite(s):	SD5023
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours - mixture of lectures and seminar style teaching
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E McLaughlin
Module teaching staff:	Team taught

SD5025 Climate Policy and Climate Economics

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module introduces students to the contributions that environmental economics can make to helping us understand and manage a wide range of environmental problems. We also study the insights which economics provides on the relationship between economic growth and environmental quality, and the measurement of sustainability. No prior knowledge of economics is presumed, and a course textbook is available which is co-written by one of the course lecturers.

Programme module type:	Optional for MSc Sustainable Development, MSc Sustainable Development and Energy, MSc Sustainable Development and Environmental Economics
Learning and teaching methods and delivery:	**Weekly contact**: 2-hours lecture (x 6 weeks); 1-hour lecture (x 5 weeks); 1-hour seminar (x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Braun
Module teaching staff:	Dr C Braun

SD5103 Development and Environment

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	10.00 am - 12.00 noon Wed			

The world has changed dramatically since the early 1700s, and the onset of modern economic growth and the industrial revolution. However, despite rapid advancements the world today remains divided between high-income, middle-income and low-income countries. This module takes a broad perspective on economic development and how it interacts with the environment. The module introduces key concepts in economic development and natural resource management.

Programme module type:	Compulsory for MSc in Sustainable Development and Environmental Economics Optional for Sustainable Development and Sustainable Development and Energy
Anti-requisite(s):	SD3224, SD4113, SD5101
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours - mixture of lectures and seminar style teaching
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E McLaughlin
Module teaching staff:	Team taught

Further optional modules are available from partner Schools/Departments:

Partner subjects: In addition to SD coded options modules, students may, with the permission of their advisor and the schools concerned, also 'dip across' to some modules in Earth Sciences, Geography, History, Management and Medicine (details below). Full module details are available online

Earth Sciences:

EG3020 Global Climate Change				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

ES5011 Water in the Environment				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

ID5011 Geographic Information Systems for Environmental Management				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

Geography:

GG5227 Introduction to Geographic Information Science				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

SS5101 Being a Social Scientist				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

SS5102 Philosophy and Methodology of the Social Sciences				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

SS5103 Qualitative Methods in Social Research				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

SS5104 Quantitative Research in Social Science				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

SG4228 Advanced Topics in Geographic Information Science (GISci)				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

History:

MO5223 Disease and Environment (c.1500 - c.2000) (20)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Management:

MN5513 Ethics, Organisations and Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

MN5311 Responsible Investment				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

MN5821 Managing Non-Governmental Organisations				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Medicine:

MD5201 Issues in Global Health				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

MD5202 Principles in Implementation Science				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

MD5203 Ten Global Health Problems				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

MD5204 Globalisation and Health				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

MD5205 Inequalities and Inequities in Global Health				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

MD5206 Evidence Synthesis for Global Health Policy, Programming, and Practice				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2

School of History

Taught Programmes

MLitt & MPhil:

The Book. History and Techniques of Analysis
Central and East European Studies
Early Modern History
Environmental History
Intellectual History
Legal and Constitutional History
Mediaeval History
Mediaeval Studies
Middle Eastern History
Modern History
Reformation Studies
Scottish Historical Studies
Transnational, Global and Spatial History

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Masters in The Book. History and Techniques of Analysis

Programme Requirements

The Book. History and Techniques of Analysis - MLitt
MO5113 (40 credits) **and** Between 0 and 80 credits from Module List: MO5030 - MO5039, MO5602, MO5609 **and** MO5099 (60 credits) **Further requirements** Choose 180 credits in academic year Other optional modules offered within the School of History may be available with the approval of the Programme coordinator.

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

MO5113 Books and their Readers in Early Modern Europe				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module aims to provide students with a good understanding of key issues and methods in book history ca.1445-1830. Through the evaluation of primary and secondary sources students will become familiar with the invention, development, spread, and transformation of printing in the period concerned. They will develop a sound knowledge of important aspects of book history, such as the economics of the book trade, the social and religious context of printed books, the development of the illustrated book, the relationship between books and the Enlightenment, and the history of libraries and book collecting.				
Programme module type:	Compulsory for The Book: History and Techniques of Analysis Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr M McLean			

MO5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Optional for Central and East European Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Dr J Clark			
Module teaching staff:	By arrangement			

Optional modules:

MO5030 Early Modern Documents and Sources				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Thu			
This module provides a wide-ranging introduction to the types of source material which researchers on the early modern period may encounter. In studying this module, you will be trained in critical analysis of genres of both textual and material sources. It offers an introduction to methodological commentaries on the nature of such sources, a range of British, European, and global examples of them, and the chance for you to discuss examples drawn from your own particular areas of specialism. The module also provides a guide to analysing modern editions of documents and assessing their reliability. Its training in the variety of material which early modernists may unexpectedly find themselves working with, whatever their specialism, is an excellent complement to the other skills pathways, and important preparation for the MLitt (and any potential doctoral) dissertation.				
Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.			
Co-requisite(s):	Another of MO5030 - MO5039	**Anti-requisite(s):**	MO5012	
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J Rose			

MO5031 Latin for Postgraduate Research

SCOTCAT Credits:	20	SCQF Level 11	Semester:	Whole Year
Planned timetable:	9.30 am - 11.00 am Mon and Tue			

The three tiers of teaching (beginners, intermediate, and translation) provide suitable levels of engagement with Latin for students with earlier or no experience. The beginners' class covers the fundamentals of Latin grammar and syntax; gives practice in translating separate sentences, short Latin passages written specifically for the class; passages of genuine Latin taken from a wide variety of sources including the Vulgate, the Church Fathers, Mediaeval, and later historians, hymns, and popular verses; surveys various types of Latin literature from late antiquity to the eighteenth century, Latin as a spoken language, pronunciation, and the advantages of Latin as a lingua franca; translation techniques. The intermediate class offers revision and consolidation of the above, introducing students to more complex aspects of grammar and syntax. The advanced translation class uses authors of verse and prose, analyses Latin styles, includes translation into Latin as well as from Latin into English, and offers exercises in recognising and correcting mistakes in modern published authors' versions of Latin texts, and in improving other versions and in correctly transcribing and translating manuscript material.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.		
Co-requisite(s):	Another of MO5030 - MO5039	Anti-requisite(s):	MO5012
Learning and teaching methods and delivery:	**Weekly contact**: 2 x fortnightly 1.5-hour seminars.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr P Maxwell-Stuart		

MO5032 Material Bibliography

SCOTCAT Credits:	20	SCQF Level 11	Semester:	Whole Year
Planned timetable:	2.00 pm - 4.00 pm Thu			

Material Bibliography is a year-long training option intended for students enrolled on the Book History, Reformation Studies or Early Modern MLitt programmes. It covers the use of the Book as historical evidence, and practical aspects of cataloguing and Special Collections work. Closely supervised seminars will cover: Basic tools? Databases and how to identify hand pressed books; Reading a title page; Latin for book historians; Printers, publishers and booksellers; Paper and format; Collation formulae and pagination, type description; Fingerprints; Refresher - edition vs. copy; Provenance; Binding and Bindings; Workshop - describing books; Databases and bibliometrics. Semester one focuses on group training, semester two on supervised individual practice.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.		
Co-requisite(s):	Another of MO5030 - MO5039	Anti-requisite(s):	MO5012
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars or 2.5-hour practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr M McLean		

MO5033 Paleography and Manuscript Studies

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	11.00 am - 1.00 pm Fri			

This module provides a wide-ranging introduction to the reading and handling of original source material of all types which researchers of the early modern period may encounter. In studying this module, you will gain the skills you need to read early modern handwriting and gain a sense of the nature of European handwriting in the early modern period. You will learn how to create a transcription (to professional standards). The module also provides experience in handling original source materials. This training in the variety of material which early modernists may find themselves working with, whatever their specialism, is an excellent complement to the other skills pathways, and important preparation for the MLitt (and any potential doctoral) dissertation.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.		
Co-requisite(s):	Another of MO5030 - MO5039	Anti-requisite(s):	MO5012
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr M Connolly		

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes.
	Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5609 Directed Reading in Modern History 2

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Central and East European Studies, Early Modern History, Environmental History, Modern History, Reformation Studies and The Book. History and Techniques of Analysis Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

Masters in Central and East European Studies

Programme Requirements

Central and East European Studies - MLitt
MO5810 (20 credits) **and** MO5811 (20 credits) **and** 80 credits 80 credits from Module List: GM5011, IR5227, MO5301, MO5402, MO5503, MO5602, MO5606, MO5609 - MO5610, MO5621 - MO5622, RU5011, RU5014 **and** IR5099 (60 credits) **or** MO5099 (60 credits))   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

MO5810 Masterclass in Central and East European Studies 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The Masterclass is a compulsory, interdisciplinary module designed as an introduction to the study of Central and Eastern Europe, past and present. In addition to a basic grounding in the history of modern and contemporary Central and Eastern Europe (including Russia), the module draws on the expertise of colleagues in International Relations, Film Studies, Modern Languages and Literature, and Art History. The goal is to provide students with an opportunity both to broaden their knowledge through a variety of research methods, and also to identify research questions for themselves, which they may wish to explore in some of the more specialized Optional Modules, or, indeed, build upon as part of their dissertation projects.

Programme module type:	Compulsory for Central and East European Studies Postgraduate Programme
Required for:	MO5811
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour seminar (x 6 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Nethercott
Module teaching staff:	various

MO5811 Masterclass in Central and East European Studies 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The Masterclass is a compulsory, interdisciplinary module designed as an introduction to the study of Central and Eastern Europe, past and present. In addition to a basic grounding in the history of modern and contemporary Central and Eastern Europe (including Russia), the module draws on the expertise of colleagues in International Relations, Film Studies, Modern Languages and Literature, and Art History. The goal is to provide students with an opportunity both to broaden their knowledge through a variety of research methods, and also to identify research questions for themselves, which they may wish to explore in some of the more specialized Optional Modules, or, indeed, build upon as part of their dissertation projects.

Programme module type:	Compulsory for Central and East European Studies Postgraduate programme.
Pre-requisite(s):	MO5810
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour seminar (x 6 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Nethercott
Module teaching staff:	various

One of:

IR5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	5.00 pm - 6.00 pm Thu or 11.00 am - 12.00 noon Fri			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for International Political Theory, International Security Studies, Middle East, Caucasus and Central Asian Security Studies and Peace and Conflict Studies MLitt Postgraduate Programmes and International Relations MRes Programme. Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	TBC

or

MO5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Optional for Central and East European Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Dr J Clark			

Optional modules:

GM5011 German Literary and Cultural Contexts: Turning Points (40)				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module seeks to enable postgraduates actively to acquire advanced knowledge of contexts that have shaped literature and culture in the German-speaking lands from the Middle Ages to the present day. It draws on the expertise of academic teachers in the Department of German, and concentrates on the research-led study of selected turning points in the cultural, literary or intellectual history of the German-speaking lands. The turning points studied will vary but may include: Early Modern print culture, the making of German letters, the 'Sattelzeit' around 1800, urban modernisms around 1900, the Weimar Republic, Stunde Null and the radical contemporary.				
Programme module type:	Compulsory for German Studies Postgraduate Programme. Optional for Central and East European Studies, German and Comparative Literature, and Crossways in Cultural Narratives Postgraduate Programmes.			
Anti-requisite(s):	GM5013			
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A Cusack			
Module teaching staff:	various			

MO5301 History of Imperial Russia 1815-1917

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module examines the final one hundred years of Imperial rule. Beginning with the defeat of Napoleon, it explores social, economic and political change, the emergence of a 'public sphere' in the second half of the nineteenth century, and the rise of opposition movements and ideologies culminating with the collapse of Tsarism in February 1917. In addition, the module will address aspects of culture (notably the 'Golden' and 'Silver' Ages of Russian literature and art), particulary in terms of its role as a 'barometer' of social change at home, but also as a starting point for exploring aspects of Russia's cultural and political relations with her European neighbours.

Programme module type:	Optional module for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorial and other teaching as appropriate
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Nethercott

MO5402 The Soviet Union (1917-1991)

SCOTCAT Credits:	40	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

The emergence and development of the Soviet Union is traced from the Bolshevik Revolution of October 1917, via the period of Stalins dictatorship and the leaderships of Khrushchev and Brezhnev, up to the end of the Gorbachev era which culminated in the dissolution of the Union in 1991. The course studies interlinked political, ideological, social, economic and cultural themes. The role of the Soviet Union on the international stage is also examined.

Programme module type:	Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorial and other teaching as appropriate.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Nethercott

MO5503 Central and Eastern Europe since 1945

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

The collapse of the Soviet sphere of influence in Eastern Europe during 1989, and the subsequent disintegration of the USSR itself, have been among the most dramatic developments of recent years. The pattern of Soviet domination of this region is traced from the end of the Second World War through an examination of both the common and individual responses to this in the nations concerned. Countries studied include former East Germany, Poland, former Czechoslovakia, Hungary, Romania, Bulgaria and former Yugoslavia. Developments after 1989 are also examined.

Programme module type:	Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorial and other teaching as appropriate.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Kamusella

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes.
	Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5605 Themes in American History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will enable postgraduate students to tackle at a conceptually advanced level a selection of the most important issues in the history of North America, from its foundations as European colonies onwards. The module will expose students to several key debates in American historiography by focusing on a series of issues that have especially preoccupied scholars in the field.

Programme module type:	Optional for Environmental History, Modern History and Transnational, Global and Spatial HistoryPostgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G MItchell

MO5606 Perceptions of Central and Eastern Europe

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

Perceptions of Central and Eastern Europe are as diverse as the ethic and cultural characteristics of the region itself, and have undergone significant transformation since the emergence of modern nationalism in the mid-nineteenth century. As the Mitteleuropa of German imperial aspirations gave way to the successor states of the Versailles settlement, then to Soviet-dominated Eastern Europe in a polarised Cold War continent, and, most recently, to the post-Communist "return to Europe", the correspondingly evolving views from the periphery, from Germany and Russian, and from within the region itself offer a rich and challenging subject for advanced historical study.

Programme module type:	Optional for Central and East European Studies, Environmental History, Modern History and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Kamusella

MO5609 Directed Reading in Modern History 2

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2	

Planned timetable:	To be arranged.

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Central and East European Studies, Early Modern History, Environmental History, Modern History, Reformation Studies and The Book. History and Techniques of Analysis Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5610 Themes in Russian Nineteenth- and Twentieth-Century Intellectual History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	

Planned timetable:	To be arranged.

This module serves as an introduction to Russian intellectual culture for postgraduate students taking a taught MLitt in Central and East European Studies. Based on a close reading of sources (in translation and/or in Russian), it analyses a number of key themes in Russian thought with reference to the socio-political contexts in which they first arose as well as their subsequent transformation in the Soviet era. The module also explores the ways in which some of the leit-motifs of pre-Revolutionary intellectual culture have more recently been recovered as a 'resource' by intellectuals and public figures in endeavors to re-articulate the 'authentic' nature of Russian culture in the aftermath of communism.

Programme module type:	Optional for Central and East European Studies, Modern History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Nethercott

MO5621 History in the Making: Theories, Approaches and Practice 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	

Planned timetable:	To be arranged.

The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.

Programme module type:	MO5621 or MO5151 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.
Anti-requisite(s):	MO5601
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Ferris

MO5622 History in the Making: Theories, Approaches and Practice 2

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.

Programme module type:	MO5622 or MO5152 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.		
Pre-requisite(s):	MO5621	**Anti-requisite(s):**	MO5601
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr K Ferris		

RU5011 New Approaches to the Russian Literary Canon (40)

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

Combining a theoretical framework with a number of case studies, this module will explore how the 'Russian literary canon' has been constructed over the past two hundred years. Students will have the opportunity to study a number of works by Russian writers now considered 'canonical' (e.g. Aleksandr Pushkin, Fedor Dostoevsky, Andrei Platonov, Liudmila Ulitskaia), in depth as well as to consider texts that have fallen outside the privileged field of the 'literary', whether for reasons of production, reception, distribution, or promotion. In addition, students will be encouraged to consider how various institutions create and perpetuate notions of canonicity. This module will be taught jointly by members of the Russian Department and will draw on their fields of expertise. It will also take into account the backgrounds of enrolled students. Students taking the module as part of the MLitt in Russian Studies will be expected to complete readings in the original.

Programme module type:	Compulsory for Russian Studies Postgraduate Programme. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for other MLitt students outside Modern Languages, including the MLitt in Central and East European Studies, with permission of both Schools.
Anti-requisite(s):	RU5013
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead
Module teaching staff:	various

RU5014 Specialised Research in Russian Studies				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Planned timetable:	To be arranged.
This module offers students the opportunity to draw on the expertise of the Department of Russian in order to explore a topic of their choice in depth. Potential subjects of study include: the English Novel in Russia; Issues in Russian Cultural Memory; Narratology and the Short Story; Russian Crime Fiction; Russian Romantic Prose; Russian and Polish Modernism; Russian Formalism in context; the Soviet Writing Self; Socialist Realism Inside and Out; Andrei Platonov; Race and Ethnicity in Russian and Russophone Literature; Russian Literary Peripheries; and Russian Cinema in the Putin Era. Students taking the module as part of the MLitt in Russian Studies will be expected to complete readings in the original.	
Programme module type:	Compulsory for Russian Studies Postgraduate Programme.
	Optional for Comparative Literature, Cultural Identity Studies, and Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages, including the MLitt in Central and East European Studies, with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Finer
Module teaching staff:	various

Masters in Early Modern History

Programme Requirements

Early Modern History - MLitt
40 credits from Module List: MO5051 - MO5052 **and** 40 credits from Module List: MO5030 - MO5039 **and** 40 credits from Module List: MO5002 - MO5095 (exc MO5030 - MO5033), MO5602, MO5613, SC5201, HI5011, MO5630 **and** MO5099 (60 credits) **Further requirements** Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

MO5051 Themes and Debates in Early Modern History 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module introduces students to a variety of key debates in early modern history through studying different scholars' approaches to the period. Considering political, social, and cultural aspects of the era, students will evaluate studies informed by social science techniques and changing historiographical approaches. Encompassing Western Christendom and the emerging 'Atlantic world' from the mid fifteenth to mid eighteenth centuries, the module provides a broad based thorough grounding in the major historiographical and historical controversies of the era. Participants will review questions of agricultural, industrial, scientific, and military change; absolutism, power relationships, and intellectual authority; and issues of identity and identities forged through awareness of gender, race, national, and global relationships and connections.				
Programme module type:	Compulsory for Early Modern History Postgraduate Programme.			
Anti-requisite(s):	MO5000			
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours per fortnight			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J Rose			

MO5052 Themes and Debates in Early Modern History 2				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a variety of key debates in early modern history through studying different scholars' approaches to the period. Considering political, social, and cultural aspects of the era, students will evaluate studies informed by social science techniques and changing historiographical approaches. Encompassing Western Christendom and the emerging 'Atlantic world' from the mid fifteenth to mid eighteenth centuries, the module provides a broad based thorough grounding in the major historiographical and historical controversies of the era. Participants will review questions of agricultural, industrial, scientific, and military change; absolutism, power relationships, and intellectual authority; and issues of identity and identities forged through awareness of gender, race, national, and global relationships and connections.

Programme module type:	Compulsory for Early Modern History Postgraduate Programme.			
Pre-requisite(s):	MO5051		**Anti-requisite(s):**	MO5000
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours per fortnight			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J Rose			

MO5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr J Clark

Two of:

MO5030 Early Modern Documents and Sources				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Thu			
This module provides a wide-ranging introduction to the types of source material which researchers on the early modern period may encounter. In studying this module, you will be trained in critical analysis of genres of both textual and material sources. It offers an introduction to methodological commentaries on the nature of such sources, a range of British, European, and global examples of them, and the chance for you to discuss examples drawn from your own particular areas of specialism. The module also provides a guide to analysing modern editions of documents and assessing their reliability. Its training in the variety of material which early modernists may unexpectedly find themselves working with, whatever their specialism, is an excellent complement to the other skills pathways, and important preparation for the MLitt (and any potential doctoral) dissertation.				
Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.			
Co-requisite(s):	Another of MO5030 - MO5039	**Anti-requisite(s):**		MO5012
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J Rose			

MO5031 Latin for Postgraduate Research				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	9.30 am - 11.00 am Mon and Tue			
The three tiers of teaching (beginners, intermediate, and translation) provide suitable levels of engagement with Latin for students with earlier or no experience. The beginners' class covers the fundamentals of Latin grammar and syntax; gives practice in translating separate sentences, short Latin passages written specifically for the class; passages of genuine Latin taken from a wide variety of sources including the Vulgate, the Church Fathers, Mediaeval, and later historians, hymns, and popular verses; surveys various types of Latin literature from late antiquity to the eighteenth century, Latin as a spoken language, pronunciation, and the advantages of Latin as a lingua franca; translation techniques. The intermediate class offers revision and consolidation of the above, introducing students to more complex aspects of grammar and syntax. The advanced translation class uses authors of verse and prose, analyses Latin styles, includes translation into Latin as well as from Latin into English, and offers exercises in recognising and correcting mistakes in modern published authors' versions of Latin texts, and in improving other versions and in correctly transcribing and translating manuscript material.				
Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.			
Co-requisite(s):	Another of MO5030 - MO5039	**Anti-requisite(s):**		MO5012
Learning and teaching methods and delivery:	**Weekly contact**: 2 x fortnightly 1.5-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr P Maxwell-Stuart			

MO5032 Material Bibliography

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	2.00 pm - 4.00 pm Thu			

Material Bibliography is a year-long training option intended for students enrolled on the Book History, Reformation Studies or Early Modern MLitt programmes. It covers the use of the Book as historical evidence, and practical aspects of cataloguing and Special Collections work. Closely supervised seminars will cover: Basic tools? Databases and how to identify hand pressed books; Reading a title page; Latin for book historians; Printers, publishers and booksellers; Paper and format; Collation formulae and pagination, type description; Fingerprints; Refresher - edition vs. copy; Provenance; Binding and Bindings; Workshop - describing books; Databases and bibliometrics. Semester one focuses on group training, semester two on supervised individual practice.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.			
Co-requisite(s):	Another of MO5030 - MO5039	**Anti-requisite(s):**		MO5012
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars or 2.5-hour practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr M McLean			

MO5033 Paleography and Manuscript Studies

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Fri			

This module provides a wide-ranging introduction to the reading and handling of original source material of all types which researchers of the early modern period may encounter. In studying this module, you will gain the skills you need to read early modern handwriting and gain a sense of the nature of European handwriting in the early modern period. You will learn how to create a transcription (to professional standards). The module also provides experience in handling original source materials. This training in the variety of material which early modernists may find themselves working with, whatever their specialism, is an excellent complement to the other skills pathways, and important preparation for the MLitt (and any potential doctoral) dissertation.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.			
Co-requisite(s):	Another of MO5030 - MO5039	**Anti-requisite(s):**		MO5012
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr M Connolly			

Optional modules:

MO5004 War, State and Society in Early Modern Europe and New Worlds

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will explore the transformations in the size, scale and scope of European warfare between the late fifteenth and late eighteenth centuries. Such developments as the proliferation of gunpowder weaponry and the transformation of fortifications, considered by some historians as a "Military Revolution", altered the nature of warfare but also had considerable effects, often detrimental, on the state, society and good order. Moreover, Europeans exported their arts of war to other continents in competition with each other, and their encounters with other peoples in the Mediterranean basin, the Americas and East Asia led to further military adaptation. The module will investigate the military developments of the period on land and to a lesser extent at sea, but also the effects they had on the state and on civilians.

Programme module type:	Optional for Early Modern History, Reformation Studies, Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

MO5007 The European Renaissance

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

The Italian Renaissance has been seen as a turning point in European history. Writing in the nineteenth century, Jakob Burckhardt famously defined it as a golden age, marked above all by individualism, a love of ancient classics, amorality and antipathy to Christianity. Northern Europe, in the view of Burckhardt and his successor Johann Huizinga, was, by contrast, a society in decline. This module will compare and contrast the Italian and Northern Renaissances, examining their mediaeval origins and exploring themes such as religion, humanism, court and urban life, in order to test this traditional interpretation. Throughout, we will make extensive use of primary sources, both textual and visual, including works by Petrarch, Thomas à Kempis, Lorenzo Valla, Erasmus, Baldassare Castiglione, Thomas More, Hans Holbein, and Albrecht Dürer.

Programme module type:	Optional for Early Modern History and Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M McLean

MO5008 The Creation of an Atlantic World

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will introduce students to the concept of the Atlantic World, a unit of analysis used by historians to understand the changes wrought in the western hemisphere by the British, French, and Iberian discovery and settlement of the Americas, and by Europe's slave trade with Africa. Through study of the economic, social, intellectual, and legal implications of the establishment of this new field of human interaction between 1500-1800, students will gain an appreciation of the impact of these discoveries on old and new world societies alike. Discussion will also address the benefits and limitations of the idea of an Atlantic World for the study of the early modern era.

Programme module type:	Optional for Early Modern History and and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Hart

MO5009 Law, Justice and Community: Court Records and British Society (1400 - 1800)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

More than a century ago the greatest historian of English law, F. W. Maitland, wrote that 'legal documents of the most technical kind, are the best, often the only evidence that we have for economic and social history'. This module acts as an introduction to the single most important source for early-modern British social history: the records of law courts, which played a far more central role in everyday life than they do now. Students will explore the documentation produced by a wide range of British courts and look at their uses for the social historian. The aim is to provide students with a broad awareness and understanding of how particular resources have been and might be used in actual research.

Programme module type:	Optional for Early Modern History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R A Houston

MO5010 Political Thought and Intellectual History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will offer a rich and varied graduate-level introduction to the political theory and intellectual history of the early modern period. There will be an emphasis upon English-speaking examples but always set within the context of broader European developments. Particular themes will be explored through the study of key texts and will include explanations of the relationship between state and society, theories of legitimacy and political obligation, accounts of the origins of government, and emerging interest in specific aspects of governmental activity.

Programme module type:	Optional for Early Modern History, Reformation Studies and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Rose

MO5023 Disease and Environment (c.1500 - c.2000) (40)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Before they are members of political and religious groupings, humans are biological entities. As such, throughout history humans have had to devise complex strategies to cope with fundamental biological factors. Focusing primarily upon an Anglo-American context, this course examines the manner in which sickness and death have shaped human history - both biologically and culturally - over the past 500 years. Consideration of patients' and practitioners' expectations, and of the changing meanings of cure, treatment, and care, encourages students to appreciate changing attitudes to health, hygiene, healing and illness within the social history of medicine. Moreover, through an examination of medical practitioners, hospitals, quarantine, inoculation, imperialism, urbanisation, and industrialisation, students will gain an appreciation of the historical relationships between the environment and disease.

Programme module type:	Optional for Environmental History and Transnational, Global and Spatial History Postgraduate Programmes.
Anti-requisite(s):	MO5223
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes.
	Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5613 History of Modern Science

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

Science and technology are key elements of modernity, and, of course, they have a history. This module will introduce students to core themes in the history of science from the Scientific Revolution onwards. Students will read a mixture of primary and secondary sources, and will be challenged to think about changes over time in such issues as: the definition and cultural status of 'science'; the status and role of its practitioners; the motivations for the pursuit of natural knowledge; the methods employed for making and communicating knowledge; and the spaces and sites of knowledge production and communication. Sessions will usually be co-taught by members of staff who bring different perspectives, cases and period-expertise to the discussion.

Programme module type:	Optional for Early Modern History, Environmental History, Intellectual History and Modern History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Fyfe

MO5630 Directed Reading in Modern History (20)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Early Modern History, Environmental History and Modern History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour tutorial (fortnightly)
Assessment pattern:	Coursework (2 essays) = 100%
Module coordinator:	Dr JFM Clark

SC5201 Religion and Identity in Early Modern Britain

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The purpose of this module is to explore the significance of the Reformation in reshaping the ways in which Scots and Englishmen perceived themselves as members of distinct Protestant churches and communities in the sixteenth and seventeenth centuries and the extent to which such self-definitions promoted or challenged ideas of British religious unity and integration. It thus examines the emergence of separate ecclesiastical structures and identities in the decades before the Anglo-Scottish union of 1603 and the religious conflicts that arose from the Stuart monarchy's subsequent attempts to impose a highly contested understanding of British ecclesiastical conformity on their Scottish and English kingdoms.

Programme module type:	Optional for Early Modern History, Scottish Historical Studies or Reformation Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Mason

HI5011 Directed Reading in History (20)

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1 or 2
Planned timetable:	TBC			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Environmental History, Early Modern History and Modern History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour seminar (fortnightly)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

Masters in Environmental History

Programme Requirements

Environmental History - MLitt
((MO5621 (20 credits) **and** MO5622 (20 credits)) **or** (MO5151 (20 credits) **and** MO5152 (20 credits)) **and** 80 credits from Module List: (EH5003 or EH5102), (MO5023 or MO5223), (EH5004 or EH5101) **and** 40 credits from Modules: EH5003,EH5102,EH5004,EH5101,GE5051,MO5223,MO5023,MO5051,MO5152, MO5161,MO5602, MO5609,MO5604-MO5606,MO5613,MO5630 **and** EH5099 (60 credits))   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

EH5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for Environmental History MLitt Postgraduate Programme			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Dr J Clark			

EITHER:

MO5621 History in the Making: Theories, Approaches and Practice 1					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**		1
Planned timetable:	To be arranged.				
The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.					
Programme module type:	MO5621 or MO5151 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.				
Anti-requisite(s):	MO5601				
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr K Ferris				

AND:

MO5622 History in the Making: Theories, Approaches and Practice 2					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**		2
Planned timetable:	To be arranged.				
The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.					
Programme module type:	MO5622 or MO5152 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.				
Pre-requisite(s):	MO5621		**Anti-requisite(s):**		MO5601
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr K Ferris				

OR:

MO5151 Global Times - Plural Spaces 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This core module for the MLitt in Transnational and Spatial History offers a strong foundation in the major approaches to comparative and transnational history as well as the emerging field of spatial history. This module introduces the origins of these new ways of looking at the past, as well as some of the major methodological challenges faced. The focus then shifts to consider transnational agents, networks, and new approaches to doing history between the micro and macro scales.				
Programme module type:	Compulsory for Transnational, Global and Spatial History Postgraduate Programme Optional for Environmental History Postgraduate Programme			
Required for:	MO5152			
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr K Lawson			

AND

MO5152 Global Times - Plural Spaces 2				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This core module for the MLitt in Transnational and Spatial History offers a strong foundation in the major approaches to comparative and transnational history as well as the emerging field of spatial history. This module explores a variety of understandings of spatial history, including the idea of mental maps, the study of landscapes, places of memory and spatial practices.				
Programme module type:	Compulsory for Transnational, Global and Spatial History Postgraduate Programme Optional for Environmental History Postgraduate Programme			
Pre-requisite(s):	MO5151			
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr K Lawson			

Optional modules:

EH5003 Environmental History: Nature and the Western World (1800 - 2000)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module studies environmental history over the past two centuries in an international context. It examines attitudes to nature and animals, species history (extinctions and introductions), national parks and nature reserves, the history of environmentalism and nature conservation, the history of countryside recreation and tourism, and the history of current problems such as pollution and pesticide use. It will draw on examples taken from the USA, southern Africa, Australasia and Great Britain.

Programme module type:	Optional for Environmental History and Transnational, Global and Spatial History Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

OR

EH5102 Environmental History: Nature and the Western World (1800-2000) (20)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

Environmental history is the study of human interaction with the natural world through time. Prior to the nineteenth century, nature was seen as an integral part of history. Similarly, this module encourages students to view nature not as a static backdrop, but as a vital element of history. Focusing principally upon Britain and North America from the eighteenth century to present, this module explores the history of human interaction with the natural world. It seeks to understand how politics and religious beliefs have influenced answers to persistent questions - such as, How old is the earth? What is an animal? What is a human? What is life? Moreover, the complex mixture of global exploration and trade, agricultural and industrial innovation, and burgeoning population will be assessed in relation to concerns over the degradation of the environment.

Programme module type:	Optional for MLitts in Environmental History, Modern and Contemporary Literature and Culture, and MSc in Sustainable Development.
Anti-requisite(s):	EH5003, MO3314
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

EH5004 Environmental Disasters: Crisis, Catastrophe, and Risk in the Modern World (1755 to Present) (40)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

In the early twenty-first century, the fate of 'civilisation' seems caught between the inevitability of progress and the unavoidability of collapse. Increasingly, this fate has been tied to human interaction with the non-human natural world. This module offers helpful historical insight into the existential crises precipitated by human interaction with the natural world. But both history and evolution can be characterised as combinations of gradual and sudden change. Through the study of past environmental disasters, this module seeks to understand historical continuities and discontinuities. Bookended by the Lisbon earthquake of 1755 and Hurricane Katrina of 2005, the module explores the nature of 'natural' disasters; and the social and cultural factors that shaped and framed them. Moreover, it considers the ways in which an increasingly industrial, urban, and 'global' world may have generated distinctly 'modern' risks.

Programme module type:	Optional for Environmental History, Modern History, and Transnational, Global and Spatial History, and Sustainable Development.
Anti-requisite(s):	EH5101
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark
Module teaching staff:	Dr J Clark

OR

EH5101 Environmental Disasters: Crisis, Catastrophe, and Risk in the Modern World (1755 to Present) (20)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

In the early twenty-first century, the fate of 'civilisation' seems caught between the inevitability of progress and the unavoidability of collapse. Increasingly, this fate has been tied to human interaction with the non-human natural world. This module offers helpful historical insight into the existential crises precipitated by human interaction with the natural world. But both history and evolution can be characterised as combinations of gradual and sudden change. Through the study of past environmental disasters, this module seeks to understand historical continuities and discontinuities. Bookended by the Lisbon earthquake of 1755 and Hurricane Katrina of 2005, the module explores the nature of 'natural' disasters; and the social and cultural factors that shaped and framed them. Moreover, it considers the ways in which an increasingly industrial, urban, and 'global' world may have generated distinctly 'modern' risks.

Programme module type:	Optional for Environmental History MLitt and Sustainable Development MSc Postgraduate Programmes
Anti-requisite(s):	EH5004
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

MO5023 Disease and Environment (c.1500 - c.2000) (40)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Before they are members of political and religious groupings, humans are biological entities. As such, throughout history humans have had to devise complex strategies to cope with fundamental biological factors. Focusing primarily upon an Anglo-American context, this course examines the manner in which sickness and death have shaped human history - both biologically and culturally - over the past 500 years. Consideration of patients' and practitioners' expectations, and of the changing meanings of cure, treatment, and care, encourages students to appreciate changing attitudes to health, hygiene, healing and illness within the social history of medicine. Moreover, through an examination of medical practitioners, hospitals, quarantine, inoculation, imperialism, urbanisation, and industrialisation, students will gain an appreciation of the historical relationships between the environment and disease.	
Programme module type:	Optional for Environmental History and Transnational, Global and Spatial History Postgraduate Programmes.
Anti-requisite(s):	MO5223
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

OR

MO5223 Disease and Environment (c.1500 - c.2000) (20)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Before they are members of political and religious groupings, humans are biological entities. As such, throughout history humans have had to devise complex strategies to cope with fundamental biological factors. Focusing primarily upon Anglo-American context, this module examines the manner in which sickness and death have shaped human history - both biologically and culturally - over the past 500 years. Consideration of patients' and practitioners' expectations, and of the changing means of cure, treatment, and care, encourages students to appreciate changing attitudes to health, hygiene, healing and illness within the social history of medicine. Moreover, through an examination of medical practitioners, hospitals, quarantine, inoculation, imperialism, urbanisations, and industrialisation, students will gain an appreciation of the historical relationships between environment and disease.	
Programme module type:	Optional for Environmental History
Anti-requisite(s):	MO5023
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

If necessary, further 40 credits from:

EH5003 Environmental History: Nature and the Western World (1800 - 2000)

EH5102 Environmental History: Nature and the Western World (1800-2000) (20)

EH5004 Environmental Disasters: Crisis, Catastrophe, and Risk in the Modern World (1755 to Present) (40)

EH5101 Environmental Disasters: Crisis, Catastrophe, and Risk in the Modern World (1755 to Present) (20)

MO5023 Disease and Environment (c.1500 - c.2000) (40)

MO5223 Disease and Environment (c.1500 - c.2000) (20)

MO5151 Global Times - Plural Spaces 1

MO5152 Global Times - Plural Spaces 2

For details see above

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes.
	Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5606 Perceptions of Central and Eastern Europe

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

Perceptions of Central and Eastern Europe are as diverse as the ethic and cultural characteristics of the region itself, and have undergone significant transformation since the emergence of modern nationalism in the mid-nineteenth century. As the Mitteleuropa of German imperial aspirations gave way to the successor states of the Versailles settlement, then to Soviet-dominated Eastern Europe in a polarised Cold War continent, and, most recently, to the post-Communist "return to Europe", the correspondingly evolving views from the periphery, from Germany and Russian, and from within the region itself offer a rich and challenging subject for advanced historical study.

Programme module type:	Optional for Central and East European Studies, Environmental History, Modern History and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Kamusella

MO5609 Directed Reading in Modern History 2

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Central and East European Studies, Early Modern History, Environmental History, Modern History, Reformation Studies and The Book. History and Techniques of Analysis Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5613 History of Modern Science

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

Science and technology are key elements of modernity, and, of course, they have a history. This module will introduce students to core themes in the history of science from the Scientific Revolution onwards. Students will read a mixture of primary and secondary sources, and will be challenged to think about changes over time in such issues as: the definition and cultural status of 'science'; the status and role of its practitioners; the motivations for the pursuit of natural knowledge; the methods employed for making and communicating knowledge; and the spaces and sites of knowledge production and communication. Sessions will usually be co-taught by members of staff who bring different perspectives, cases and period-expertise to the discussion.

Programme module type:	Optional for Early Modern History, Environmental History, Intellectual History and Modern History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Fyfe

MO5630 Directed Reading in Modern History (20)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Early Modern History, Environmental History and Modern History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour tutorial (fortnightly)
Assessment pattern:	Coursework (2 essays) = 100%
Module coordinator:	Dr JFM Clark

Masters in Intellectual History

Programme Requirements

Intellectual History - MLitt	
	80 credits from Module List: IH5001 - IH5003 **and** MO5602 (40 credits) **and** MO5099 (60 credits) **Further requirements** Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

IH5001 Current Controversies in Intellectual History					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
This module enables students to scrutinise central historiographical disputes that continue to determine the nature and practice of intellectual history. The aim is to provide students with a detailed knowledge of the text and the controversy that it generated, with a view to providing the student with the skills to understand and evaluate the arguments presented in the best work in intellectual history published in recent years. The themes include topics drawn from the following list (the topics taught each year will depend upon discussion of what the most important topics of controversy are): John Pocock: Machiavellian moments; The decline and fall of states; Quentin Skinner: Liberty and liberalism; The Concept of Liberty; Reinhart Koselleck: Crisis and revolution; Franco Venturi: Utopia and Reform; Leo Strauss: Ancients and moderns; Istvan Hont: Commercial society and the jealousy of trade; Richard Sher: Enlightenment and the book; Michael Sonenscher: Enlightenment and revolution; Knud Haakonssen: Natural law and natural rights; Michel Foucault: Madness and civilisation; John Dunn: Democracy and rationality; Richard Tuck: Philosophy and government;; Lorraine Daston: Reason, wonder and nature; Eugene Genovese: Slavery and the southern tradition; Jonathan Rose: Intellectual life of the working classes; Steven Shapin and Simon Schaffer: Hobbes, Boyle and the experimental life; James Secord: Natural history of creation.					
Programme module type:	Compulsory for Intellectual History Postgraduate Programme.				
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Prof R Whatmore				

IH5002 Turning Points in the History of Ideas

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module is concerned with periods of history when there was rapid and turbulent intellectual and philosophical change. The module studies the nature of the change through the works of the authors involved in the transformation of thought and through seminal commentaries upon them. Students will acquire knowledge of how and why ideas change and of the consequences of such change. They will be encouraged to place ideas in their historical context, and to reflect upon the reasons for intellectual change and the broader reception and subsequent understanding of transformative philosophies. Themes include: Plato/Aristotle and the origins of Western philosophy; Cynics, Stoics and Sceptics; Morality and Empire at Rome; Reason and religion: Christianity and barbarism; Local and global law: the example of Rome; Machiavellianism and amoral philosophy; Commercial society and the passions and the interests; Shaping character: the idea of education; 'Gentle' commerce and perpetual peace; The Jealousy of trade and international relations; Civil science and the concept of liberty; Natural slavery and natural rights; Socialism and utopia; Civilization and democracy; Equality and capitalism.

Programme module type:	Compulsory for Intellectual History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Whatmore

IH5003 The Theory and Practice of Intellectual History

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces the student to the methods of intellectual history through a historical overview of the actual practice of intellectual history with special emphasis on the methodological debates of the last half century. Particular attention is paid to the "Cambridge School" of intellectual historians (Laslett, Pocock, Dunn, Skinner et al.), set against the backdrop of contributions to intellectual history by Michel Foucault in France, Reinhart Koselleck in Germany, Franco Venturi in Italy, and the pragmatists in America. This is complemented by case studies of explanation and understanding in intellectual history, including the challenge of post-modernism and Straussianism among others. Through these, the variety of intellectual history in philosophy, political theory, literature, science, economics and theology is illustrated.

Programme module type:	Compulsory for Intellectual History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Whatmore

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes.
	Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%

MO5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes
	One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate
	Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr J Clark

Masters in Legal and Constitutional Studies

Programme Requirements

Legal and Constitutional Studies - MLitt
LC5001 (20 credits) **and** LC5002 (20 credits) **and** LC5026 (20 credits) **and** (LC5021 (20 credits) **or** LC5022 (20 credits)) **and** (LC5023 (20 credits) **or** ME5012 (20 credits) **or** (MS5123 and MS5124) **and** (LC5024 (20 credits) **or** LC5025 (20 credits)) **and** LC5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

LC5001 The Idea of Law					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
This one-semester core module introduces fundamental concepts, questions and analytical frameworks relevant to legal, historical and constitutional research. Taught by the module co-ordinator supported by experts trained in a variety of different disciplinary approaches, topics will include law and statehood; law and formalism; law and social science; colonialism, empire and law; 'law and/in society'; and 'global law'. Emphasis will be placed throughout the module on developing analytical and critical research skills, including teaching students how to frame relevant research questions and independent-study projects.					
Programme module type:	Compulsory for Legal and Constitutional Studies Taught Postgraduate Programme				
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Prof C Humfress				
Module teaching staff:	Prof C Humfress, Prof J Hudson, Prof A Lang, Prof N Rengger				

LC5002 Comparative Studies in Legal and Constitutional Research

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

Comparative Studies in Legal and Constitutional Research provides a forum for students to develop, present, and write on a particular field or topic, drawing on methodological ideas from Semester 1 modules. Students will receive further guidance on the preparation and presentation (oral and written) of a research subject, including Masters' level argument-construction skills. They will then conduct research in their chosen field, as developed with guidance from those involved in teaching the module. Presentations to the whole class will provide not just feedback on the particular topic, but a forum for an exploration of the possibilities of comparison and comparative methodologies within legal and constitutional research. The module also provides preparation for the writing of dissertations; the research topic may lead into, but must be distinct from, that of the dissertation.

Programme module type:	Compulsory for Legal and Constitutional Studies Taught Postgraduate Programme
	Optional for Intellectual History, International Relations Taught Postgraduate Programme
Pre-requisite(s):	LC5001
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 7 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof C Humfress
Module teaching staff:	Prof C Humfress, Prof J Hudson, Prof A Lang

LC5026 Special Topic in Legal and Constitutional Studies (2)

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module provides students with the opportunity for detailed research and tuition within a specialized field of their choice. It thereby complements the other, broader modules being taken at the same time. It also provides for individual or very small group supervision.

Following discussions with the student, the MLitt co-ordinator will appoint a supervisor. The supervisor will be responsible for helping the student find an appropriate topic; for bibliographic help; for holding regular meetings to allow discussion and feedback; and for expert assessment of written work, with the assistance of a second marker).

Programme module type:	Compulsory for Legal and Constitutional Studies Taught Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour tutorial (x 6 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof C Humfress, Prof A Lang
Module teaching staff:	Prof C Humfress, Prof A Lang, Prof J Hudson, Prof N Rengger, Prof C Kidd, Dr A Bower, Dr M Peter

LC5099 Dissertation in Legal and Constitutional Studies

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides students with the opportunity for detailed research within a specialized field of their choice. Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by a specified late August deadline.

Programme module type:	Compulsory for Legal and Constitutional Studies MLitt Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 9 hours to be arranged with supervisor
Assessment pattern:	Dissertation = 100%
Module coordinator:	Prof C Humfress, Prof A Lang
Module teaching staff:	Prof C Humfress, Prof A Lang, Prof N Rengger, Prof J Hudson, Prof R Houston, Prof C Kidd, Prof K Haakonssen, Dr A Bower, Dr M Peter

Optional modules:

One of:

LC5021 Approaches to Legal History

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module provides students with a grounding in particularly influential authors and works on the history of law, and also requires critical reflection on method. It will provide students with a detailed knowledge of certain fundamental texts and the debates that they generated, thereby helping them to develop the skills needed to understand and evaluate the arguments presented by legal historians since the nineteenth century. Themes covered will include the common law tradition of legal history stretching back to Maitland; writings on law and society, including those of marxist historians such as E.P. Thompson; and the influence of social anthropology on the historical study of disputes.

Programme module type:	Optional for Early Modern History, Intellectual History, Legal and Constitutional Studies, Mediaeval History, Mediaeval Studies Taught Postgraduate Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Hudson
Module teaching staff:	Prof J Hudson, Prof C Humfress, Prof C Kidd, Prof R Houston

OR

LC5022 Approaches to International Law				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module will explore the philosophy of international law. Its focus will be less on the history and more on underlying philosophical issues arising from the nature and practice of international law.				
Programme module type:	Optional for Intellectual History, International Political Theory, Legal and Constitutional Studies Taught Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof N Rengger			

One of:

LC5023 Special Topic in Legal and Constitutional Studies (1)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module provides students with the opportunity for detailed research and tuition within a specialised field of their choice. It thereby complements the other, broader modules being taken at the same time. It also provides for individual or very small group supervision.				
Following discussions with the student, the MLitt co-ordinator will appoint a supervisor. The supervisor will be responsible for helping the student find an appropriate topic; for bibliographic help; for holding regular meetings to allow discussion and feedback; and for expert assessment of written work, with the assistance of a second marker).				
Programme module type:	Optional for Legal and Constitutional Studies			
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour tutorial (x 6 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof C Humfress, Prof A Lang			
Module teaching staff:	Prof J Hudson, Prof C Humfress, Prof A Lang, Prof N Rengger, Prof R Houston, Prof C Kidd, Dr A Bower, Dr M Peter			

OR

ME5012 Sources and Source Criticism (20)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module addresses interpretation and criticism of mediaeval sources. It concentrates upon a selected central body of documentation and its associated problems and introduces appropriate skills training. Both sutdents already familiar with the challenge of mediaeval sources and newcomers are welcome.				
Programme module type:	Optional for Mediaeval Studies Postgraduate Programme Optional for Legal and Constitutional Studies Postgraduate Programme			
Anti-requisite(s):	MS5025			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar and individual tutorials as required.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Hudson			

OR BOTH

MS5123 Latin for Mediaeval Studies 1				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Mon (flexible)			
This module provides an introduction to Latin language for the study of the Middle Ages.				
Programme module type:	Optional for Mediaeval Studies, Legal and Constitutional Studies Postgraduate programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework (Pass / Fail) = 100%			
Module coordinator:	Prof B Bildhauer			

AND

MS5124 Latin for Mediaeval Studies 2				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Mon (flexible)			
This module provides an introduction to Latin language for the study of the Middle Ages.				
Programme module type:	Optional for Mediaeval Studies, Legal and Constitutional Studies Postgraduate programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework (Pass / Fail) = 100%			
Module coordinator:	Prof B Bildhauer			

Masters in Mediaeval History

Also Postgraduate Diploma and MPhil

Programme Requirements

Mediaeval History - MLitt
40 credits from Module List: ME5203 - ME5204 **and** 40 credits from Module List: (ME5201 and ME5202) or SC5202 **and** 20 credits from Module List: ME5105 - ME5106 **and** (20 credits from Module List: HI5104 - HI5105 **or** 20 credits from Arabic, French, German, Italian, Spanish options depending on student's proficiency) **and** ME5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

ME5203 Sources and Source Criticism 1					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	TBC				
This core module addresses interpretation and criticism of mediaeval sources, and is complemented in semester two by ME5204. It concentrates upon a selected central body of documentation and its associated problems and introduces appropriate skills training. Source training is completed in semester two in ME5204 by an extended paper, together with training in seminar presentation and discussion skills.					
Programme module type:	Compulsory for Mediaeval History Postgraduate Programme.				
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Prof J Hudson				

ME5204 Sources and Source Criticism 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

This core module addresses interpretation and criticism of mediaeval sources. It complements ME5203, and completes the relevant skills and source training by an extended paper, together with training in seminar presentation and discussion skills.

Programme module type:	Compulsory for Mediaeval History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 10 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Hudson

ME5105 An Introduction to Palaeography with Codicological and Manuscript Studies 1

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (workshop), 12.00 Mon (lecture)			

This module is primarily a course in palaeography. Classes will be both practical (devoted to 'hands-on' use of documents) and theoretical in nature (providing background information, hints on the characteristics of different hands, and teaching on related aspects of archival practice and codicology). The course traces the development of mainstream European handwriting styles from the late Roman period to the start of the twelfth century. Where possible, teaching is based around original sources from the archival collections of the University Library.

Programme module type:	Compulsory for Mediaeval History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour per week (either lecture or workshop)
Assessment pattern:	Coursework = 80%, Practical Examination = 20%
Module coordinator:	Dr M Connolly
Module teaching staff:	Dr M Connolly, Mrs R Hart

ME5106 An Introduction to Palaeography with Codicological and Manuscript Studies 2

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (workshop), 12.00 Mon (lecture)			

This module will develop skills in palaeography and codicology. Classes will be both practical (devoted to 'hands-on' use of documents) and theoretical in nature (providing background information, hints on the characteristics of different hands, and teaching on related aspects of archival practice and codicology). We trace the development of mainstream European handwriting styles from the twelfth century to the beginning of the sixteenth century. Where possible, treaching is based around original sources from the archival collections of the University Library.

Programme module type:	Compulsory for Mediaeval History Postgraduate Programme.
Pre-requisite(s):	ME5105
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour per week (either lecture or workshop)
Assessment pattern:	Coursework = 80%, Practical Examination = 20%
Module coordinator:	Dr M Connolly
Module teaching staff:	Dr M Connolly, Mrs R Hart

ME5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by a specified date late in August.				
Programme module type:	Compulsory for Mediaeval History MLitt Postgraduate Programme One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Programme. One of ME5099, MO5099 or IR5099 is compulsory for Strategic Studies.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision according to School guidelines			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Prof J Hudson			

ME5201 Special Topic in Mediaeval History 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			
This module is a detailed study of a mediaeval topic of the student's own choice which, as appropriate, will include tutorials with a designated tutor.				
Programme module type:	Compulsory for Mediaeval History Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 6 x 1.5-hour one-to-one tutorials or equivalent.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Hudson			

ME5202 Special Topic in Mediaeval History 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			
This module is a detailed study of a mediaeval topic of the student's own choice which, as appropriate, will include individual tutorials with a designated tutor.				
Programme module type:	Compulsory for Mediaeval History Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 6 x 1.5-hour one-to-one tutorials or equivalent.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Hudson			

20 credits: HI5104 and HI5105, or Arabic (AR), French (FR), German (GM), Italian (IT), Spanish (SP) language modules at the level appropriate to the student's level of proficiency.)

HI5104 Historical Sources and Skills 4

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Mon (flexible)			

The aim of this module is to give students a chance to acquire a technical skill crucial for their research plans, not just for the taught postgraduate programme but also with a view to further doctoral work. Students can choose from several available training options, among them training in a number of relevant languages (incl. Latin and Arabic) and advanced bibliography.

Programme module type:	Optional for Mediaeval History, and Scottish Historical Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework (Pass / Fail) = 100%
Module coordinator:	Prof J Hudson

HI5105 Historical Sources and Skills 5

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Mon (flexible)			

The aim of this module is to give students a chance to acquire a technical skill crucial for their research plans, not just for the taught postgraduate programme but also with a view to further doctoral work. Students can choose from several available training options, among them training in a number of relevant languages (incl. Latin and Arabic) and advanced bibliography.

Programme module type:	Optional for Mediaeval History, and Scottish Historical Studies Postgraduate Programmes.
Co-requisite(s):	IN TAKING THIS MODULE, YOU ARE NORMALLY EXPECTED TO ALSO TAKE A 20-CREDIT LANGUAGE MODULE.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Hudson

Masters in Mediaeval Studies

Programme Requirements

Mediaeval Studies - MLitt
40 credits from Module List: MS5101 - MS5102 **and** (20 credits from Module List: MS5123 - MS5124 **or** 40 credits from Module List: MS5021 - MS5022) a**nd** (60 credits from Module List: MS5121 - MS5122, MS5024, (MS5025 or ME5012), MS5026 - MS5027 **and** MS5099 (60 credits) **Further requirements** Choose 180 credits in academic year Students that have taken MS5123 and MS5124 normally take MS5121 and MS5122. MS5025 cannot be taken with ME5012.

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

MS5101 Approaches to Mediaeval Studies 1					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**		1
Planned timetable:	12.00 noon - 2.00 pm Tue.				
The module is structured thematically in order to cover a range of themes essential to understanding multi-disciplinary approaches to the Middle Ages. Each seminar will explore a broad issue from a variety of disciplinary and theoretical perspectives, using selected texts, images and artifacts to anchor discussion.					
Programme module type:	Compulsory for Mediaeval Studies Postgraduate programme				
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Prof B Bildhauer				

MS5102 Approaches to Mediaeval Studies 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon - 2.00 pm Tue.			
The module is structured thematically in order to cover a range of themes essential to understanding multi-disciplinary approaches to the Middle Ages. Each seminar will explore a broad issue from a variety of disciplinary and theoretical perspectives, using selected texts, images and artifacts to anchor discussion.				
Programme module type:	Compulsory for Mediaeval Studies Postgraduate programme			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 11 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof B Bildhauer			

MS5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
A 15,000-word interdisciplinary dissertation, to be written under the supervision of teaching staff, who will advise on the choice of subject and provide guidance throughout the research process. To be submitted by the deadline in the second half of August.				
Programme module type:	Compulsory for Mediaeval Studies MLitt Postgraduate Programme			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	TBC			

Either:

MS5123 Latin for Mediaeval Studies 1

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Mon (flexible)			
This module provides an introduction to Latin language for the study of the Middle Ages.				
Programme module type:	Optional for Mediaeval Studies, Legal and Constitutional Studies Postgraduate programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework (Pass / Fail) = 100%			
Module coordinator:	Prof B Bildhauer			

AND

MS5124 Latin for Mediaeval Studies 2				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Mon (flexible)			
This module provides an introduction to Latin language for the study of the Middle Ages.				
Programme module type:	Optional for Mediaeval Studies, Legal and Constitutional Studies Postgraduate programmes			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework (Pass / Fail) = 100%			
Module coordinator:	Prof B Bildhauer			

OR:

MS5021 Core Language and Text Skills 1 (Greek or Arabic)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
An optional module providing an introduction to one of the core languages for studying the Middle Ages.				
Programme module type:	Optional for Mediaeval Studies Postgraduate Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar each week.			
Assessment pattern:	Pass/Fail			
Module coordinator:	TBC			

AND

MS5022 Core Language and Text Skills 2 (Greek or Arabic)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
An optional module providing an introduction to one of the core languages for studying the Middle Ages.				
Programme module type:	Optional for Mediaeval Studies Postgraduate Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 1 seminar each week.			
Assessment pattern:	Pass/Fail			
Module coordinator:	TBC			

Optional modules:

MS5121 An Introduction to Palaeography with Codicological and Manuscript Studies 1

SCOTCAT Credits:	10	SCQF Level 11	Semester:	1
Planned timetable:	12.00 noon Mon (Lecture) 11.00 am Mon (practical)			

This is primarily a course in palaeography. Classes will be both practical (devoted to 'hand-on' use of documents) and theoretical in nature (providing background information, hints on the characteristics of different hands, and teaching on related aspects of archival practice and codicology). The course traces the development of mainstream European handwriting styles from the late Roman period to the start of the twelfth century. Where possible, teaching is based around original sources from the archival collections of the University Library.

Programme module type:	Optional module for MLitt in Mediaeval Studies
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour per week (either lecture or workshop)
Assessment pattern:	Coursework = 80%, Practical Examination = 20%
Module coordinator:	Dr M Connolly
Module teaching staff:	Dr M Connolly, Mrs R Hart

MS5122 An Introduction to Palaeography with Codicological and Manuscript Studies 2

SCOTCAT Credits:	10	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am Mon (practical classes), 12.00 noon Mon (lectures)			

This module will develop skills in palaeography and codicology. Classes will be both practical (devoted to 'hands-on' use of documents) and theoretical in nature (providing background information, hints on the characteristics of different hands, and teaching on related aspects of archival practice and codicology). We trace the development of mainstream European handwriting styles from the twelfth century to the beginning of the sixteenth century. Where possible, teaching is based around original sources from the archival collections of the University Library.

Programme module type:	Optional for Mediaeval Studies
Pre-requisite(s):	MS5122
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour per week (either lecture or workshop)
Assessment pattern:	Coursework = 80%, Practical Examination = 20%
Module coordinator:	Dr M Connolly
Module teaching staff:	Dr M Connolly, Mrs R Hart

MS5024 Mediaeval Language

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1 & 2 (taught twice)
Planned timetable:	To be arranged.			

An optional module providing an introduction to one mediaeval language. Grounding in the grammar of and translation from the language will be acquired with the help of grammar exercises and translation practice on original texts. The aim is to get all students to an acceptable level of proficiency in reading and translation. Sufficient prior knowledge of the language to embark on the module at an apropriate level may be requested. Time and students' linguistic expertise permitting, some literary contextualisation of the texts studied and translated may also be included. The languages normally available include Classical Arabic, Classical Armenian, Old English, Mediaeval French, Middle High German, Old Irish, Old Norse, Classical Persian, Middle Scots and Turkish.

Programme module type:	Compulsory for Middle Eastern History (unless undergraduate language modules are taken) Optional for Mediaeval Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

Either:

MS5025 Discipline Skills

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This is a specialised module introducing students to one particular discipline within mediaeval studies. This can either be mediaeval art history, mediaeval English literature, mediaeval French language and literature, mediaeval German language and literature, mediaeval history, or mediaeval Italian literature. Both students already familiar with the discipline and newcomers are welcome.

Programme module type:	Optional for Mediaeval Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

OR:

ME5012 Sources and Source Criticism (20)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module addresses interpretation and criticism of mediaeval sources. It concentrates upon a selected central body of documentation and its associated problems and introduces appropriate skills training. Both sutdents already familiar with the challenge of mediaeval sources and newcomers are welcome.

Programme module type:	Optional for Mediaeval Studies Postgraduate Programme
	Optional for Legal and Constitutional Studies Postgraduate Programme
Anti-requisite(s):	MS5025
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar and individual tutorials as required.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Hudson

MS5026 Directed Reading in Mediaeval Studies 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module is a detailed study of a Mediaeval topic of the student's own choice taught by tutorials with one or more colleagues in the participating Schools.

Programme module type:	Optional for Mediaeval Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

MS5027 Directed Reading in Mediaeval Studies 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is a detailed study of a Mediaeval topic of the student's own choice taught by tutorials with one or more colleagues in the participating Schools.

Programme module type:	Optional for Mediaeval Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

Masters in Middle Eastern History

Programme Requirements

Middle Eastern History - MLitt
MH5101 (40 credits) **and** (80 credits from Module List: MH5301, MH5302, MH5113, MS5024 **or** ((50 credits from Module List: MH5201, MH5113, MH5301 - MH5302 **and** 40 credits from Module List: (AR1001 and AR1002) **or** (AR2001 and AR2002) **or** (PR1001 and PR1002))) 60 credits from Module List: AP5099, HI5099, ME5099 or MO5099 **Further requirements** Choose 180 credits in academic year If chosen 40 credits must be taken from pairs of language modules (AR1001 and AR1002) or (AR2001 and AR2002) or (PR1001 and PR1002).

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory module:

MH5101 Themes in Middle Eastern History				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module is intended to introduce students to themes and debates in Middle Eastern history. The module will look at methodological problems, questions of historiography, including source analysis, the construction of narratives and contemporary debates. There will also be opportunities to address key concepts and ideas including but not limited to the idea of the state, state-society relations, religion, identity, and ideologies/nationalism. Coursework will reflect the particular interests of the students and case studies will be drawn from their regional and historical concentrations.				
Programme module type:	Compulsory for the Iranian Studies and Middle Eastern History Postgraduate Programmes. Optional for Transnational, Global and Spatial History Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof A Ansari			

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One of:

AP5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times arranged with the supervisor(s).			

Student dissertations will be supervised by members of the teaching staff in Arabic and Persian who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Middle Eastern Literary and Cultural Studies MLitt Postgraduate Programme.
	One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: At times arranged with the supervisor(s)
Assessment pattern:	Dissertation = 100%
Module coordinator:	TBC
Module teaching staff:	Team taught/various

HI5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Iranian Studies MLitt Postgraduate Programme.
	One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr J Clark

ME5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by a specified date late in August.

Programme module type:	Compulsory for Mediaeval History MLitt Postgraduate Programme
	One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Programme.
	One of ME5099, MO5099 or IR5099 is compulsory for Strategic Studies.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision according to School guidelines
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Prof J Hudson

MO5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Optional for Central and East European Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	Dr J Clark			
Module teaching staff:	By arrangement			

Optional modules (depending on pathway):

MH5301 Directed Reading in Middle Eastern History 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
A directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student in consultation with a supervisor. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching of undergraduate work and the independence of postgraduate dissertations.				
Programme module type:	Optional for the Middle Eastern History Postgraduate Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour one-to-one tutorials (x 6)			
Assessment pattern:	Coursework (2 essays) = 100%			
Module coordinator:	TBC			

MH5302 Directed Reading in Middle Eastern History 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
A directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student in consultation with a supervisor. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching of undergraduate work and the independence of postgraduate dissertations.				
Programme module type:	Optional for the Middle Eastern History Postgraduate Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour one-to-one tutorials (x 6)			
Assessment pattern:	Coursework (2 essays) = 100%			
Module coordinator:	TBC			

MH5113 State and Society in the Pre-Modern Middle East

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

This module introduces postgraduate students to debates about development of states and societies in the pre-modern Middle East from Late Antiquity to the eve of the modern period. Topics covered include Byzantium, medieval Armennia, the Caliphate, the Seljuq Empire, the Fatimid dynasty, and the Ottomans and Safavid empires. The course examines the state formation in the Middle East and interaction between religion, politics and society in the region.

Programme module type:	Optional for the Middle Eastern History Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof A Peacock

MS5024 Mediaeval Language

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 & 2 (taught twice)
Planned timetable:	To be arranged.			

An optional module providing an introduction to one mediaeval language. Grounding in the grammar of and translation from the language will be acquired with the help of grammar exercises and translation practice on original texts. The aim is to get all students to an acceptable level of proficiency in reading and translation. Sufficient prior knowledge of the language to embark on the module at an apropriate level may be requested. Time and students' linguistic expertise permitting, some literary contextualisation of the texts studied and translated may also be included. The languages normally available include Classical Arabic, Classical Armenian, Old English, Mediaeval French, Middle High German, Old Irish, Old Norse, Classical Persian, Middle Scots and Turkish.

Programme module type:	Compulsory for Middle Eastern History (unless undergraduate language modules are taken) Optional for Mediaeval Studies Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

MH5201 Middle Eastern Historical Translation

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on Iranian Studies or Middle Eastern History Postgraduate Programmes.			
Planned timetable:	To be arranged.			

This module is intended to complement and supplement Persian language modules and to serve as a bridge between the language modules and history modules which constitute the majority of the MLitt in Iranian Studies programme, and is assessed through the submission of an annotated translation from Persian into English. The specific text will be agreed with the course tutor and will be relevant both to the student's specific research interests and their proficiency in Persian.

Programme module type:	Optional for Iranian Studies and Middle Eastern History Postgraduate Programmes.
Pre-requisite(s):	(AR1001 or AR2001 or AR3401 or AR4401 or (PR1001 or PR2001 or PR3001)
Co -requisite(s):	(AR1002 or AR2002 or AR3402 or AR4402) or (PR1002 or PR2002 or PR3002)
Learning and teaching methods and delivery:	**Weekly contact**:
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof A Ansari

Language modules:

AR1001 Arabic for Beginners 1

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	1	

Planned timetable:	11.00 am or, if timetable clash, 12.00 noon on Mon; 11.00 am or, if timetable clash, 12.00 noon Tue - Fri, or 4.00 pm, Tue, Thu, Fri and 9.00 am Wed, or 2.00 pm, Tue, Thu, Fri and 9 am Wed

This module, together with AR1002, will enable students to read, write and converse in simple Modern Standard Arabic. It will cover the Arabic alphabet and writing system, and begin the study of Arabic grammar. A selection of non-literary modern Arabic texts will be read in class as the basis of language teaching, classroom drills, tests and written assignments and oral class work.

Programme module type:	Optional for Middle Eastern History Postgraduate Programme.
Anti-requisite(s):	Native Speaker of Arabic who is fluent in Modern Standard Arabic, a pass at Higher, A-Level or equivalent.
Required for:	AR1002
Learning and teaching methods and delivery:	**Weekly contact**: 5 language classes and 1 surgery hour.
Assessment pattern:	2-hour Written Examination = 40%, approximately 15-minute Practical Examination = 20%, Coursework = 40%
Module coordinator:	Mr M Whitehouse
Module teaching staff:	Dr F Caiani, TBC, Mr M Whitehouse

AR1002 Arabic for Beginners 2

SCOTCAT Credits:	20	SCQF Level 7	**Semester:**	2	

Planned timetable:	11.00 am or, if timetable clash, 12.00 noon on Mon; 11.00 am or, if timetable clash, 12.00 noon Tue - Fri, or 3.00 pm Tue - Fri, or 4.00 pm, Tue, Thu, Fri and 9.00 am Wed

This module will complete the work of AR1001 and prepare students for AR2001. It will cover the remaining points of Arabic grammar, using a selection of representative non-literary texts. Please note that this module is not designed for native or heritage speakers of Arabic.

Programme module type:	Optional for Middle Eastern History Postgraduate Programme.
Anti-requisite(s):	Native Speaker of Arabic who is fluent in Modern Standard Arabic.
Required for:	AR2001
Learning and teaching methods and delivery:	**Weekly contact**: 5 language classes and 1 surgery hour.
Assessment pattern:	2-hour Written Examination = 40%, approximately 15-minute Practical Examination = 20%, Coursework = 40%
Module coordinator:	Mr M Whitehouse
Module teaching staff:	Dr F Caiani, TBC, Mr M Whitehouse

AR2001 Intermediate Arabic 1				
SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	1
Planned timetable:	10.00 am. If timetable clash, 2.00 pm Wed, Thu and Fri, or 4.00 pm Wed, Thu and Fri			
This module, together with AR2002, will enable students to read and write Modern Standard Arabic to intermediate level with the aid of a dictionary, and to speak in standard Arabic on appropriate topics with a limited vocabulary. Oral work and written class work will be based on a series of texts selected for their relevance to the understanding of contemporary issues and culture.				
Programme module type:	Optional for Middle Eastern History Postgraduate Programme.			
Required for:	AR2002			
Learning and teaching methods and delivery:	**Weekly contact**: 5 language classes and 1 surgery hour.			
Assessment pattern:	2-hour Written Examination = 40%, approximately 15-minute Practical Examination = 20%, Coursework = 40%			
Module coordinator:	Dr F Caiani			
Module teaching staff:	Dr F Caiani, TBC, Mr M Whitehouse			

AR2002 Intermediate Arabic 2				
SCOTCAT Credits:	20	SCQF Level 8	**Semester:**	2
Planned timetable:	10.00 am. If timetable clash, 10.00 am Wed, 2.00 pm Thu and Fri, or 4.00 pm Wed, Thu and Fri			
This module continues the work of AR2001 and prepares students for Honours modules in Arabic. In tutorials, applied language work uses passages from contemporary and modern writings, selected for their relevance to the understanding of contemporary issues, language and thought. In classes/lectures, representative literary texts provide an introduction to key themes in Arabic culture.				
Programme module type:	Optional for Middle Eastern History Postgraduate Programme.			
Required for:	AR3201			
Learning and teaching methods and delivery:	**Weekly contact**: 5 language/text classes and 1 surgery hour.			
Assessment pattern:	2-hour Written Examination = 40%, approximately 15-minute Practical Examination = 20%, Coursework = 40%			
Module coordinator:	Dr F Caiani			
Module teaching staff:	Dr F Caiani, TBC, Mr M Whitehouse			

PR1001 Persian for Beginners 1

SCOTCAT Credits:	20	SCQF Level 7	Semester:	1

Planned timetable:	2.00 pm Mon to Fri

This is a beginner's level language module, which teaches the skills of reception (reading and listening) and production (speaking and writing) in Persian. The aim is to familiarise students with the spoken and written forms of Persian, to enable them to express themselves in writing, role-play and basic dialogues, and to begin to read basic authentic texts. Please note that this module is not designed for native or heritage speakers of Persian.

Programme module type:	Optional for Middle Eastern History Postgraduate Programme.
Anti-requisite(s):	Native speaker of Persian, a pass at Higher, A-Level or equivalent.
Required for:	PR1002
Learning and teaching methods and delivery:	**Weekly contact**: 5 language classes and 1 surgery hour.
Assessment pattern:	2-hour Written Examination = 40%, approximately 15-minute Oral Examination = 20%, Coursework = 40%
Module coordinator:	Dr M Ghorbankarimi
Module teaching staff:	Dr M Ghorbankarimi

PR1002 Persian for Beginners 2

SCOTCAT Credits:	20	SCQF Level 7	Semester:	2

Planned timetable:	2.00 pm Mon to Fri

This module is a continuation of PR1001, developing reception skills (reading and listening), and language production (speaking and writing) in Persian. It also provides an introduction to elementary translation between Persian and English. Please note that this module is not designed for native or heritage speakers of Persian.

Programme module type:	Optional for Middle Eastern History Postgraduate Programme.
Required for:	PR2001
Learning and teaching methods and delivery:	**Weekly contact**: 5 language classes and 1 surgery hour.
Assessment pattern:	2-hour Written Examination = 40%, approximately 15-minute Oral Examination = 20%, Coursework = 40%
Module coordinator:	Dr M Ghorbankarimi

Masters in Modern History

Programme Requirements

Modern History - MLitt
((MO5621 (20 credits) **and** MO5622 (20 credits)) **or** MO5801 (40 credits))) **and** MO5602 (40 credits) **and** 40 credits from Module List: MO5603 - MO5650, MO5710, SC5203 **and** MO5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

MO5621 History in the Making: Theories, Approaches and Practice 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.				
Programme module type:	MO5621 or MO5151 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.			
Anti-requisite(s):	MO5601			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr K Ferris			

MO5622 History in the Making: Theories, Approaches and Practice 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.

Programme module type:	MO5622 or MO5152 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.		
Pre-requisite(s):	MO5621	**Anti-requisite(s):**	MO5601
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar		
Assessment pattern:	Coursework = 100%		

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes. Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes
	One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate
	Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr J Clark
Module teaching staff:	By arrangement

Optional modules:

MO5605 Themes in American History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will enable postgraduate students to tackle at a conceptually advanced level a selection of the most important issues in the history of North America, from its foundations as European colonies onwards. The module will expose students to several key debates in American historiography by focusing on a series of issues that have especially preoccupied scholars in the field.

Programme module type:	Optional for Environmental History, Modern History and Transnational, Global and Spatial HistoryPostgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G MItchell

MO5606 Perceptions of Central and Eastern Europe

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1 or 2
Planned timetable:	To be arranged.			

Perceptions of Central and Eastern Europe are as diverse as the ethic and cultural characteristics of the region itself, and have undergone significant transformation since the emergence of modern nationalism in the mid-nineteenth century. As the Mitteleuropa of German imperial aspirations gave way to the successor states of the Versailles settlement, then to Soviet-dominated Eastern Europe in a polarised Cold War continent, and, most recently, to the post-Communist "return to Europe", the correspondingly evolving views from the periphery, from Germany and Russian, and from within the region itself offer a rich and challenging subject for advanced historical study.

Programme module type:	Optional for Central and East European Studies, Environmental History, Modern History and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Kamusella

MO5609 Directed Reading in Modern History 2

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Central and East European Studies, Early Modern History, Environmental History, Modern History, Reformation Studies and The Book. History and Techniques of Analysis Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5610 Themes in Russian Nineteenth- and Twentieth-Century Intellectual History

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module serves as an introduction to Russian intellectual culture for postgraduate students taking a taught MLitt in Central and East European Studies. Based on a close reading of sources (in translation and/or in Russian), it analyses a number of key themes in Russian thought with reference to the socio-political contexts in which they first arose as well as their subsequent transformation in the Soviet era. The module also explores the ways in which some of the leit-motifs of pre-Revolutionary intellectual culture have more recently been recovered as a 'resource' by intellectuals and public figures in endeavors to re-articulate the 'authentic' nature of Russian culture in the aftermath of communism.

Programme module type:	Optional for Central and East European Studies, Modern History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Nethercott

MO5613 History of Modern Science

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

Science and technology are key elements of modernity, and, of course, they have a history. This module will introduce students to core themes in the history of science from the Scientific Revolution onwards. Students will read a mixture of primary and secondary sources, and will be challenged to think about changes over time in such issues as: the definition and cultural status of 'science'; the status and role of its practitioners; the motivations for the pursuit of natural knowledge; the methods employed for making and communicating knowledge; and the spaces and sites of knowledge production and communication. Sessions will usually be co-taught by members of staff who bring different perspectives, cases and period-expertise to the discussion.

Programme module type:	Optional for Early Modern History, Environmental History, Intellectual History and Modern History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Fyfe

MO5621 History in the Making: Theories, Approaches and Practice 1

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.

Programme module type:	MO5621 or MO5151 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.
Anti-requisite(s):	MO5601
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Ferris

MO5622 History in the Making: Theories, Approaches and Practice 2

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

The module examines the development of history-writing and historical research since the Enlightenment, and the emergence of fields, trends and new approaches in current historiography. It brings together material from a range of historical approaches in order to provide a strong introduction to history and historiography at postgraduate level. Its combination of substantive and historiographical material enables the module to be used as a free-standing guide for those humanities students who are not based in History but who wish to take an elective module in the subject.

Programme module type:	MO5622 or MO5152 compulsory for Environmental History Postgraduate Programme, Compulsory for Modern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.		
Pre-requisite(s):	MO5621	Anti-requisite(s):	MO5601
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminar		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr K Ferris		

MO5630 Directed Reading in Modern History (20)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Early Modern History, Environmental History and Modern History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour tutorial (fortnightly)
Assessment pattern:	Coursework (2 essays) = 100%
Module coordinator:	Dr JFM Clark

SC5203 Building Britain: The Construction and Deconstruction of Britishness since 1707

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module explores the concept of 'Britishness', its construction and deconstruction, from 1707 - 2000. The module is intended to combine the study of key individual topics such as the Growth and Decline of Britain's Empire, the two World Wars, The Welfare State etc with a more conceptual notion - the construction of British national identity. It will combine political, social, economic and cultural history and will introduce students to key debates in British historiography.

Programme module type:	Optional for Modern History,Scottish Historical Studies and Transnational, Global and Spatial History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Mason

Masters in Reformation Studies

Programme Requirements

Reformation Studies - MLitt
(MO5101 (20 credits) **and** MO5102 (20 credits) **and** (80 credits from Module List: MO5002 - MO5007, MO5010, MO5602, MO5609, SC5022, SC5052, SC5201 **or** 40 credits from Module List: MO5002 - MO5007, MO5010, MO5602, MO5609, SC5022, SC5052, SC5201 **and** 40 credits from Module List: MO5030 - MO5039)) **and** MO5099 (60 credits))   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

MO5101 Aspects of Reformation 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
The module explores approaches and methods employed in the study of early modern religious history. The emphasis is upon individual reading and seminar discussion. The intention of the class is to develop a sense of historical development in early modern research. Topics covered across the two semesters will include: humanism; Lutheranism; Calvinism; Catholicism; religious radicalism; co-existence and toleration; society and gender.				
Programme module type:	Compulsory for Reformation Studies Postgraduate Programme.			
Anti-requisite(s):	MO5011			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 6 weeks)			
Assessment pattern:	Coursework (2 essays) = 100%			
Module coordinator:	Prof A Pettegree			

MO5102 Aspects of Reformation 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The module explores approaches and methods employed in the study of early modern religious history. The emphasis is upon individual reading and seminar discussion. The intention of the class is to develop a sense of historical development in early modern research. Topics covered across the two semesters will include: humanism; Lutheranism; Calvinism; Catholicism; religious radicalism; co-existence and toleration; society and gender.

Programme module type:	Compulsory for Reformation Studies Postgraduate Programme.		
Pre-requisite(s):	MO5101	Anti-requisite(s):	MO5011
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 5 weeks), 2-hour tutorial (x 1 week)		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Prof A Pettegree		

MO5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr J Clark
Module teaching staff:	By arrangement

Optional modules:

MO5004 War, State and Society in Early Modern Europe and New Worlds

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1 or 2
Planned timetable:	To be arranged.			

This module will explore the transformations in the size, scale and scope of European warfare between the late fifteenth and late eighteenth centuries. Such developments as the proliferation of gunpowder weaponry and the transformation of fortifications, considered by some historians as a "Military Revolution", altered the nature of warfare but also had considerable effects, often detrimental, on the state, society and good order. Moreover, Europeans exported their arts of war to other continents in competition with each other, and their encounters with other peoples in the Mediterranean basin, the Americas and East Asia led to further military adaptation. The module will investigate the military developments of the period on land and to a lesser extent at sea, but also the effects they had on the state and on civilians.

Programme module type:	Optional for Early Modern History, Reformation Studies, Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

MO5007 The European Renaissance

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1 or 2
Planned timetable:	To be arranged.			

The Italian Renaissance has been seen as a turning point in European history. Writing in the nineteenth century, Jakob Burckhardt famously defined it as a golden age, marked above all by individualism, a love of ancient classics, amorality and antipathy to Christianity. Northern Europe, in the view of Burckhardt and his successor Johann Huizinga, was, by contrast, a society in decline. This module will compare and contrast the Italian and Northern Renaissances, examining their mediaeval origins and exploring themes such as religion, humanism, court and urban life, in order to test this traditional interpretation. Throughout, we will make extensive use of primary sources, both textual and visual, including works by Petrarch, Thomas à Kempis, Lorenzo Valla, Erasmus, Baldassare Castiglione, Thomas More, Hans Holbein, and Albrecht Dürer.

Programme module type:	Optional for Early Modern History and Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M McLean

MO5010 Political Thought and Intellectual History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will offer a rich and varied graduate-level introduction to the political theory and intellectual history of the early modern period. There will be an emphasis upon English-speaking examples but always set within the context of broader European developments. Particular themes will be explored through the study of key texts and will include explanations of the relationship between state and society, theories of legitimacy and political obligation, accounts of the origins of government, and emerging interest in specific aspects of governmental activity.

Programme module type:	Optional for Early Modern History, Reformation Studies and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Rose

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes.
	Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

MO5609 Directed Reading in Modern History 2

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Optional for Central and East European Studies, Early Modern History, Environmental History, Modern History, Reformation Studies and The Book. History and Techniques of Analysis Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

SC5201 Religion and Identity in Early Modern Britain

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The purpose of this module is to explore the significance of the Reformation in reshaping the ways in which Scots and Englishmen perceived themselves as members of distinct Protestant churches and communities in the sixteenth and seventeenth centuries and the extent to which such self-definitions promoted or challenged ideas of British religious unity and integration. It thus examines the emergence of separate ecclesiastical structures and identities in the decades before the Anglo-Scottish union of 1603 and the religious conflicts that arose from the Stuart monarchy's subsequent attempts to impose a highly contested understanding of British ecclesiastical conformity on their Scottish and English kingdoms.

Programme module type:	Optional for Early Modern History, Scottish Historical Studies or Reformation Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Mason

MO5030 Early Modern Documents and Sources

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Thu			

This module provides a wide-ranging introduction to the types of source material which researchers on the early modern period may encounter. In studying this module, you will be trained in critical analysis of genres of both textual and material sources. It offers an introduction to methodological commentaries on the nature of such sources, a range of British, European, and global examples of them, and the chance for you to discuss examples drawn from your own particular areas of specialism. The module also provides a guide to analysing modern editions of documents and assessing their reliability. Its training in the variety of material which early modernists may unexpectedly find themselves working with, whatever their specialism, is an excellent complement to the other skills pathways, and important preparation for the MLitt (and any potential doctoral) dissertation.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.		
Co-requisite(s):	Another of MO5030 - MO5039	Anti-requisite(s):	MO5012
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr J Rose		

MO5031 Latin for Postgraduate Research

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	9.30 am - 11.00 am Mon and Tue			

The three tiers of teaching (beginners, intermediate, and translation) provide suitable levels of engagement with Latin for students with earlier or no experience. The beginners' class covers the fundamentals of Latin grammar and syntax; gives practice in translating separate sentences, short Latin passages written specifically for the class; passages of genuine Latin taken from a wide variety of sources including the Vulgate, the Church Fathers, Mediaeval, and later historians, hymns, and popular verses; surveys various types of Latin literature from late antiquity to the eighteenth century, Latin as a spoken language, pronunciation, and the advantages of Latin as a lingua franca; translation techniques. The intermediate class offers revision and consolidation of the above, introducing students to more complex aspects of grammar and syntax. The advanced translation class uses authors of verse and prose, analyses Latin styles, includes translation into Latin as well as from Latin into English, and offers exercises in recognising and correcting mistakes in modern published authors' versions of Latin texts, and in improving other versions and in correctly transcribing and translating manuscript material.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.		
Co-requisite(s):	Another of MO5030 - MO5039	Anti-requisite(s):	MO5012
Learning and teaching methods and delivery:	**Weekly contact**: 2 x fortnightly 1.5-hour seminars.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr P Maxwell-Stuart		

MO5032 Material Bibliography

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	2.00 pm - 4.00 pm Thu			

Material Bibliography is a year-long training option intended for students enrolled on the Book History, Reformation Studies or Early Modern MLitt programmes. It covers the use of the Book as historical evidence, and practical aspects of cataloguing and Special Collections work. Closely supervised seminars will cover: Basic tools? Databases and how to identify hand pressed books; Reading a title page; Latin for book historians; Printers, publishers and booksellers; Paper and format; Collation formulae and pagination, type description; Fingerprints; Refresher - edition vs. copy; Provenance; Binding and Bindings; Workshop - describing books; Databases and bibliometrics. Semester one focuses on group training, semester two on supervised individual practice.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.		
Co-requisite(s):	Another of MO5030 - MO5039	**Anti-requisite(s):**	MO5012
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars or 2.5-hour practical classes.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr M McLean		

MO5033 Paleography and Manuscript Studies

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Fri			

This module provides a wide-ranging introduction to the reading and handling of original source material of all types which researchers of the early modern period may encounter. In studying this module, you will gain the skills you need to read early modern handwriting and gain a sense of the nature of European handwriting in the early modern period. You will learn how to create a transcription (to professional standards). The module also provides experience in handling original source materials. This training in the variety of material which early modernists may find themselves working with, whatever their specialism, is an excellent complement to the other skills pathways, and important preparation for the MLitt (and any potential doctoral) dissertation.

Programme module type:	Optional for The Book:History and Techniques of Analysis, Early Modern History, Reformation Studies Postgraduate Programmes.		
Co-requisite(s):	Another of MO5030 - MO5039	**Anti-requisite(s):**	MO5012
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr M Connolly		

Masters in Scottish Historical Studies

Programme Requirements

Scottish Historical Studies - MLitt
SC5301 (20 credits) **and** SC5302 (20 credits) **and** SC5052 (40 credits) **and** 40 credits from Module List: HI5002 - HI5003, HI5104 - HI5105, SC5201 - SC5203 **and** SC5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

SC5301 Scotland's Pasts: Writing Scotland from the Middle Ages to the Present 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged.

This module is designed to give graduate students a thorough grounding in the history of historical writing in Scotland in a way that introduces them to the range of practical and methodological issues associated with the study of past cultures and societies. It surveys the development of forms of historical writing in Scotland from the Middle Ages to the present day. Beginning with medieval chronicles, it goes on to examine how an established narrative of nationhood was refashioned in the light of Renaissance sensibilities and the political exigencies of the Protestant Reformation. It then examines the transformations in historical consciousness and methodologies with which Scots were particularly engaged during the Enlightenment as well as the antiquarian culture that fed the romantic imagination. The module concludes with consideration of the development of Scottish history as an academic field of study in the twentieth century.

Programme module type:	Compulsory for Scottish Historical Studies Postgraduate Programme.
Anti-requisite(s):	SC5051
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar classes (x 6 weeks)
Assessment pattern:	Coursework (1 essay) = 100%
Module coordinator:	Prof R Mason

SC5302 Scotland's Pasts: Writing Scotland from the Middle Ages to the Present 2

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module is designed to give graduate students a thorough grounding in the history of historical writing in Scotland in a way that introduces them to the range of practical and methodological issues associated with the study of the Scottish past. Following on from SC5301, it focuses on the development of Scottish history as an academic field of study in the twentieth century through a series of specific case studies in modern Scottish historiography. Here particular episodes and issues are used to illuminate recent developments in historical approaches and methods and to familiarise students with the range of literature on some of the most contested aspects of the Scottish past.

Programme module type:	Compulsory for Scottish Historical Studies Postgraduate Programme.		
Pre-requisite(s):	SC5301	Anti-requisite(s):	SC5051
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar classes (x 6 weeks)		
Assessment pattern:	Coursework (1 essay) = 1005%		
Module coordinator:	Prof R Mason		

SC5052 Directed Reading in Scottish History

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1 or 2
Planned timetable:	To be arranged.			

A directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Scottish Historical Studies Postgraduate Programme.
	Optional for Reformation Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Mason

SC5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	Semester:	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Scottish Historical Studies MLitt Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Prof R Mason

Optional modules:

HI5002 Historical Sources and Skills 1

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year

Planned timetable:	To be arranged.

The aim of this module is to give students a chance to acquire two technical skills which they must have in order to embark on their chosen path of research, not just for the MLitt dissertation but also for possible future PhD work. There is no set syllabus. Each student chooses two from the available options which currently are (i) Bibliography (ii) Palaeography and Diplomatic (iii) Language Training - Latin and French are currently offered, but the School can secure teaching in any appropriate language currently taught in the University (iv) Archaeology (v) Archive Studies (vi) Quantitative and Computing Skills for historians. The module can therefore vary considerably and may be taught almost entirely within one department (such as Modern History or Mediaeval History) or in a number of different department. Two semesters are essential because of the need for time to cope with a great deal of new and rigorous scholarly work.

Programme module type:	Optional for Scottish Historical Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars as appropriate up to 3 hours per week.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Mason

HI5003 Historical Sources and Skills 2

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year

Planned timetable:	To be arranged.

The syllabus for this module is the same as for HI5002. Its aim is to allow students to acquire a further two technical skills from the list given under HI5002.

Programme module type:	Optional for Scottish Historical Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars as appropriate up to 3 hours per week.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Mason

HI5104 Historical Sources and Skills 4

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1

Planned timetable:	10.00 am - 12.00 noon Mon (flexible)

The aim of this module is to give students a chance to acquire a technical skill crucial for their research plans, not just for the taught postgraduate programme but also with a view to further doctoral work. Students can choose from several available training options, among them training in a number of relevant languages (incl. Latin and Arabic) and advanced bibliography.

Programme module type:	Optional for Mediaeval History, and Scottish Historical Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework (Pass / Fail) = 100%
Module coordinator:	Prof J Hudson

HI5105 Historical Sources and Skills 5

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Mon (flexible)			
The aim of this module is to give students a chance to acquire a technical skill crucial for their research plans, not just for the taught postgraduate programme but also with a view to further doctoral work. Students can choose from several available training options, among them training in a number of relevant languages (incl. Latin and Arabic) and advanced bibliography.				
Programme module type:	Optional for Mediaeval History, and Scottish Historical Studies Postgraduate Programmes.			
Co-requisite(s):	IN TAKING THIS MODULE, YOU ARE NORMALLY EXPECTED TO ALSO TAKE A 20-CREDIT LANGUAGE MODULE.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Hudson			

SC5201 Religion and Identity in Early Modern Britain

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
The purpose of this module is to explore the significance of the Reformation in reshaping the ways in which Scots and Englishmen perceived themselves as members of distinct Protestant churches and communities in the sixteenth and seventeenth centuries and the extent to which such self-definitions promoted or challenged ideas of British religious unity and integration. It thus examines the emergence of separate ecclesiastical structures and identities in the decades before the Anglo-Scottish union of 1603 and the religious conflicts that arose from the Stuart monarchy's subsequent attempts to impose a highly contested understanding of British ecclesiastical conformity on their Scottish and English kingdoms.				
Programme module type:	Optional for Early Modern History, Scottish Historical Studies or Reformation Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof R Mason			

SC5203 Building Britain: The Construction and Deconstruction of Britishness since 1707

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module explores the concept of 'Britishness', its construction and deconstruction, from 1707 - 2000. The module is intended to combine the study of key individual topics such as the Growth and Decline of Britain's Empire, the two World Wars, The Welfare State etc with a more conceptual notion - the construction of British national identity. It will combine political, social, economic and cultural history and will introduce students to key debates in British historiography.				
Programme module type:	Optional for Modern History,Scottish Historical Studies and Transnational, Global and Spatial History Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof R Mason			

Masters in Transnational, Global and Spatial History

Programme Requirements

Transnational, Global and Spatial History - MLitt
(MO5151 (20 credits) **and** MO5152 (20 credits) **and**   (MO5161 (40 credits) **or**   40 credits from Module List: EH5003, MH5101, MO5004, MO5008, MO5010, MO5023, MO5603, MO5605 - MO5606, SC5203 **and**   (MO5602 (40 credits) **or**   40 credits from Module List: EH5003, MH5101, MO5004, MO5008, MO5010, MO5023, MO5603, MO5605 - MO5606, SC5203   MO5099 (60 credits))   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits as for the Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

MO5151 Global Times - Plural Spaces 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This core module for the MLitt in Transnational and Spatial History offers a strong foundation in the major approaches to comparative and transnational history as well as the emerging field of spatial history. This module introduces the origins of these new ways of looking at the past, as well as some of the major methodological challenges faced. The focus then shifts to consider transnational agents, networks, and new approaches to doing history between the micro and macro scales.				
Programme module type:	Compulsory for Transnational, Global and Spatial History Postgraduate Programme Optional for Environmental History Postgraduate Programme			
Required for:	MO5152			
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr K Lawson			

MO5152 Global Times - Plural Spaces 2				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This core module for the MLitt in Transnational and Spatial History offers a strong foundation in the major approaches to comparative and transnational history as well as the emerging field of spatial history. This module explores a variety of understandings of spatial history, including the idea of mental maps, the study of landscapes, places of memory and spatial practices.				
Programme module type:	Compulsory for Transnational, Global and Spatial History Postgraduate Programme Optional for Environmental History Postgraduate Programme			
Pre-requisite(s):	MO5151			
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr K Lawson			

MO5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Programme. Optional for Central and East European Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module Co-ordinator:	Dr J Clark			
Lecturer(s)/Tutor(s):	By arrangement			

Compulsory unless given permission to substitute from optional list:

MO5161 Skills in Transnational History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will equip MLitt students with skills necessary for historical research in the twenty-first century. Tailored specifically for students studying transnational, global and spatial history, the course will lead to the acquisition and development of skills in the digital humanities, and/or skills required for using specific historical sources. Students select two mini-modules on GIS map-making and one on databases and network analysis. The course is distinctive in that it seeks to foster multi-disciplinary expertise among history students - with the aim of developing innovative approaches to the sub-disciplines of transnational, global and spatial history.

Programme module type:	Compulsory for Transnational, Global and Spatial History Postgraduate Programme
	Optional for Environmental History Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 7 x 2-hour seminars and 4 x 2-hour practical classes over the semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Lawson

MO5602 Directed Reading in Modern History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module offers a directed reading project designed to encourage the development of skills of historical analysis through concentrated study of a topic chosen by the student. The project offers the student the opportunity to develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. The project will generally take the form of a bibliographical essay or primary research on a narrowly defined topic, but the guidelines are sufficiently flexible to accommodate new developments in learning and information dissemination.

Programme module type:	Compulsory for Intellectual History, Modern History, Transnational, Global and Spatial History Postgraduate Programmes.
	Optional for The Book: History and Techniques of Analysis, Central and East European Studies, Early Modern History, Environmental History, Reformation Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Team taught

Optional modules:

EH5003 Environmental History: Nature and the Western World (1800 - 2000)				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			
This module studies environmental history over the past two centuries in an international context. It examines attitudes to nature and animals, species history (extinctions and introductions), national parks and nature reserves, the history of environmentalism and nature conservation, the history of countryside recreation and tourism, and the history of current problems such as pollution and pesticide use. It will draw on examples taken from the USA, southern Africa, Australasia and Great Britain.				
Programme module type:	Optional for Environmental History and Transnational, Global and Spatial History Postgraduate Taught Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J Clark			

MH5101 Themes in Middle Eastern History				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module is intended to introduce students to themes and debates in Middle Eastern history. The module will look at methodological problems, questions of historiography, including source analysis, the construction of narratives and contemporary debates. There will also be opportunities to address key concepts and ideas including but not limited to the idea of the state, state-society relations, religion, identity, and ideologies/nationalism. Coursework will reflect the particular interests of the students and case studies will be drawn from their regional and historical concentrations.				
Programme module type:	Compulsory for the Iranian Studies and Middle Eastern History Postgraduate Programmes. Optional for Transnational, Global and Spatial History Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof A Ansari			

MO5004 War, State and Society in Early Modern Europe and New Worlds

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will explore the transformations in the size, scale and scope of European warfare between the late fifteenth and late eighteenth centuries. Such developments as the proliferation of gunpowder weaponry and the transformation of fortifications, considered by some historians as a "Military Revolution", altered the nature of warfare but also had considerable effects, often detrimental, on the state, society and good order. Moreover, Europeans exported their arts of war to other continents in competition with each other, and their encounters with other peoples in the Mediterranean basin, the Americas and East Asia led to further military adaptation. The module will investigate the military developments of the period on land and to a lesser extent at sea, but also the effects they had on the state and on civilians.

Programme module type:	Optional for Early Modern History, Reformation Studies, Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

MO5008 The Creation of an Atlantic World

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will introduce students to the concept of the Atlantic World, a unit of analysis used by historians to understand the changes wrought in the western hemisphere by the British, French, and Iberian discovery and settlement of the Americas, and by Europe's slave trade with Africa. Through study of the economic, social, intellectual, and legal implications of the establishment of this new field of human interaction between 1500-1800, students will gain an appreciation of the impact of these discoveries on old and new world societies alike. Discussion will also address the benefits and limitations of the idea of an Atlantic World for the study of the early modern era.

Programme module type:	Optional for Early Modern History and and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Hart

MO5010 Political Thought and Intellectual History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will offer a rich and varied graduate-level introduction to the political theory and intellectual history of the early modern period. There will be an emphasis upon English-speaking examples but always set within the context of broader European developments. Particular themes will be explored through the study of key texts and will include explanations of the relationship between state and society, theories of legitimacy and political obligation, accounts of the origins of government, and emerging interest in specific aspects of governmental activity.

Programme module type:	Optional for Early Modern History, Reformation Studies and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Rose

MO5023 Disease and Environment (c.1500 - c.2000) (40)

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Before they are members of political and religious groupings, humans are biological entities. As such, throughout history humans have had to devise complex strategies to cope with fundamental biological factors. Focusing primarily upon an Anglo-American context, this course examines the manner in which sickness and death have shaped human history - both biologically and culturally - over the past 500 years. Consideration of patients' and practitioners' expectations, and of the changing meanings of cure, treatment, and care, encourages students to appreciate changing attitudes to health, hygiene, healing and illness within the social history of medicine. Moreover, through an examination of medical practitioners, hospitals, quarantine, inoculation, imperialism, urbanisation, and industrialisation, students will gain an appreciation of the historical relationships between the environment and disease.

Programme module type:	Optional for Environmental History and Transnational, Global and Spatial History Postgraduate Programmes.
Anti-requisite(s):	MO5223
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Clark

MO5605 Themes in American History

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module will enable postgraduate students to tackle at a conceptually advanced level a selection of the most important issues in the history of North America, from its foundations as European colonies onwards. The module will expose students to several key debates in American historiography by focusing on a series of issues that have especially preoccupied scholars in the field.

Programme module type:	Optional for Environmental History, Modern History and Transnational, Global and Spatial HistoryPostgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G MItchell

MO5606 Perceptions of Central and Eastern Europe

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

Perceptions of Central and Eastern Europe are as diverse as the ethic and cultural characteristics of the region itself, and have undergone significant transformation since the emergence of modern nationalism in the mid-nineteenth century. As the Mitteleuropa of German imperial aspirations gave way to the successor states of the Versailles settlement, then to Soviet-dominated Eastern Europe in a polarised Cold War continent, and, most recently, to the post-Communist "return to Europe", the correspondingly evolving views from the periphery, from Germany and Russian, and from within the region itself offer a rich and challenging subject for advanced historical study.

Programme module type:	Optional for Central and East European Studies, Environmental History, Modern History and Transnational, Global and Spatial History Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Kamusella

SC5203 Building Britain: The Construction and Deconstruction of Britishness since 1707

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module explores the concept of 'Britishness', its construction and deconstruction, from 1707 - 2000. The module is intended to combine the study of key individual topics such as the Growth and Decline of Britain's Empire, the two World Wars, The Welfare State etc with a more conceptual notion - the construction of British national identity. It will combine political, social, economic and cultural history and will introduce students to key debates in British historiography.

Programme module type:	Optional for Modern History,Scottish Historical Studies and Transnational, Global and Spatial History Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Mason

Interdisciplinary Degrees

Taught Programmes

MSc:

Management and Information Technology
Management and Information Technology (with English Language)

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Management and Information Technology

Programme Requirements

Management and Information Technology - MSc
(IS5188 (60 credits) **or** IS5189 (60 credits)) **and** 40 credits from Module List: MN5424, MN5461, MN5470 - MN5471 **and** Between 0 and 20 credits from Module List: MN5000 - MN5999 **and** IS5101 (15 credits) **and** Between 45 and 75 credits from Module List: IS5102 - IS5150, CS5001 - CS5089, ID5059 **Further requirements** Students must select 180 credits. **MPhil:** 120 credits from taught element of programme requirements (not including project/dissertation) plus a thesis of up to 40,000 word

Compulsory modules:

IS5101 Masters Core Skills				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.				
Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

EITHER

IS5188 Group Project and Dissertation in Management and Information Technology

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available only to students on the Management and Informatin Technology Postgraduate Programme.			
Planned timetable:	To be arranged.			

This module is a group-based MSc project on an approved topic in Management and Information Technology which shows appropriate competences in both fields. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, an account of how Information Technology was used in the project, critical analyses and evaluation of the findings. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.

Programme module type:	Either IS5188 or IS5189 is compulsory for Management and Information Technology MSc Postgraduate Programme.		
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School	**Anti-requisite(s):**	IS5189
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

OR

IS5189 Dissertation in Management and Information Technology

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available only to students on the Management and Informatin Technology Postgraduate Programme.			
Planned timetable:	To be arranged.			

This module is an individually supervised MSc project on an approved topic in Management and Information Technology which shows appropriate competences in both fields. The project results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, an account of how Information Technology was used in the project, critical analyses and evaluation of the findings. Students are required to give a presentation of their work.

Programme module type:	Either IS5188 or IS5189 is compulsory for Management and Information Technology MSc Postgraduate Programme.		
Pre-requisite(s):	Admission to dissertation phase of MSc and the consent of the Head of School	**Anti-requisite(s):**	IS5188
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.		
Assessment pattern:	Coursework (Dissertation) = 100%		
Module coordinator:	dopgt-cs@st-andrews.ac.uk		

Compulsory modules - 2 of MN5424, MN4261, MN5470, MN5471:

MN5424 Corporate Finance and Accounting

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
The module will introduce students to the basic principles and practices of accounting and corporate finance. The first half of the module will concentrate on teaching students financial accounting and reporting via the accounting equation method; this will enable students to become familiar with accounting techniques and develop an understanding of financial statements and methods employed in their creation. The second half of the module will introduce corporate finance concepts such as capital structure, the CAPM, and investment approaisal techniques. The module will employ case studies to highlight to students how these principles are employed within industry; the case studies will be based in an international setting.				
Programme module type:	Compulsory for Management Postgraduate Programme. Optional for Management and Information Technology Postgraduate Programme.			
Anti-requisite(s):	MN5422			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr L Nguyen			
Module teaching staff:	Dr L Nguyen and Ms L Stevenson			

MN5461 Strategic Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
Over the last three decades one of the most significant global trends has been the rapid technical development of information technology and the parallel intensification in the commercial and administrative use of this technology by organisations. In this context this module will develop students' knowledge and understanding of the strategy process and develop an appreciation of organisational responses to the rapidly changing global economy. In addition to this, the module will develop a critical understanding of the challenges of operating in the information age and will also develop awareness of the range of approaches to organisational strategy; its purpose and the process of aligning corporate strategy with operational strategies in the knowledge economy. The module will challenge students to evaluate organisational processes, including marketing and promotion, logistics and supply chain management, in a rigorous manner and develop an understanding as to how organisational resources can be harnessed to respond to the organisational challenges of operating in an age of rapidly and easily accessible information.				
Programme module type:	Compulsory for Management Postgraduate Programme. Optional for Management and Information Technology Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and a 1-hour seminar.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Mr S Wilson			

MN5470 Managing Human Resources

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

This module reviews the key theoretical and practical aspects involved in managing human resources. The module content covers both the strategic and operational requirements necessary to secure, develop, reward and retain employees and to ensure their maximum contribution to organisational performance requirements. Individual, organisational and contextual factors that influence the management of people are also considered and throughout there is an emphasis on the critical, analytical and evaluative study of the subject.

Programme module type:	Compulsory for Management and Human Resource Management Postgraduate Programmes. Optional for Management and Information Technology Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr A Baluch
Module teaching staff:	Dr A Baluch, Mr M J Dowling

MN5471 Marketing: Principles and Practice

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

Marketing is a pervasive social phenomenon, influencing our perceptions and behaviours. We are all in daily contact with the marketing activities of firms, governments and a range of other organisation sand we have all observed and experienced aspects of marketing practice throughout our daily lives. Adopting primarily a managerial perspective, this module will offer a critical review of current theory and practice and look at how marketing is evolving in light of changes to the business context. This module will introduce students to the nature and scope of marketing and its role in society. The importance of identifying, understanding and satisfying customers will be highlighted and approaches to segmenting markets and identifying target market swill be reviewed. Marketing activities will be considered within the context of the marketing mix and other managerially-determined variables. The importance of marketing research and the associated processes will be discussed.

Programme module type:	Compulsory for Management Postgraduate Programme. Optional for Management and Information Technology Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Mr W Barlow
Module teaching staff:	Mr W Barlow

**Optional modules are available -
see the pdf online called 'PG Computer Science - optional modules 2017/8.'**

And the pdf online called Management - optional modules 2017/8

Master of Science Management and Information Technology with English Language

Programme Requirements

Management and Information Technology with English Language - MSc
First semester 40 credits from Module List: ET5400 - ET5401 **and** 15 credits from Module List: CS5001 - CS5002 **Further requirements** Students must select 55 credits.
Second year (IS5198 (60 credits) or IS5199 (60 credits)) **and** ET5402 (20 credits) **and** IS5101 (15 credits) **and** Between 40 and 60 credits from Module List: MN5424, MN5461, MN5470 - MN5471 **and** Between 0 and 20 credits from Module List: MN5000 - MN5999 **and** Between 10 and 50 credits from Module List: IS5102 - IS5150, CS5001 - CS5089, ID5059 Further requirements Students must select 185 credits.

Compulsory modules:

ET5400 English for Academic Purposes (Combined Masters)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto a taught masters programme at the University of St Andrews. Students develop the academic competence required for writing, delivering presentations, participating in seminars, researching for and evaluating source material, and developing criticality in respect of all aspects of their studies.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	Student must be a user of English as an Additional Language. Student must be enrolled on a 20 month Masters degree in the School of Computer Science.
Co-requisite(s):	Student must be enrolled on CS5001 (or equivalent) and English for Computer Science 1 (ET5401).
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks) , 0.5 individual supervision meeting (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 25%, Coursework = 75% Coursework contains 2 elements: a extended essay ((50% of grade) and a presentation (25% of grade).
Module coordinator:	Mr J Harvey
Module teaching staff:	Mr J Harvey, Mrs K Tavakoli, Ms L Thirkell

ET5401 English for Computer Science 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module is designed to develop the academic literacy of students entering onto MSc programmes in the School of Computer Science, and this module runs in parallel with English for Academic Purposes (ET5400). Strategies learnt in ET5400 will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level Computer Science (CS) modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	The student must be a user of English as an Additional Language
Co-requisite(s):	ET5400, CS5001 or CS5002
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (.05 hours, x 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

ET5402 English for Computer Science 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

Availability restrictions:	Available only to students on MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Planned timetable:	To be arranged.

This module is designed to follow on from ET5401 and ET5400 to further enhance the academic literacy of students on MSc Programmes in the School of Computer Science. Strategies learnt on the two modules mentioned above will be applied to specific Computer Science-based texts, and written and spoken tasks. Students will also participate in assessed group projects modelled on similar assessments in 5000-level CS modules.

Programme module type:	Compulsory for Postgraduate Programmes in Computer Science including English Language.
Pre-requisite(s):	ET5401
Co-requisite(s):	The student must be studying on an MSc programme in the School of Computer Science and must be taking other relevant modules on that programme.
Learning and teaching methods and delivery:	**Weekly contact**: 6 class tutorials (x 11 weeks), one individual supervision meeting (0.5 hours, 5 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J Brooks
Module teaching staff:	Ms J Brooks, Ms M Carr

IS5101 Masters Core Skills

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year

Planned timetable:	To be arranged.

This module equips students with essential skills for completing an MSc in the School of Computer Science. Topics include: technical writing for Computer Science and Information Technology; use of bibliographic and referencing software; presentation skills; critical analysis of written work; generic research skills including framing research hypotheses, designing and conducting experiments, use of survey tools and gathering, analysing and presenting data; understanding basic statistics; use of project planning techniques; awareness of professional and ethical issues in research activities; carrying out a literature review; and awareness of what constitutes academic misconduct. Skills in these areas are reinforced through practical assignments.

Programme module type:	Compulsory for all Postgraduate Programmes except European Masters in Dependable Software Systems.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	dopgt-cs@st-andrews.ac.uk

EITHER

IS5188 Group Project and Dissertation in Management and Information Technology				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available only to students on the Management and Informatin Technology Postgraduate Programme.			
Planned timetable:	To be arranged.			
This module is a group-based MSc project on an approved topic in Management and Information Technology which shows appropriate competences in both fields. It results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, an account of how Information Technology was used in the project, critical analyses and evaluation of the findings. The dissertation may also include an agreed collaboratively-written group report. Each student is individually assessed, taking into account both individual and group submissions. Students are required to give a presentation of their work.				
Programme module type:	Either IS5188 or IS5189 is compulsory for Management and Information Technology MSc Postgraduate Programme.			
Pre-requisite(s):	Admission to dissertation phase of MSc and permission of the Head of School	**Anti-requisite(s):**		IS5189
Learning and teaching methods and delivery:	**Weekly contact**: Meetings with supervisor.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

OR

IS5189 Dissertation in Management and Information Technology				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available only to students on the Management and Informatin Technology Postgraduate Programme.			
Planned timetable:	To be arranged.			
This module is an individually supervised MSc project on an approved topic in Management and Information Technology which shows appropriate competences in both fields. The project results in a dissertation of no more than 15,000 words. Typically the dissertation comprises a review of related work, the extension of old or development of new ideas, an account of how Information Technology was used in the project, critical analyses and evaluation of the findings. Students are required to give a presentation of their work.				
Programme module type:	Either IS5188 or IS5189 is compulsory for Management and Information Technology MSc Postgraduate Programme.			
Pre-requisite(s):	Admission to dissertation phase of MSc and the consent of the Head of School	**Anti-requisite(s):**		IS5188
Learning and teaching methods and delivery:	**Weekly contact**: Meeting with supervisor.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	dopgt-cs@st-andrews.ac.uk			

Compulsory modules - 2 of MN5424, MN4261, MN5470, MN5471:

MN5424 Corporate Finance and Accounting				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
The module will introduce students to the basic principles and practices of accounting and corporate finance. The first half of the module will concentrate on teaching students financial accounting and reporting via the accounting equation method; this will enable students to become familiar with accounting techniques and develop an understanding of financial statements and methods employed in their creation. The second half of the module will introduce corporate finance concepts such as capital structure, the CAPM, and investment approaisal techniques. The module will employ case studies to highlight to students how these principles are employed within industry; the case studies will be based in an international setting.				
Programme module type:	Compulsory for Management Postgraduate Programme. Optional for Management and Information Technology Postgraduate Programme.			
Anti-requisite(s):	MN5422			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr L Nguyen			
Module teaching staff:	Dr L Nguyen and Ms L Stevenson			

MN5461 Strategic Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
Over the last three decades one of the most significant global trends has been the rapid technical development of information technology and the parallel intensification in the commercial and administrative use of this technology by organisations. In this context this module will develop students' knowledge and understanding of the strategy process and develop an appreciation of organisational responses to the rapidly changing global economy. In addition to this, the module will develop a critical understanding of the challenges of operating in the information age and will also develop awareness of the range of approaches to organisational strategy; its purpose and the process of aligning corporate strategy with operational strategies in the knowledge economy. The module will challenge students to evaluate organisational processes, including marketing and promotion, logistics and supply chain management, in a rigorous manner and develop an understanding as to how organisational resources can be harnessed to respond to the organisational challenges of operating in an age of rapidly and easily accessible information.				
Programme module type:	Compulsory for Management Postgraduate Programme. Optional for Management and Information Technology Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and a 1-hour seminar.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Mr S Wilson			

MN5470 Managing Human Resources				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module reviews the key theoretical and practical aspects involved in managing human resources. The module content covers both the strategic and operational requirements necessary to secure, develop, reward and retain employees and to ensure their maximum contribution to organisational performance requirements. Individual, organisational and contextual factors that influence the management of people are also considered and throughout there is an emphasis on the critical, analytical and evaluative study of the subject.				
Programme module type:	Compulsory for Management and Human Resource Management Postgraduate Programmes. Optional for Management and Information Technology Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr A Baluch			
Module teaching staff:	Dr A Baluch, Mr M J Dowling			

MN5471 Marketing: Principles and Practice				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
Marketing is a pervasive social phenomenon, influencing our perceptions and behaviours. We are all in daily contact with the marketing activities of firms, governments and a range of other organisation sand we have all observed and experienced aspects of marketing practice throughout our daily lives. Adopting primarily a managerial perspective, this module will offer a critical review of current theory and practice and look at how marketing is evolving in light of changes to the business context. This module will introduce students to the nature and scope of marketing and its role in society. The importance of identifying, understanding and satisfying customers will be highlighted and approaches to segmenting markets and identifying target market swill be reviewed. Marketing activities will be considered within the context of the marketing mix and other managerially-determined variables. The importance of marketing research and the associated processes will be discussed.				
Programme module type:	Compulsory for Management Postgraduate Programme. Optional for Management and Information Technology Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Mr W Barlow			
Module teaching staff:	Mr W Barlow			

**Optional modules are available -
see the pdf online called Computer Science - optional modules 2017/8.**

And the pdf online called Management - optional modules 2017/8

School of International Relations

Taught Programmes

Postgraduate Diploma /MLItt:

International Political Theory
International Security Studies
Middle Eastern and Central Asian Security Studies
Peace and Conflict Studies
Strategic Studies
Terrorism and Political Violence (full time mode)
Terrorism and Political Violence (distance learning mode)

MPhil:

International Political Theory
International Security Studies
Middle Eastern and Central Asian Security Studies
Peace and Conflict Studies
Strategic Studies

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Research International Relations

Programme Requirements

International Relations - MRes
60 credits from Module List: SS5101 - SS5104 **and** IR5601 (30 credits) **and** (30 credits from Module List: IR5401 - IR5402 (IPT) **or** 30 credits from Module List: IR5001, IR5036 (ISS) **or** 30 credits from Module List: IR5501 **and** (IR5510 **or** IR5527) (MECASS) **or** 30 credits from Module List: IR5151, IR5701 (PCS) **or** 30 credits from Module List: IR5800 - IR5801 (SS)) **and** IR5099 (60 credits)

Compulsory modules:

SS5101 Being a Social Scientist					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1	
Planned timetable:	3.00 - 5.00 pm Fri				
Through a series of interactive seminars this two-part module explores the fundamental skills required by all social scientists. In part one, the module will focus on how to design and produce a research dissertation. Assessment will be in the form of a critical essay that analyses the research design of a selection of papers. In part two, issues of professional development (e.g. ethics, careers, grant writing) will be addressed. Assessment will be in the form of a class test in which you will review and comment on two research proposals.					
Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development. Compulsory for various MRes Programmes outwith the School. Optional for Research Methods in Psychology (MSc), for Sustainable Development and Environmental Economics (MSc), for Sustainable Development (MSc), for Sustainable Development and Energy (MSc). Optional for various other MRes Programmes				
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr M Kesby				

SS5102 Philosophy and Methodology of the Social Sciences

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Wed			

This seminar-based module will introduce you to the basic theoretical approaches in the social sciences, encourage you to make connections between the methodological and epistemological issues involved in conducting social scientific research, and inspire you to reflect critically your own experience. The module will cover modern philosophy's historical evolution, positivism, feminism, critical theory and post-structuralism among other topics. Assessment will involve a one short review and one longer essay.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development, for Research Methods in Psychology (MSc) and various other MRes Programmes
	Optional for Sustainable Development (MRes), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	TBC (Colleagues from International Relations)

SS5103 Qualitative Methods in Social Research

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr M Kesey and Dr D Williams

SS5104 Quantitative Research in Social Science

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	1.00 - 5.00 pm Mon			

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion).
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes.
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales

IR5601 Research Methods in International Relations

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			

This is a required module for all MRes, PhD and MPhil students in the School of International Relations. It is designed to assist students in understanding the purpose and approaches of international relations scholarship, and to assist them in developing and carrying out their research. As such, it addresses a range of topics, from the history and philosophy of the social sciences to specific research methods.

Programme module type:	Compulsory for the completion of the MRes, PhD and MPhil Programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Lang

IR5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	5.00 pm - 6.00 pm Thu or 11.00 am - 12.00 noon Fri			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for International Political Theory, International Security Studies, Middle East, Caucasus and Central Asian Security Studies and Peace and Conflict Studies MLitt Postgraduate Programmes and International Relations MRes Programme.
	Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	TBC

Compulsory for MPhil:

IR5601 Research Methods in International Relations				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			
This is a required module for all MRes, PhD and MPhil students in the School of International Relations. It is designed to assist students in understanding the purpose and approaches of international relations scholarship, and to assist them in developing and carrying out their research. As such, it addresses a range of topics, from the history and philosophy of the social sciences to specific research methods.				
Programme module type:	Compulsory for the completion of the MRes, PhD and MPhil Programmes in the School of International Relations.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof T Lang			

Optional modules:

IR5401 Texts in International Political Theory				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Tue			
This module begins by examining the concept of 'international theory' as it has developed within International Relations since 1945 and introduces students to the broader idea of international political thought. The main body of the module consists of close readings and analysis of classic texts in the field, including works by figures such as Aristotle, Augustine, Hobbes, , Rousseau, Mill, Nietzsche and Marx along with more contemporary figures such as Rawls, Connolly, and Agamben.				
Programme module type:	Compulsory for International Political Theory Postgraduate Programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr V Paipais			
Module teaching staff:	Prof A Lang, Dr V Paipais, Dr N Saunders			

IR5402 Analysis and Interpretation in International Political Theory				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Wed			
This module introduces students to the methods and interpretive approaches that can be taken in the study of international political theory. It surveys a range of approaches to critical analysis, each examined through the work of prominent representatives, and considers questions regarding the conceptual, historical and normative interpretation of political theory texts.				
Programme module type:	Compulsory for International Political Theory Postgraduate Programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof P Hayden			

IR5001 International Security

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	one of 10.00 am - 12.00 noon Wed or 11.00 am - 1.00 pm Thu - In week 1 Thu session changed to Tue 2.00 pm - 4.00 pm.			

This module introduces students to important issues and significant debates in security studies. We begin by examining the nature of war, strategy, and alliances.

We then analyze the structure and impact of military power, including both conventional and nuclear weapons. We then probe the causes of interstate war, from domestic politics to the structure of the state system, to bargaining models. Finally, we turn to domestic conflict and delve into the dynamics of insurgency, counterinsurgency, and peacekeeping.

Programme module type:	Compulsory for International Security Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 40%, Midterm Examination = 20%, Coursework = 40%
Module coordinator:	Dr H Tamm

IR5036 Critical Security Studies

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	10.00 am -11.00 am Mon			

This module will examine the challenge to traditional conceptions of security presented by the emergence of Critical Security Studies since the end of the Cold War. Students will explore what it means to study the concept and practice of security from a critical perspective. They will examine the various theoretical traditions that have informed critical security studies and the methodological implications for the analysis of different types of security contexts, ranging from alliance relations, terrorism, the environment, migration, famine, etc.

Programme module type:	Compulsory for International Security Studies Optional for International Relations MRes Programme. Optional for other Postgraduate Taught Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr C Gentry

IR5501 Core in Middle East, Caucasus and Central Asian Security Studies

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm - 5.00 pm Tue			

This module focuses on major themes in the study of international security and applies them to the study of the Middle East and Central Asia. These addressed may include war and political violence, nationalism and ethnic conflict, arms control and nuclear proliferation, democratisation and theories of globalisation as they impact on the region (e.g. clash of civilisations).

Programme module type:	Compulsory for Middle East, Caucasus and Central Asian Security Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2- to 3-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof R Hinnebusch, Prof R Fawn

IR5510 Central Asia in World Order

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1

Planned timetable:	11.00 am - 1.00 pm Wed

Dramatically and unexpectedly, Central Asia was thrust to independence in 1991. Of all the Soviet republics, the five of Central Asia - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan - had been the largest net recipients of Soviet aid, had benefited most economically from the Soviet Union and had thus been the most reluctant to break from the Soviet empire. Once the path of independence was followed, each of these five states faced considerable ethnic, state, economic, social and foreign policy challenges. This course aims to analyse these nation- and state-building agendas, seeking to address critically some of the now widely held assumptions about this post-Soviet area. Moreover, located in one of the world's most strategic zones, between Russia, China and a troubled Middle East, Central Asia relies on its substantial human and natural resources in the renegotiation of its geopolitical status.

Programme module type:	Compulsory for Middle East, Caucasus and Central Asian Security Studies
	Optional for Middle East, Caucasus and Central Asian Security Studies (IR5029, IR5058, IR5510 or IR5527)
	Optional for International Security Studies Postgraduate Programme
	Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Fumagalli

IR5151 Issues in Peace and Conflict

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1

Planned timetable:	4.00 pm - 6.00 pm Tue

This is a core module for the Masters programme in Peace and Conflict Studies (PCS). It is explicitly designed to be taken alongside its allied core module, IR 5701 Peace and Conflict Theory. Like that module it is concerned with examining the fundamental nature of war and peace but it focuses on a comparative assessment of real world examples from the past and contemporary scene. In particular, it concentrates on evaluating practical approaches commonly undertaken to try to end conflict by various actors ranging from the benign ('can't we just sit down and talk about this?') to the risky ('should we bomb to end wars?') or even horrific ('why not kill them all?'). In short, it aims to encourage reflection on 'what works' in peace-building.

Programme module type:	Compulsory for Peace and Conflict Studies Postgraduate Programme.
	Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr R Brett

IR5701 Peace and Conflict Theory

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	one of 10.00 am - 12.00 noon Tue and 3.00 pm - 5.00 pm Thu			

Since the end of the Cold War, the predominant forms through which conflict is waged have transformed, precipitating profound changes both in the nature of international and intra-State conflict and in those national and international efforts to resolve and transform conflict.

 Understanding the nature of conflict and collective responses to it provides vital insights into the changing nature of the international system and into the emergence and development of those new (non-State) actors that have begun increasingly to influence and redefine it.

 This module will analyse how and why the principal theoretical frameworks and practices employed to comprehend conflict, violence and peace building have evolved over the last decades, situating this analysis within a series of key case studies.

Programme module type:	Compulsory for the Peace and Conflict Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J McMullin

IR5800 Modern War and Strategy

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	10.00 am - 12.00 noon Thu			

The module will provide students with essential knowledge of strategy and military history. It will be taught in tandem with the second core module of the MLitt in Strategic Studies, which focuses on the history of strategic thought. Taken together, both modules will equip students with an overview of the academic field of strategic studies. It will also help students acquire the necessary skills and techniques for independent further study of topics and questions in strategic studies.

Programme module type:	Compulsory for Strategic Studies Postgraduate programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr P O'Brien

IR5801 Strategic Thought

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm - 4.00 pm Mon			

The module will provide students with essential knowledge of strategic theory and the history of strategic thought. It will equip students with an overview of the academic field of strategic studies. It will also help students acquire the necessary skills and techniques for independent further study of topics and questions in strategic studies.

Programme module type:	Compulsory for Strategic Studies Postgraduate programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof H Strachan

Masters in International Political Theory

Programme Requirements

International Political Theory - MLitt
IR5401 (30 credits) **and** IR5402 (30 credits) **and** 60 credits from Module List: IR5004 - IR5095, IR5403 - IR5449, IR5526 - IR5528, IR5721 - IR5749 **and** IR5099 (60 credits) **Further requirements** Choose 180 credits in academic year

MPhil:

120 credits from the Taught Element, 30 credits from IR5601, plus a thesis of not more than 40,000 words.

Compulsory modules:

IR5401 Texts in International Political Theory				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Tue			
This module begins by examining the concept of 'international theory' as it has developed within International Relations since 1945 and introduces students to the broader idea of international political thought. The main body of the module consists of close readings and analysis of classic texts in the field, including works by figures such as Aristotle, Augustine, Hobbes, , Rousseau, Mill, Nietzsche and Marx along with more contemporary figures such as Rawls, Connolly, and Agamben.				
Programme module type:	Compulsory for International Political Theory Postgraduate Programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr V Paipais			
Module teaching staff:	Prof A Lang, Dr V Paipais, Dr N Saunders			

IR5402 Analysis and Interpretation in International Political Theory				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Wed			
This module introduces students to the methods and interpretive approaches that can be taken in the study of international political theory. It surveys a range of approaches to critical analysis, each examined through the work of prominent representatives, and considers questions regarding the conceptual, historical and normative interpretation of political theory texts.				
Programme module type:	Compulsory for International Political Theory Postgraduate Programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof P Hayden			

IR5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	5.00 pm - 6.00 pm Thu or 11.00 am - 12.00 noon Fri			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for International Political Theory, International Security Studies, Middle East, Caucasus and Central Asian Security Studies and Peace and Conflict Studies MLitt Postgraduate Programmes and International Relations MRes Programme. Optional for Central and East European Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	TBC			

Compulsory for MPhil:

IR5601 Research Methods in International Relations				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			
This is a required module for all MRes, PhD and MPhil students in the School of International Relations. It is designed to assist students in understanding the purpose and approaches of international relations scholarship, and to assist them in developing and carrying out their research. As such, it addresses a range of topics, from the history and philosophy of the social sciences to specific research methods.				
Programme module type:	Compulsory for the completion of the MRes, PhD and MPhil Programmes in the School of International Relations.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof T Lang			

Optional modules:

IR5007 Terrorism and Liberal Democracy

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module addresses: conceptual and definitional issues concerning terrorism; the relationship of terrorism to other forms of political violence; the origins, dynamics and development of contemporary terrorism; the efficacy of terrorism as a political weapon; the dilemmas and challenges of liberal democratic state responses to terrorism; and case studies in terrorism and counter-terrorism. The module is convened by specialists from the Handa Centre for the Study of Terrorism and Political Violence (CSTPV) and the School of International Relations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies and Terrorism and Political Violence Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour lecture, 1.5 hour tutorial per week + advertised office hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Brooke
Module teaching staff:	Various

IR5030 Religion and International Politics

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module explores the so-called 'global resurgence' of politicised religion, moving out from traditional studies of church-state relations in the West to selected case studies of religio-political interactions in the wider world. After an examination of various theoretical approaches to politics and religion emanating from both sociology and the study of international relations, the focus will be on themes - such as religion and the state, the nation, the international system, religious violence and peacemaking - and on cases - such as the role of the New Christian Right in the United States, political Islam, religious nationalism in the Indian sub-continent, or religious contributions to democratisation in Latin America. The use of specific themes and cases may vary from year to year, depending upon current developments in this area.

Programme module type:	Optional for International Security Studies Postgraduate Programme. Optional for Peace and Conflict Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof J P Anderson

IR5036 Critical Security Studies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am -11.00 am Mon			

This module will examine the challenge to traditional conceptions of security presented by the emergence of Critical Security Studies since the end of the Cold War. Students will explore what it means to study the concept and practice of security from a critical perspective. They will examine the various theoretical traditions that have informed critical security studies and the methodological implications for the analysis of different types of security contexts, ranging from alliance relations, terrorism, the environment, migration, famine, etc.

Programme module type:	Compulsory for International Security Studies Optional for International Relations MRes Programme. Optional for other Postgraduate Taught Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr C Gentry

IR5039 Political Economy of Conflict

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module provides a political economy perspective on conflict in a developing economy, introducing concepts and theoretical approaches of political economy and their application to situations involving conflict and violence. Economic arguments for a 'resource curse' and the explanatory binary of 'greed versus grievance' are interrogated and challenged for the absence of political, hence political economic, contextualisation and analysis. The complex network of commodities and goods traded between developed and developing economies are explored through a series of case studies and the increased securitisation of development in the twenty-first century is examined.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr W B Vlcek

IR5040 Emergent Great Powers

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Mon			

This module provides a comparative analysis of the emergence of India and China as great powers within the international system. Focusing upon the factors integral to such a phenomenon (from both theoretical and historical perspectives), students will build up a comprehensive understanding of these two states' past, contemporary and future global significance. After an assessment of differing orientating concepts from IR theory, the module will evaluate key factors concerning how India and China measure up as great powers, leading to an evaluation of the future challenges these two states will ace as they define their emergent roles in the twenty-first century.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Ogden

IR5051 Human Rights, Politics and Power

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Wed			

International legal discourses of human rights have evolved markedly since 1945 with the codification, implementation and enforcement of human rights as international public law. Despite this progress, human rights seem more pivotal in the world today than ever. What the 'war on terror' has highlighted is that military measures are hopeless if they ignore universal aspirations for social justice and human rights. As the title of the module suggests, the principal focus of this module is to explore the relationship between human rights, political discourses and power. More people that ever before believe strongly in the necessity of the inclusion of human rights considerations when thinking about actions at every level of societal interaction; personal, local, national and international. The use of the concept is, however, frequently misused and the outcome of rights campaigns is often far from the original intention. In exploring these complex issues the module is divided into three parts. In PART I attempts to ground rights in philosophy and international law will be explored. In PART II many theorists are now attempting to go beyond this divide to think through the potential for the concept in the process of social transformation. The social constructionist human rights and power will be introduced, as will postcolonialism. Drawing on this theoretical discussion a series of contemporary issues will be explored in PART III and the focus will be on suitability of the concept in any programme of social transformation by considering the role - nationally and internationally - of the legal system, economic relations, government and non-government organisations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1-hour seminar/tutorial
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr G S Sanghera

IR5053 The First World War and Its Impact on the Global System

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Wed			

The 100th anniversary of the First World War gives us a chance to reflect on how that conflict affected the domestic circumstances and the international system of both the contemporary period and since. International scholars often claim the world system fundamentally changed in 1914. This module will explore how that claim has been dealt with by international historians and by students of international order. It will therefore give an opportunity for students to reflect on the links between the history and political implications of a particular event as well as to look at how theorists of international order have built the Great War into their analyses. Students will be encouraged to examine both the War's contemporary (1914 - 1939) impact on international relations as well as the more recent debate on order and international society led by IR scholars from the 1990s and up till now, but also by international historians, looking in particular at the lasting impact of the war on issue areas like the Middle East, European Union and Great Power rivalry

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 1-hour lectur and 2 x 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof A Williams

IR5055 Agency and Strategy in Non-Western Political Thought

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Thu			

Eastern political strategies and thought, while often resting on different assumptions to their Western counterparts, have in a context of globalization spread into very different contexts than those from which they originated. Sun Tzu is included in the canon of realist thought and often informs contemporary corporate strategy; Gandhi's satyagraha has provided impetus to nonviolent movements across the globe; Thich Quang Duc's self-immolation in Vietnam (1963) has been imitated in a number of contexts since. Jihad has become a global phenomenon. These are strategies with origins in ancient Eastern thought that have been put to use in contemporary political struggles. The question of agency is important in so far as non-Western societies have for the last several hundred years been in a structurally weak position vis a vis the expansion of Western power across the globe. Non-western philosophies have informed strategies of resistance or independence but may, in very different ways, become significant as India and China become global players. There has been a lively debate within International Relations theory about the potential importance of alternative modes of thought, more indigenous to these cultures, in the evolution of the future strategies of these emerging powers. The purpose of this module is to explore a range of 'classic' and secondary texts that express different elements of non-Western thought, both ancient and contemporary, to understand the underlying assumptions about the body, political community and the world, the objectives and workings of various strategies, both violent and nonviolent, the relationship between strategic choice and, on the one-hand, the contextual, social and/or political location of the agents, and, on the other hand, the relevance of these strategies for understanding contemporary global politics, ethics and science.

Programme module type:	Optional for International Political Theory and International Security Studies Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures and 2 office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof K M Fierke

IR5059 Political Order and Violence in the Middle East

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module examines the causes and consequences of political order and violence in the Middle East. What constitutes a political order? Why and how are political orders established? What role does violence play in constituting political orders? Why and how does violence ensue with the breakdown of political orders? Drawing on IR, Sociological, and State-formation theories, we will examine different episodes of order and violence in contemporary Middle East politics: from the collapse of the Ottoman Empire to the latest Arab Uprisings, looking at colonial orders, regime-society violence, violent resistance against occupation, and civil wars.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Anti-requisite(s):	IR4601
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.
Assessment pattern:	Take-home Written Examination = 40%, Coursework (Essay 50%, Presentation 10%) = 60%
Module coordinator:	Dr A Saouli

IR5061 Security and Justice Institutions in World Politcs

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue (except week 1, Tue 4.00 pm - 6.00 pm)			

This module examines the development and efficacy of institutions in the fields of peace, security, and justice. The module has three core objectives. It first provides a brief survey of the range of actors (including states, intergovernmental organizations, and nongovernmental organisations) involved in contemporary global governance. It then seeks to familiarize students with leading theoretical accounts of the origins and impact of international institutions. Particular attention is given to realist, institutionalist, and constructivist approaches, but other views are incorporated as well. Finally, the module turns to a close consideration of a series of contemporary case studies such as the United Nations Security Council, North Atlantic Treaty Organization, nuclear weapons disarmament,International Court of Justice, International Criminal Court, and the human rights regime.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Bower

IR5062 Transitional Justice and Post-Conflict Reconstruction in Latin America

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	4.00 pm - 6.00 pm Tue			

The module will present a detailed introduction to the processes of transitional justice and peacebuilding in Latin America since the Third Wave of democratisation during the 1980s. The approach taken in the module will be to analyse transitional justice and, ultimately, to contrast the theory and practice of TJ, peacebuilding and postconflict reconstruction. The module will engage with four detailed empirical case studies: Argentina, Chile, Guatemala and Colombia. The module addresses and evaluates key theoretical frameworks relating to TJ, peacebuilding and postwar reconstruction, and will be relevant to students interested in developing a career in public policy and policymaking in national and international institutions.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr R Brett

IR5063 Spaces of Securitization

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

The module explores the relationship between space and securitization. Taking stock of existing literature, it is plain that many scholars are calling for greater attention to be paid to contextual considerations and practices. Indeed most 'second generation' scholars argue that context is vital for understanding how (de)securitization is constructed, enacted and contested. This module will contribute to these ongoing conversations by highlighting that space remains an understudied aspect of how securitization unfolds in theory and in practice. Introducing the 'spatial' turn into securitization studies is fruitful as it casts new light on everyday dimensions at play when security speech acts are uttered and enacted. This allows us to investigate a number of banal spaces from critical perspectives and begin to discover even more improbable spaces where securitization can occur. By undertaking such a journey they will start to cultivate their own ethnography, voice, views and insights.

Programme module type:	Optional for Peace and Conflict Studies, International Security Studies and other MLitt programmes within the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture (x 11 weeks), 1 tutorials (x 10 weeks) and two office hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr F Donnelly

IR5064 The Military in Politics

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Fri			

Military forces are called upon to defend against armed aggression, both foreign and domestic. Yet militaries can also disobey civilian leaders, allow governments to fall, and even overthrow the political order themselves. The loyalty and effectiveness of security forces are thus vital to government security and stability. This module introduces students to the study of civil-military relations, beginning from the perspective of the armed forces and when they directly intervene in politics, examining the techniques, causes, and means for preventing coups d'état as well as the consequences of coup-proofing for other dimensions of military effectiveness. We then analyze how armed forces impact states¿ domestic politics, including their behaviour during uprisings and their affect on democratic governance. Finally, we examine different theories of how civilian leaders should manage armed forces and assess the acute challenges that leaders face as they respond to international crises.

Programme module type:	Optional for International Security Studies and all other programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Harkness
Module teaching staff:	Dr K Harkness, Dr M De Vore

IR5066 The Global Politics of Everyday Life

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	1.00 pm - 3.00 pm Mon			

IR has traditionally focused on supposedly 'official' actors, sites and practices. But increasingly IR is exploring 'ordinary' individuals, their 'mundane' practices and quotidian behaviours. Following the recent turn to everyday IR, this module explores how everyday life and global politics are co-constitutive. Drawing on a range of interdisciplinary theoretical perspectives, students will critically interrogate how it is in the everyday that the global is situated and produced. Whether travel, fashion, or popular culture, this module reveals how these everyday objects, structures and practices mutually constitute global power relations that are messy, complex and bolster often problematic logics of militarisation, gender, race, class, and so on. This module will therefore introduce students to (and encourage them to engage in) alternative and creative ways of thinking, and also alternative and creative sites and forms of scholarship, learning and assessment.

Programme module type:	Optional for International Security Studies, International Political Theory and Peace and Conflict Studies Postgraduate programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Mills

IR5408 Global Constitutionalism

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	One of 1.00 pm - 3.00 pm or 3.00 pm - 5.00 pm Tue			

This module will explore the role of constitutional thinking at the global level. It will allow students to read theorists of constitutional thought - ancient, mediaeval and modern - in light of increasing demands for the rule of law at the global level. The module will explore specific thinkers and key themes in the area of constitutionalism. The module will draw upon legal theory and international law as well as broader themes in international political theory.

Programme module type:	Optional for International Political Theory and Peace and Conflict Studies, Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Lang

IR5412 'Reason of State': Origin, Nature and Career of a Concept

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

The module examines the meaning, origins, development, and significance of the notion of 'reason of state' in western political thought. It explores the differences between ' reason of state', 'national interest', 'public interest' and 'common interest'. It engages with a variety of writers from different centuries (e.g. Aristotle, Cicero, Tacitus, John of Salisbury, Machiavelli, Althusius, Botero, Fichte, Morgenthau, Gramsci, Schmitt, Foucault). It encourages students to demonstrate their grasp of the concept by explaining how it works in contemporary global politics.

Programme module type:	Optional for International Political Theory Postgraduate Taught Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Slomp

IR5415 Social Movements and Ideologies

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module examines prominent ideologies in the modern history of the Middle East, and the role ideas play in the political mobilisation of society. The module draws particular attention to anti-colonial, nationalist, religious and liberal social movements; it compares the formation, implementation and evolution of the different sets of ideologies, and the relationships between the social movements and the state. The module aims to a) deepen students' understanding of ideologies in the region, beyond culturalist and power-political frameworks, and b) to highlight the important role of societal forces in Middle East politics.

Programme module type:	Optional for all Postgraduate Programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of seminars (x 11 weeks), 1-hour tutorial (x 11 weeks), 2 office consutation hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Gani

IR5528 Social Movements, Revolutions and Authoritarianism in North Africa

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	1.00 pm - 3.00 pm Thu			

This module examines the dynamics and outcomes of social protests in the authoritarian regimes of North African region in the post-colonial period. It aims to describe the structural and inter-subjective features of democratic, authoritarian and revolutionary change, and to locate them in vis-à-vis the evolution of regional politics and of the international system. It describes the specificities and dilemmas of authoritarian and democratic governance in each polity with a particular focus on the developments of the last decade (post-2001). It examines in details the relationship between the state and social movements within the larger context of processes of political and economic liberalisation as well as regional (north-south) integration.

Programme module type:	Optional for Middle East and Central Asia Security Studies and all other Postgraduate Programmes in the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Volpi

Other optional modules are available - see the pdf online called
International Relations - optional modules 2017-2018.

Masters in International Security Studies

Programme Requirements

International Security Studies - MLitt
IR5001 (30 credits) **and** IR5036 (30 credits) **and**   60 credits from Module List: IR5004 - IR5095, IR5403 - IR5449, IR5526 - IR5528, IR5721 - IR5749   **and** IR5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year

MPhil:

120 credits from the Taught Element, 30 credits from IR5601, plus a thesis of not more than 40,000 words.

Compulsory modules:

IR5001 International Security				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	one of 10.00 am - 12.00 noon Wed or 11.00 am - 1.00 pm Thu - In week 1 Thu session changed to Tue 2.00 pm - 4.00 pm.			
This module introduces students to important issues and significant debates in security studies. We begin by examining the nature of war, strategy, and alliances. We then analyze the structure and impact of military power, including both conventional and nuclear weapons. We then probe the causes of interstate war, from domestic politics to the structure of the state system, to bargaining models. Finally, we turn to domestic conflict and delve into the dynamics of insurgency, counterinsurgency, and peacekeeping.				
Programme module type:	Compulsory for International Security Studies Postgraduate Programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	3-hour Written Examination = 40%, Midterm Examination = 20%, Coursework = 40%			
Module coordinator:	Dr H Tamm			

IR5036 Critical Security Studies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am -11.00 am Mon			

This module will examine the challenge to traditional conceptions of security presented by the emergence of Critical Security Studies since the end of the Cold War. Students will explore what it means to study the concept and practice of security from a critical perspective. They will examine the various theoretical traditions that have informed critical security studies and the methodological implications for the analysis of different types of security contexts, ranging from alliance relations, terrorism, the environment, migration, famine, etc.

Programme module type:	Compulsory for International Security Studies Optional for International Relations MRes Programme. Optional for other Postgraduate Taught Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr C Gentry

IR5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	5.00 pm - 6.00 pm Thu or 11.00 am - 12.00 noon Fri			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for International Political Theory, International Security Studies, Middle East, Caucasus and Central Asian Security Studies and Peace and Conflict Studies MLitt Postgraduate Programmes and International Relations MRes Programme. Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	TBC

Compulsory for MPhil:

IR5601 Research Methods in International Relations				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			
This is a required module for all MRes, PhD and MPhil students in the School of International Relations. It is designed to assist students in understanding the purpose and approaches of international relations scholarship, and to assist them in developing and carrying out their research. As such, it addresses a range of topics, from the history and philosophy of the social sciences to specific research methods.				
Programme module type:	Compulsory for the completion of the MRes, PhD and MPhil Programmes in the School of International Relations.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof T Lang			

Optional modules:

IR5007 Terrorism and Liberal Democracy				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Wed			
This module addresses: conceptual and definitional issues concerning terrorism; the relationship of terrorism to other forms of political violence; the origins, dynamics and development of contemporary terrorism; the efficacy of terrorism as a political weapon; the dilemmas and challenges of liberal democratic state responses to terrorism; and case studies in terrorism and counter-terrorism. The module is convened by specialists from the Handa Centre for the Study of Terrorism and Political Violence (CSTPV) and the School of International Relations.				
Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies and Terrorism and Political Violence Postgraduate Taught Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour lecture, 1.5 hour tutorial per week + advertised office hours			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr N Brooke			
Module teaching staff:	Various			

IR5030 Religion and International Politics

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module explores the so-called 'global resurgence' of politicised religion, moving out from traditional studies of church-state relations in the West to selected case studies of religio-political interactions in the wider world. After an examination of various theoretical approaches to politics and religion emanating from both sociology and the study of international relations, the focus will be on themes - such as religion and the state, the nation, the international system, religious violence and peacemaking - and on cases - such as the role of the New Christian Right in the United States, political Islam, religious nationalism in the Indian sub-continent, or religious contributions to democratisation in Latin America. The use of specific themes and cases may vary from year to year, depending upon current developments in this area.

Programme module type:	Optional for International Security Studies Postgraduate Programme. Optional for Peace and Conflict Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof J P Anderson

IR5036 Critical Security Studies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am -11.00 am Mon			

This module will examine the challenge to traditional conceptions of security presented by the emergence of Critical Security Studies since the end of the Cold War. Students will explore what it means to study the concept and practice of security from a critical perspective. They will examine the various theoretical traditions that have informed critical security studies and the methodological implications for the analysis of different types of security contexts, ranging from alliance relations, terrorism, the environment, migration, famine, etc.

Programme module type:	Compulsory for International Security Studies Optional for International Relations MRes Programme. Optional for other Postgraduate Taught Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr C Gentry

IR5039 Political Economy of Conflict

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module provides a political economy perspective on conflict in a developing economy, introducing concepts and theoretical approaches of political economy and their application to situations involving conflict and violence. Economic arguments for a 'resource curse' and the explanatory binary of 'greed versus grievance' are interrogated and challenged for the absence of political, hence political economic, contextualisation and analysis. The complex network of commodities and goods traded between developed and developing economies are explored through a series of case studies and the increased securitisation of development in the twenty-first century is examined.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr W B Vlcek

IR5040 Emergent Great Powers

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Mon			

This module provides a comparative analysis of the emergence of India and China as great powers within the international system. Focusing upon the factors integral to such a phenomenon (from both theoretical and historical perspectives), students will build up a comprehensive understanding of these two states' past, contemporary and future global significance. After an assessment of differing orientating concepts from IR theory, the module will evaluate key factors concerning how India and China measure up as great powers, leading to an evaluation of the future challenges these two states will ace as they define their emergent roles in the twenty-first century.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Ogden

IR5051 Human Rights, Politics and Power

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Wed			

International legal discourses of human rights have evolved markedly since 1945 with the codification, implementation and enforcement of human rights as international public law. Despite this progress, human rights seem more pivotal in the world today than ever. What the 'war on terror' has highlighted is that military measures are hopeless if they ignore universal aspirations for social justice and human rights. As the title of the module suggests, the principal focus of this module is to explore the relationship between human rights, political discourses and power. More people that ever before believe strongly in the necessity of the inclusion of human rights considerations when thinking about actions at every level of societal interaction; personal, local, national and international.   The use of the concept is, however, frequently misused and the outcome of rights campaigns is often far from the original intention.   In exploring these complex issues the module is divided into three parts. In PART I attempts to ground rights in philosophy and international law will be explored. In PART II many theorists are now attempting to go beyond this divide to think through the potential for the concept in the process of social transformation. The social constructionist human rights and power will be introduced, as will postcolonialism. Drawing on this theoretical discussion a series of contemporary issues will be explored in PART III and the focus will be on suitability of the concept in any programme of social transformation by considering the role - nationally and internationally - of the legal system, economic relations, government and non-government organisations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1-hour seminar/tutorial
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr G S Sanghera

IR5053 The First World War and Its Impact on the Global System

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Wed			

The 100th anniversary of the First World War gives us a chance to reflect on how that conflict affected the domestic circumstances and the international system of both the contemporary period and since. International scholars often claim the world system fundamentally changed in 1914. This module will explore how that claim has been dealt with by international historians and by students of international order. It will therefore give an opportunity for students to reflect on the links between the history and political implications of a particular event as well as to look at how theorists of international order have built the Great War into their analyses. Students will be encouraged to examine both the War's contemporary (1914 - 1939) impact on international relations as well as the more recent debate on order and international society led by IR scholars from the 1990s and up till now, but also by international historians, looking in particular at the lasting impact of the war on issue areas like the Middle East, European Union and Great Power rivalry

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 1-hour lectur and 2 x 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof A Williams

IR5055 Agency and Strategy in Non-Western Political Thought

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Thu			

Eastern political strategies and thought, while often resting on different assumptions to their Western counterparts, have in a context of globalization spread into very different contexts than those from which they originated. Sun Tzu is included in the canon of realist thought and often informs contemporary corporate strategy; Gandhi's satyagraha has provided impetus to nonviolent movements across the globe; Thich Quang Duc's self-immolation in Vietnam (1963) has been imitated in a number of contexts since. Jihad has become a global phenomenon. These are strategies with origins in ancient Eastern thought that have been put to use in contemporary political struggles. The question of agency is important in so far as non-Western societies have for the last several hundred years been in a structurally weak position vis a vis the expansion of Western power across the globe. Non-western philosophies have informed strategies of resistance or independence but may, in very different ways, become significant as India and China become global players. There has been a lively debate within International Relations theory about the potential importance of alternative modes of thought, more indigenous to these cultures, in the evolution of the future strategies of these emerging powers. The purpose of this module is to explore a range of 'classic' and secondary texts that express different elements of non-Western thought, both ancient and contemporary, to understand the underlying assumptions about the body, political community and the world, the objectives and workings of various strategies, both violent and nonviolent, the relationship between strategic choice and, on the one-hand, the contextual, social and/or political location of the agents, and, on the other hand, the relevance of these strategies for understanding contemporary global politics, ethics and science.

Programme module type:	Optional for International Political Theory and International Security Studies Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures and 2 office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof K M Fierke

IR5059 Political Order and Violence in the Middle East

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module examines the causes and consequences of political order and violence in the Middle East. What constitutes a political order? Why and how are political orders established? What role does violence play in constituting political orders? Why and how does violence ensue with the breakdown of political orders? Drawing on IR, Sociological, and State-formation theories, we will examine different episodes of order and violence in contemporary Middle East politics: from the collapse of the Ottoman Empire to the latest Arab Uprisings, looking at colonial orders, regime-society violence, violent resistance against occupation, and civil wars.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Anti-requisite(s):	IR4601
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.
Assessment pattern:	Take-home Written Examination = 40%, Coursework (Essay 50%, Presentation 10%) = 60%
Module coordinator:	Dr A Saouli

IR5061 Security and Justice Institutions in World Politcs

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue (except week 1, Tue 4.00 pm - 6.00 pm)			

This module examines the development and efficacy of institutions in the fields of peace, security, and justice. The module has three core objectives. It first provides a brief survey of the range of actors (including states, intergovernmental organizations, and nongovernmental organisations) involved in contemporary global governance. It then seeks to familiarize students with leading theoretical accounts of the origins and impact of international institutions. Particular attention is given to realist, institutionalist, and constructivist approaches, but other views are incorporated as well. Finally, the module turns to a close consideration of a series of contemporary case studies such as the United Nations Security Council, North Atlantic Treaty Organization, nuclear weapons disarmament,International Court of Justice, International Criminal Court, and the human rights regime.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Bower

IR5062 Transitional Justice and Post-Conflict Reconstruction in Latin America

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	4.00 pm - 6.00 pm Tue			

The module will present a detailed introduction to the processes of transitional justice and peacebuilding in Latin America since the Third Wave of democratisation during the 1980s. The approach taken in the module will be to analyse transitional justice and, ultimately, to contrast the theory and practice of TJ, peacebuilding and postconflict reconstruction. The module will engage with four detailed empirical case studies: Argentina, Chile, Guatemala and Colombia. The module addresses and evaluates key theoretical frameworks relating to TJ, peacebuilding and postwar reconstruction, and will be relevant to students interested in developing a career in public policy and policymaking in national and international institutions.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr R Brett

IR5063 Spaces of Securitization

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

The module explores the relationship between space and securitization. Taking stock of existing literature, it is plain that many scholars are calling for greater attention to be paid to contextual considerations and practices. Indeed most 'second generation' scholars argue that context is vital for understanding how (de)securitization is constructed, enacted and contested. This module will contribute to these ongoing conversations by highlighting that space remains an understudied aspect of how securitization unfolds in theory and in practice. Introducing the 'spatial' turn into securitization studies is fruitful as it casts new light on everyday dimensions at play when security speech acts are uttered and enacted. This allows us to investigate a number of banal spaces from critical perspectives and begin to discover even more improbable spaces where securitization can occur. By undertaking such a journey they will start to cultivate their own ethnography, voice, views and insights.

Programme module type:	Optional for Peace and Conflict Studies, International Security Studies and other MLitt programmes within the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture (x 11 weeks), 1 tutorials (x 10 weeks) and two office hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr F Donnelly

IR5064 The Military in Politics

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2	
Planned timetable:	11.00 am - 1.00 pm Fri				

Military forces are called upon to defend against armed aggression, both foreign and domestic. Yet militaries can also disobey civilian leaders, allow governments to fall, and even overthrow the political order themselves. The loyalty and effectiveness of security forces are thus vital to government security and stability. This module introduces students to the study of civil-military relations, beginning from the perspective of the armed forces and when they directly intervene in politics, examining the techniques, causes, and means for preventing coups d'état as well as the consequences of coup-proofing for other dimensions of military effectiveness. We then analyze how armed forces impact states¿ domestic politics, including their behaviour during uprisings and their affect on democratic governance. Finally, we examine different theories of how civilian leaders should manage armed forces and assess the acute challenges that leaders face as they respond to international crises.

Programme module type:	Optional for International Security Studies and all other programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Harkness
Module teaching staff:	Dr K Harkness, Dr M De Vore

IR5066 The Global Politics of Everyday Life

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2	
Planned timetable:	1.00 pm - 3.00 pm Mon				

IR has traditionally focused on supposedly 'official' actors, sites and practices. But increasingly IR is exploring 'ordinary' individuals, their 'mundane' practices and quotidian behaviours. Following the recent turn to everyday IR, this module explores how everyday life and global politics are co-constitutive. Drawing on a range of interdisciplinary theoretical perspectives, students will critically interrogate how it is in the everyday that the global is situated and produced. Whether travel, fashion, or popular culture, this module reveals how these everyday objects, structures and practices mutually constitute global power relations that are messy, complex and bolster often problematic logics of militarisation, gender, race, class, and so on. This module will therefore introduce students to (and encourage them to engage in) alternative and creative ways of thinking, and also alternative and creative sites and forms of scholarship, learning and assessment.

Programme module type:	Optional for International Security Studies, International Political Theory and Peace and Conflict Studies Postgraduate programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Mills

IR5408 Global Constitutionalism

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	One of 1.00 pm - 3.00 pm or 3.00 pm - 5.00 pm Tue			

This module will explore the role of constitutional thinking at the global level. It will allow students to read theorists of constitutional thought - ancient, mediaeval and modern - in light of increasing demands for the rule of law at the global level. The module will explore specific thinkers and key themes in the area of constitutionalism. The module will draw upon legal theory and international law as well as broader themes in international political theory.

Programme module type:	Optional for International Political Theory and Peace and Conflict Studies, Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Lang

IR5412 'Reason of State': Origin, Nature and Career of a Concept

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Wed			

The module examines the meaning, origins, development, and significance of the notion of 'reason of state' in western political thought. It explores the differences between ' reason of state', 'national interest', 'public interest' and 'common interest'. It engages with a variety of writers from different centuries (e.g. Aristotle, Cicero, Tacitus, John of Salisbury, Machiavelli, Althusius, Botero, Fichte, Morgenthau, Gramsci, Schmitt, Foucault). It encourages students to demonstrate their grasp of the concept by explaining how it works in contemporary global politics.

Programme module type:	Optional for International Political Theory Postgraduate Taught Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Slomp

IR5415 Social Movements and Ideologies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module examines prominent ideologies in the modern history of the Middle East, and the role ideas play in the political mobilisation of society. The module draws particular attention to anti-colonial, nationalist, religious and liberal social movements; it compares the formation, implementation and evolution of the different sets of ideologies, and the relationships between the social movements and the state. The module aims to a) deepen students' understanding of ideologies in the region, beyond culturalist and power-political frameworks, and b) to highlight the important role of societal forces in Middle East politics.

Programme module type:	Optional for all Postgraduate Programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of seminars (x 11 weeks), 1-hour tutorial (x 11 weeks), 2 office consutation hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Gani

IR5528 Social Movements, Revolutions and Authoritarianism in North Africa

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	1.00 pm - 3.00 pm Thu			

This module examines the dynamics and outcomes of social protests in the authoritarian regimes of North African region in the post-colonial period. It aims to describe the structural and inter-subjective features of democratic, authoritarian and revolutionary change, and to locate them in vis-à-vis the evolution of regional politics and of the international system. It describes the specificities and dilemmas of authoritarian and democratic governance in each polity with a particular focus on the developments of the last decade (post-2001). It examines in details the relationship between the state and social movements within the larger context of processes of political and economic liberalisation as well as regional (north-south) integration.

Programme module type:	Optional for Middle East and Central Asia Security Studies and all other Postgraduate Programmes in the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Volpi

IR5821 The influence of seapower on history 1805-present

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5 pm Fri			

This module will look at the theory and practice of Maritime strategy from the Napoleonic Wars to the present day. We will do this by looking at a number of works on the theory of Maritime strategy and then applying those works to a series of historical case studies from the nineteenth and twentieth century. The overall objective of the module is that the student should have an understanding of Maritime strategy and its wider context within the history of warfare and what distinguishes successful from unsuccessful Maritime strategy. The module will be taught by a weekly 2 hour seminar in which we will discuss a number of assigned readings for each week.

Programme module type:	Optional for Strategic Studies
Pre-requisite(s):	IR5800, IR5801
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminar hours (x 11 weeks) 2 optional office hours (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L F Middup

IR5822 The American Way of War				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue			
This module will examine how the United States has entered, fought and then left the many wars in which it has been involved. The hope is not to come up with some overarching theory of how the US conducts itself, but to understand the different choices that it has faced and how it went about answering them. All three of these areas have been the subject of great debate. American entry into war has been examined from the point of view of economic interest, security concerns, high political decision-making and even public opinion. The way that the USA has fought wars has been even more controversial. One idea is that the country has been too reliant on equipment/technology/firepower, and has regularly lost its way politically. Finally, how the USA has ended up leaving its wars has been debated. There is a discussion over whether/how/if public opinion compels an administration to pull the USA out of war at different times, and just how 'victory' or 'defeat' should be defined.				
Programme module type:	Optional for Strategic Studies			
Pre-requisite(s):	IR5800, IR5801			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof P O'Brien			

Other optional modules are available - see the pdf online called International Relations - optional modules 2017-2018.

Masters in Middle East, Caucasus and Central Asian Security Studies

Programme Requirements

Middle East, Caucasus and Central Asian Security Studies - MLitt
IR5501 (30 credits) and 30 credits from Module List: IR5029, IR5058, IR5510, IR5527 **and** Between 30 and 40 credits from Module List: IR5059, IR5115, IR5415, IR5502, IR5518 - IR5520, IR5522 - IR5523, IR5525 - IR5526, IR5528, MH5111 **and** Between 30 and 40 credits from Module List: IR5029, IR5058 - IR5059, IR5502, IR5518 - IR5520, IR5522 - IR5523, IR5525 - IR5526, MH5111 **and** IR5099 (60 credits) **OR** IR5501 (30 credits) and 60 credits from Module List: IR5029, IR5058-IR5059, IR5502, IR5518 - IR5520, IR5522 - IR5523, IR5525 - IR5526, IR5528, MH5111 **and** Between 30 and 40 credits from Russian, Arabic or Persian modules appropriate to the student's level of proficiency. IR5099 (60 credits)

MPhil:

120 credits from the Taught Element, 30 credits from IR5601, plus a thesis of not more than 40,000 words.

Compulsory modules:

IR5501 Core in Middle East, Caucasus and Central Asian Security Studies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.00 pm Tue			

This module focuses on major themes in the study of international security and applies them to the study of the Middle East and Central Asia. These addressed may include war and political violence, nationalism and ethnic conflict, arms control and nuclear proliferation, democratisation and theories of globalisation as they impact on the region (e.g. clash of civilisations).

Programme module type:	Compulsory for Middle East, Caucasus and Central Asian Security Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2- to 3-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof R Hinnebusch, Prof R Fawn

IR5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	5.00 pm - 6.00 pm Thu or 11.00 am - 12.00 noon Fri			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for International Political Theory, International Security Studies, Middle East, Caucasus and Central Asian Security Studies and Peace and Conflict Studies MLitt Postgraduate Programmes and International Relations MRes Programme. Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision
Assessment pattern:	Coursework (Dissertation) = 100%

Optional modules (depending on pathway):

IR5510 Central Asia in World Order

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	11.00 am - 1.00 pm Wed			

Dramatically and unexpectedly, Central Asia was thrust to independence in 1991. Of all the Soviet republics, the five of Central Asia - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan - had been the largest net recipients of Soviet aid, had benefited most economically from the Soviet Union and had thus been the most reluctant to break from the Soviet empire. Once the path of independence was followed, each of these five states faced considerable ethnic, state, economic, social and foreign policy challenges. This course aims to analyse these nation- and state-building agendas, seeking to address critically some of the now widely held assumptions about this post-Soviet area. Moreover, located in one of the world's most strategic zones, between Russia, China and a troubled Middle East, Central Asia relies on its substantial human and natural resources in the renegotiation of its geopolitical status.

Programme module type:	Compulsory for Middle East, Caucasus and Central Asian Security Studies
	Optional for Middle East, Caucasus and Central Asian Security Studies (IR5029, IR5058, IR5510 or IR5527)
	Optional for International Security Studies Postgraduate Programme
	Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Fumagalli

IR5059 Political Order and Violence in the Middle East

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module examines the causes and consequences of political order and violence in the Middle East. What constitutes a political order? Why and how are political orders established? What role does violence play in constituting political orders? Why and how does violence ensue with the breakdown of political orders? Drawing on IR, Sociological, and State-formation theories, we will examine different episodes of order and violence in contemporary Middle East politics: from the collapse of the Ottoman Empire to the latest Arab Uprisings, looking at colonial orders, regime-society violence, violent resistance against occupation, and civil wars.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Anti-requisite(s):	IR4601
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.
Assessment pattern:	Take-home Written Examination = 40%, Coursework (Essay 50%, Presentation 10%) = 60%
Module coordinator:	Dr A Saouli

IR5415 Social Movements and Ideologies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module examines prominent ideologies in the modern history of the Middle East, and the role ideas play in the political mobilisation of society. The module draws particular attention to anti-colonial, nationalist, religious and liberal social movements; it compares the formation, implementation and evolution of the different sets of ideologies, and the relationships between the social movements and the state. The module aims to a) deepen students' understanding of ideologies in the region, beyond culturalist and power-political frameworks, and b) to highlight the important role of societal forces in Middle East politics.

Programme module type:	Optional for all Postgraduate Programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of seminars (x 11 weeks), 1-hour tutorial (x 11 weeks), 2 office consutation hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Gani

IR5518 Conflict in the Middle East

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Mon			

This module examines conflict in the modern Middle East looking at the causes, development and consequences of conflict in the region including interstate, civil war, ethnic, religious and terrorism. It examines the historical formation of the nation state system in the Middle East and the development of competing ideologies. The legacies of these processes are explored through case studies including the Arab-Israeli conflict, Lebanon and Iraq. The rise of political Islam in the region is explored in both its violent and non-violent manifestations. The region has been characterised by authoritarian regimes and this legacy and the impact of the 2011 Uprisings is examined including conflicts in Syria, Libya and Yemen. The link between identity and threat is discussed in relation to the Islamic Republic of Iran and its impact on regional security. External intervention in the region is addressed in relation to Iraq post-2003 and debates relating to responses to the 2011 Uprisings.

Programme module type:	Optional for Middle East, Caucasus and Central Asian Security Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar per week and 1 tutorial per fortnight.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr F McCallum

IR5520 International Relations of the Modern Middle East

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Thu			

This module examines the arena of Middle East international relations by looking at the formation of the Middle East regional system, its special characteristics, and the impact on it of the global system. It also looks at the foreign policy process inside Middle East states through a comparative case study approach, including studies of the Arab oil monarchies (such as Saudi Arabia), the Arab authoritarian republics (Egypt, Syria and Iraq), Israel, Iran and Turkey. Finally the patterns of regional conflict and order which result from state behaviour are examined.

Programme module type:	Optional for Middle Eastern and Central Asian Security Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 x 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof R Hinnebusch

IR5528 Social Movements, Revolutions and Authoritarianism in North Africa

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	1.00 pm - 3.00 pm Thu			

This module examines the dynamics and outcomes of social protests in the authoritarian regimes of North African region in the post-colonial period. It aims to describe the structural and inter-subjective features of democratic, authoritarian and revolutionary change, and to locate them in vis-à-vis the evolution of regional politics and of the international system. It describes the specificities and dilemmas of authoritarian and democratic governance in each polity with a particular focus on the developments of the last decade (post-2001). It examines in details the relationship between the state and social movements within the larger context of processes of political and economic liberalisation as well as regional (north-south) integration.

Programme module type:	Optional for Middle East and Central Asia Security Studies and all other Postgraduate Programmes in the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Volpi

**For undergraduate language modules, see:
http://www.st-andrews.ac.uk/coursecatalogue/ug**

**Other optional modules are available - see the pdf online called
International Relations - optional modules 2017-2018.**

Masters in Peace and Conflict Studies

Programme Requirements

Peace and Conflict Studies - MLitt
IR5151 (30 credits**) and** IR5701 (30 credits) **and** 60 credits from Module List: IR5004 - IR5095, IR5403 - IR5449, IR5721 - IR5749, LC5022 **and** IR5099 (60 credits) **Further requirements** Choose 180 credits in academic year

MPhil:

120 credits from the Taught Element, 30 credits from IR5601, plus a thesis of not more than 40,000 words.

Compulsory modules:

IR5151 Issues in Peace and Conflict					
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1	
Planned timetable:	4.00 pm - 6.00 pm Tue				
This is a core module for the Masters programme in Peace and Conflict Studies (PCS). It is explicitly designed to be taken alongside its allied core module, IR 5701 Peace and Conflict Theory. Like that module it is concerned with examining the fundamental nature of war and peace but it focuses on a comparative assessment of real world examples from the past and contemporary scene. In particular, it concentrates on evaluating practical approaches commonly undertaken to try to end conflict by various actors ranging from the benign ('can't we just sit down and talk about this?') to the risky ('should we bomb to end wars?') or even horrific ('why not kill them all?'). In short, it aims to encourage reflection on 'what works' in peace-building.					
Programme module type:	Compulsory for Peace and Conflict Studies Postgraduate Programme. Optional for International Relations MRes Programme				
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr R Brett				

IR5701 Peace and Conflict Theory

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	one of 10.00 am - 12.00 noon Tue and 3.00 pm - 5.00 pm Thu			

Since the end of the Cold War, the predominant forms through which conflict is waged have transformed, precipitating profound changes both in the nature of international and intra-State conflict and in those national and international efforts to resolve and transform conflict.

Understanding the nature of conflict and collective responses to it provides vital insights into the changing nature of the international system and into the emergence and development of those new (non-State) actors that have begun increasingly to influence and redefine it.

This module will analyse how and why the principal theoretical frameworks and practices employed to comprehend conflict, violence and peace building have evolved over the last decades, situating this analysis within a series of key case studies.

Programme module type:	Compulsory for the Peace and Conflict Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J McMullin

IR5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	5.00 pm - 6.00 pm Thu or 11.00 am - 12.00 noon Fri			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for International Political Theory, International Security Studies, Middle East, Caucasus and Central Asian Security Studies and Peace and Conflict Studies MLitt Postgraduate Programmes and International Relations MRes Programme. Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	TBC

Compulsory for MPhil:

IR5601 Research Methods in International Relations

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	11.00 am - 1.00 pm Tue			

This is a required module for all MRes, PhD and MPhil students in the School of International Relations. It is designed to assist students in understanding the purpose and approaches of international relations scholarship, and to assist them in developing and carrying out their research. As such, it addresses a range of topics, from the history and philosophy of the social sciences to specific research methods.

Programme module type:	Compulsory for the completion of the MRes, PhD and MPhil Programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Lang

Optional modules:

IR5007 Terrorism and Liberal Democracy

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module addresses: conceptual and definitional issues concerning terrorism; the relationship of terrorism to other forms of political violence; the origins, dynamics and development of contemporary terrorism; the efficacy of terrorism as a political weapon; the dilemmas and challenges of liberal democratic state responses to terrorism; and case studies in terrorism and counter-terrorism. The module is convened by specialists from the Handa Centre for the Study of Terrorism and Political Violence (CSTPV) and the School of International Relations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies and Terrorism and Political Violence Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour lecture, 1.5 hour tutorial per week + advertised office hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Brooke
Module teaching staff:	Various

IR5030 Religion and International Politics

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module explores the so-called 'global resurgence' of politicised religion, moving out from traditional studies of church-state relations in the West to selected case studies of religio-political interactions in the wider world. After an examination of various theoretical approaches to politics and religion emanating from both sociology and the study of international relations, the focus will be on themes - such as religion and the state, the nation, the international system, religious violence and peacemaking - and on cases - such as the role of the New Christian Right in the United States, political Islam, religious nationalism in the Indian sub-continent, or religious contributions to democratisation in Latin America. The use of specific themes and cases may vary from year to year, depending upon current developments in this area.

Programme module type:	Optional for International Security Studies Postgraduate Programme. Optional for Peace and Conflict Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof J P Anderson

IR5036 Critical Security Studies

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	10.00 am -11.00 am Mon			

This module will examine the challenge to traditional conceptions of security presented by the emergence of Critical Security Studies since the end of the Cold War. Students will explore what it means to study the concept and practice of security from a critical perspective. They will examine the various theoretical traditions that have informed critical security studies and the methodological implications for the analysis of different types of security contexts, ranging from alliance relations, terrorism, the environment, migration, famine, etc.

Programme module type:	Compulsory for International Security Studies Optional for International Relations MRes Programme. Optional for other Postgraduate Taught Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr C Gentry

IR5039 Political Economy of Conflict

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module provides a political economy perspective on conflict in a developing economy, introducing concepts and theoretical approaches of political economy and their application to situations involving conflict and violence. Economic arguments for a 'resource curse' and the explanatory binary of 'greed versus grievance' are interrogated and challenged for the absence of political, hence political economic, contextualisation and analysis. The complex network of commodities and goods traded between developed and developing economies are explored through a series of case studies and the increased securitisation of development in the twenty-first century is examined.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr W B Vlcek

IR5040 Emergent Great Powers

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Mon			

This module provides a comparative analysis of the emergence of India and China as great powers within the international system. Focusing upon the factors integral to such a phenomenon (from both theoretical and historical perspectives), students will build up a comprehensive understanding of these two states' past, contemporary and future global significance. After an assessment of differing orientating concepts from IR theory, the module will evaluate key factors concerning how India and China measure up as great powers, leading to an evaluation of the future challenges these two states will ace as they define their emergent roles in the twenty-first century.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Ogden

IR5051 Human Rights, Politics and Power

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Wed			

International legal discourses of human rights have evolved markedly since 1945 with the codification, implementation and enforcement of human rights as international public law. Despite this progress, human rights seem more pivotal in the world today than ever. What the 'war on terror' has highlighted is that military measures are hopeless if they ignore universal aspirations for social justice and human rights. As the title of the module suggests, the principal focus of this module is to explore the relationship between human rights, political discourses and power. More people that ever before believe strongly in the necessity of the inclusion of human rights considerations when thinking about actions at every level of societal interaction; personal, local, national and international.   The use of the concept is, however, frequently misused and the outcome of rights campaigns is often far from the original intention. In exploring these complex issues the module is divided into three parts. In PART I attempts to ground rights in philosophy and international law will be explored. In PART II many theorists are now attempting to go beyond this divide to think through the potential for the concept in the process of social transformation. The social constructionist human rights and power will be introduced, as will postcolonialism. Drawing on this theoretical discussion a series of contemporary issues will be explored in PART III and the focus will be on suitability of the concept in any programme of social transformation by considering the role - nationally and internationally - of the legal system, economic relations, government and non-government organisations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1-hour seminar/tutorial
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr G S Sanghera

IR5053 The First World War and Its Impact on the Global System

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Wed			

The 100th anniversary of the First World War gives us a chance to reflect on how that conflict affected the domestic circumstances and the international system of both the contemporary period and since. International scholars often claim the world system fundamentally changed in 1914. This module will explore how that claim has been dealt with by international historians and by students of international order. It will therefore give an opportunity for students to reflect on the links between the history and political implications of a particular event as well as to look at how theorists of international order have built the Great War into their analyses. Students will be encouraged to examine both the War's contemporary (1914 - 1939) impact on international relations as well as the more recent debate on order and international society led by IR scholars from the 1990s and up till now, but also by international historians, looking in particular at the lasting impact of the war on issue areas like the Middle East, European Union and Great Power rivalry

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 1-hour lectur and 2 x 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof A Williams

IR5055 Agency and Strategy in Non-Western Political Thought

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Thu			

Eastern political strategies and thought, while often resting on different assumptions to their Western counterparts, have in a context of globalization spread into very different contexts than those from which they originated. Sun Tzu is included in the canon of realist thought and often informs contemporary corporate strategy; Gandhi's satyagraha has provided impetus to nonviolent movements across the globe; Thich Quang Duc's self-immolation in Vietnam (1963) has been imitated in a number of contexts since. Jihad has become a global phenomenon. These are strategies with origins in ancient Eastern thought that have been put to use in contemporary political struggles. The question of agency is important in so far as non-Western societies have for the last several hundred years been in a structurally weak position vis a vis the expansion of Western power across the globe. Non-western philosophies have informed strategies of resistance or independence but may, in very different ways, become significant as India and China become global players. There has been a lively debate within International Relations theory about the potential importance of alternative modes of thought, more indigenous to these cultures, in the evolution of the future strategies of these emerging powers. The purpose of this module is to explore a range of 'classic' and secondary texts that express different elements of non-Western thought, both ancient and contemporary, to understand the underlying assumptions about the body, political community and the world, the objectives and workings of various strategies, both violent and nonviolent, the relationship between strategic choice and, on the one-hand, the contextual, social and/or political location of the agents, and, on the other hand, the relevance of these strategies for understanding contemporary global politics, ethics and science.

Programme module type:	Optional for International Political Theory and International Security Studies Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures and 2 office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof K M Fierke

IR5059 Political Order and Violence in the Middle East

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module examines the causes and consequences of political order and violence in the Middle East. What constitutes a political order? Why and how are political orders established? What role does violence play in constituting political orders? Why and how does violence ensue with the breakdown of political orders? Drawing on IR, Sociological, and State-formation theories, we will examine different episodes of order and violence in contemporary Middle East politics: from the collapse of the Ottoman Empire to the latest Arab Uprisings, looking at colonial orders, regime-society violence, violent resistance against occupation, and civil wars.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Anti-requisite(s):	IR4601
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.
Assessment pattern:	Take-home Written Examination = 40%, Coursework (Essay 50%, Presentation 10%) = 60%
Module coordinator:	Dr A Saouli

IR5061 Security and Justice Institutions in World Politcs

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Tue (except week 1, Tue 4.00 pm - 6.00 pm)			

This module examines the development and efficacy of institutions in the fields of peace, security, and justice. The module has three core objectives. It first provides a brief survey of the range of actors (including states, intergovernmental organizations, and nongovernmental organisations) involved in contemporary global governance. It then seeks to familiarize students with leading theoretical accounts of the origins and impact of international institutions. Particular attention is given to realist, institutionalist, and constructivist approaches, but other views are incorporated as well. Finally, the module turns to a close consideration of a series of contemporary case studies such as the United Nations Security Council, North Atlantic Treaty Organization, nuclear weapons disarmament,International Court of Justice, International Criminal Court, and the human rights regime.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Bower

IR5062 Transitional Justice and Post-Conflict Reconstruction in Latin America

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	4.00 pm - 6.00 pm Tue			

The module will present a detailed introduction to the processes of transitional justice and peacebuilding in Latin America since the Third Wave of democratisation during the 1980s. The approach taken in the module will be to analyse transitional justice and, ultimately, to contrast the theory and practice of TJ, peacebuilding and postconflict reconstruction. The module will engage with four detailed empirical case studies: Argentina, Chile, Guatemala and Colombia. The module addresses and evaluates key theoretical frameworks relating to TJ, peacebuilding and postwar reconstruction, and will be relevant to students interested in developing a career in public policy and policymaking in national and international institutions.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr R Brett

IR5063 Spaces of Securitization

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

The module explores the relationship between space and securitization. Taking stock of existing literature, it is plain that many scholars are calling for greater attention to be paid to contextual considerations and practices. Indeed most 'second generation' scholars argue that context is vital for understanding how (de)securitization is constructed, enacted and contested. This module will contribute to these ongoing conversations by highlighting that space remains an understudied aspect of how securitization unfolds in theory and in practice. Introducing the 'spatial' turn into securitization studies is fruitful as it casts new light on everyday dimensions at play when security speech acts are uttered and enacted. This allows us to investigate a number of banal spaces from critical perspectives and begin to discover even more improbable spaces where securitization can occur. By undertaking such a journey they will start to cultivate their own ethnography, voice, views and insights.

Programme module type:	Optional for Peace and Conflict Studies, International Security Studies and other MLitt programmes within the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture (x 11 weeks), 1 tutorials (x 10 weeks) and two office hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr F Donnelly

IR5064 The Military in Politics

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Fri			

Military forces are called upon to defend against armed aggression, both foreign and domestic. Yet militaries can also disobey civilian leaders, allow governments to fall, and even overthrow the political order themselves. The loyalty and effectiveness of security forces are thus vital to government security and stability. This module introduces students to the study of civil-military relations, beginning from the perspective of the armed forces and when they directly intervene in politics, examining the techniques, causes, and means for preventing coups d'état as well as the consequences of coup-proofing for other dimensions of military effectiveness. We then analyze how armed forces impact states¿ domestic politics, including their behaviour during uprisings and their affect on democratic governance. Finally, we examine different theories of how civilian leaders should manage armed forces and assess the acute challenges that leaders face as they respond to international crises.

Programme module type:	Optional for International Security Studies and all other programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Harkness
Module teaching staff:	Dr K Harkness, Dr M De Vore

IR5066 The Global Politics of Everyday Life

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	1.00 pm - 3.00 pm Mon			

IR has traditionally focused on supposedly 'official' actors, sites and practices. But increasingly IR is exploring 'ordinary' individuals, their 'mundane' practices and quotidian behaviours. Following the recent turn to everyday IR, this module explores how everyday life and global politics are co-constitutive. Drawing on a range of interdisciplinary theoretical perspectives, students will critically interrogate how it is in the everyday that the global is situated and produced. Whether travel, fashion, or popular culture, this module reveals how these everyday objects, structures and practices mutually constitute global power relations that are messy, complex and bolster often problematic logics of militarisation, gender, race, class, and so on. This module will therefore introduce students to (and encourage them to engage in) alternative and creative ways of thinking, and also alternative and creative sites and forms of scholarship, learning and assessment.

Programme module type:	Optional for International Security Studies, International Political Theory and Peace and Conflict Studies Postgraduate programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Mills

IR5408 Global Constitutionalism

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	One of 1.00 pm - 3.00 pm or 3.00 pm - 5.00 pm Tue			

This module will explore the role of constitutional thinking at the global level. It will allow students to read theorists of constitutional thought - ancient, mediaeval and modern - in light of increasing demands for the rule of law at the global level. The module will explore specific thinkers and key themes in the area of constitutionalism. The module will draw upon legal theory and international law as well as broader themes in international political theory.

Programme module type:	Optional for International Political Theory and Peace and Conflict Studies, Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Lang

IR5412 'Reason of State': Origin, Nature and Career of a Concept

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			
The module examines the meaning, origins, development, and significance of the notion of 'reason of state' in western political thought. It explores the differences between ' reason of state', 'national interest', 'public interest' and 'common interest'. It engages with a variety of writers from different centuries (e.g. Aristotle, Cicero, Tacitus, John of Salisbury, Machiavelli, Althusius, Botero, Fichte, Morgenthau, Gramsci, Schmitt, Foucault). It encourages students to demonstrate their grasp of the concept by explaining how it works in contemporary global politics.				
Programme module type:	Optional for International Political Theory Postgraduate Taught Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr G Slomp			

IR5415 Social Movements and Ideologies

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	9.00 am - 11.00 am Wed			
This module examines prominent ideologies in the modern history of the Middle East, and the role ideas play in the political mobilisation of society. The module draws particular attention to anti-colonial, nationalist, religious and liberal social movements; it compares the formation, implementation and evolution of the different sets of ideologies, and the relationships between the social movements and the state. The module aims to a) deepen students' understanding of ideologies in the region, beyond culturalist and power-political frameworks, and b) to highlight the important role of societal forces in Middle East politics.				
Programme module type:	Optional for all Postgraduate Programmes in the School of International Relations.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of seminars (x 11 weeks), 1-hour tutorial (x 11 weeks), 2 office consutation hours (x 12 weeks)			
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr J Gani			

LC5022 Approaches to International Law

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			
This module will explore the philosophy of international law. Its focus will be less on the history and more on underlying philosophical issues arising from the nature and practice of international law.				
Programme module type:	Optional for Intellectual History, International Political Theory, Legal and Constitutional Studies Taught Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof N Rengger			

Other optional modules are available - see the pdf online called International Relations - optional modules 2017-2018.

Master of Letters Strategic Studies

Programme Requirements

Strategic Studies - MLitt
IR5800 (30 credits) **and** IR5801 (30 credits) **and** 60 credits from Module List: IR5004 - IR5052, IR5403 - IR5449, IR5526 - IR5528, IR5721 - IR5749, HI5010 **and** 60 credits from Module List: IR5099, ME5099, MO5099

Compulsory modules:

IR5800 Modern War and Strategy				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Thu			
The module will provide students with essential knowledge of strategy and military history. It will be taught in tandem with the second core module of the MLitt in Strategic Studies, which focuses on the history of strategic thought. Taken together, both modules will equip students with an overview of the academic field of strategic studies. It will also help students acquire the necessary skills and techniques for independent further study of topics and questions in strategic studies.				
Programme module type:	Compulsory for Strategic Studies Postgraduate programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr P O'Brien			

IR5801 Strategic Thought				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Mon			
The module will provide students with essential knowledge of strategic theory and the history of strategic thought. It will equip students with an overview of the academic field of strategic studies. It will also help students acquire the necessary skills and techniques for independent further study of topics and questions in strategic studies.				
Programme module type:	Compulsory for Strategic Studies Postgraduate programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof H Strachan			

One of:

IR5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	5.00 pm - 6.00 pm Thu or 11.00 am - 12.00 noon Fri			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for International Political Theory, International Security Studies, Middle East, Caucasus and Central Asian Security Studies and Peace and Conflict Studies MLitt Postgraduate Programmes and International Relations MRes Programme. Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	TBC

ME5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by a specified date late in August.

Programme module type:	Compulsory for Mediaeval History MLitt Postgraduate Programme One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Programme. One of ME5099, MO5099 or IR5099 is compulsory for Strategic Studies.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision according to School guidelines
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Prof J Hudson

MO5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for The Book, Early Modern History, Intellectual History, Modern History, Reformation Studies, and Transnational History MLitt Postgraduate Programmes One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Optional for Central and East European Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr J Clark
Module teaching staff:	By arrangement

Optional modules:

IR5007 Terrorism and Liberal Democracy

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module addresses: conceptual and definitional issues concerning terrorism; the relationship of terrorism to other forms of political violence; the origins, dynamics and development of contemporary terrorism; the efficacy of terrorism as a political weapon; the dilemmas and challenges of liberal democratic state responses to terrorism; and case studies in terrorism and counter-terrorism. The module is convened by specialists from the Handa Centre for the Study of Terrorism and Political Violence (CSTPV) and the School of International Relations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies and Terrorism and Political Violence Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour lecture, 1.5 hour tutorial per week + advertised office hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Brooke
Module teaching staff:	Various

IR5030 Religion and International Politics

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module explores the so-called 'global resurgence' of politicised religion, moving out from traditional studies of church-state relations in the West to selected case studies of religio-political interactions in the wider world. After an examination of various theoretical approaches to politics and religion emanating from both sociology and the study of international relations, the focus will be on themes - such as religion and the state, the nation, the international system, religious violence and peacemaking - and on cases - such as the role of the New Christian Right in the United States, political Islam, religious nationalism in the Indian sub-continent, or religious contributions to democratisation in Latin America. The use of specific themes and cases may vary from year to year, depending upon current developments in this area.

Programme module type:	Optional for International Security Studies Postgraduate Programme. Optional for Peace and Conflict Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof J P Anderson

IR5036 Critical Security Studies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am -11.00 am Mon			

This module will examine the challenge to traditional conceptions of security presented by the emergence of Critical Security Studies since the end of the Cold War. Students will explore what it means to study the concept and practice of security from a critical perspective. They will examine the various theoretical traditions that have informed critical security studies and the methodological implications for the analysis of different types of security contexts, ranging from alliance relations, terrorism, the environment, migration, famine, etc.

Programme module type:	Compulsory for International Security Studies Optional for International Relations MRes Programme. Optional for other Postgraduate Taught Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr C Gentry

IR5040 Emergent Great Powers

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Mon			

This module provides a comparative analysis of the emergence of India and China as great powers within the international system. Focusing upon the factors integral to such a phenomenon (from both theoretical and historical perspectives), students will build up a comprehensive understanding of these two states' past, contemporary and future global significance. After an assessment of differing orientating concepts from IR theory, the module will evaluate key factors concerning how India and China measure up as great powers, leading to an evaluation of the future challenges these two states will ace as they define their emergent roles in the twenty-first century.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Ogden

IR5051 Human Rights, Politics and Power

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Wed			

International legal discourses of human rights have evolved markedly since 1945 with the codification, implementation and enforcement of human rights as international public law. Despite this progress, human rights seem more pivotal in the world today than ever. What the 'war on terror' has highlighted is that military measures are hopeless if they ignore universal aspirations for social justice and human rights. As the title of the module suggests, the principal focus of this module is to explore the relationship between human rights, political discourses and power. More people that ever before believe strongly in the necessity of the inclusion of human rights considerations when thinking about actions at every level of societal interaction; personal, local, national and international.   The use of the concept is, however, frequently misused and the outcome of rights campaigns is often far from the original intention. In exploring these complex issues the module is divided into three parts. In PART I attempts to ground rights in philosophy and international law will be explored. In PART II many theorists are now attempting to go beyond this divide to think through the potential for the concept in the process of social transformation. The social constructionist human rights and power will be introduced, as will postcolonialism. Drawing on this theoretical discussion a series of contemporary issues will be explored in PART III and the focus will be on suitability of the concept in any programme of social transformation by considering the role - nationally and internationally - of the legal system, economic relations, government and non-government organisations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1-hour seminar/tutorial
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr G S Sanghera

IR5408 Global Constitutionalism

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	One of 1.00 pm - 3.00 pm or 3.00 pm - 5.00 pm Tue			

This module will explore the role of constitutional thinking at the global level. It will allow students to read theorists of constitutional thought - ancient, mediaeval and modern - in light of increasing demands for the rule of law at the global level. The module will explore specific thinkers and key themes in the area of constitutionalism. The module will draw upon legal theory and international law as well as broader themes in international political theory.

Programme module type:	Optional for International Political Theory and Peace and Conflict Studies, Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Lang

IR5412 'Reason of State': Origin, Nature and Career of a Concept

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

The module examines the meaning, origins, development, and significance of the notion of 'reason of state' in western political thought. It explores the differences between ' reason of state', 'national interest', 'public interest' and 'common interest'. It engages with a variety of writers from different centuries (e.g. Aristotle, Cicero, Tacitus, John of Salisbury, Machiavelli, Althusius, Botero, Fichte, Morgenthau, Gramsci, Schmitt, Foucault). It encourages students to demonstrate their grasp of the concept by explaining how it works in contemporary global politics.

Programme module type:	Optional for International Political Theory Postgraduate Taught Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Slomp

IR5415 Social Movements and Ideologies

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module examines prominent ideologies in the modern history of the Middle East, and the role ideas play in the political mobilisation of society. The module draws particular attention to anti-colonial, nationalist, religious and liberal social movements; it compares the formation, implementation and evolution of the different sets of ideologies, and the relationships between the social movements and the state. The module aims to a) deepen students' understanding of ideologies in the region, beyond culturalist and power-political frameworks, and b) to highlight the important role of societal forces in Middle East politics.

Programme module type:	Optional for all Postgraduate Programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of seminars (x 11 weeks), 1-hour tutorial (x 11 weeks), 2 office consutation hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Gani

IR5528 Social Movements, Revolutions and Authoritarianism in North Africa

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	1.00 pm - 3.00 pm Thu			

This module examines the dynamics and outcomes of social protests in the authoritarian regimes of North African region in the post-colonial period. It aims to describe the structural and inter-subjective features of democratic, authoritarian and revolutionary change, and to locate them in vis-à-vis the evolution of regional politics and of the international system. It describes the specificities and dilemmas of authoritarian and democratic governance in each polity with a particular focus on the developments of the last decade (post-2001). It examines in details the relationship between the state and social movements within the larger context of processes of political and economic liberalisation as well as regional (north-south) integration.

Programme module type:	Optional for Middle East and Central Asia Security Studies and all other Postgraduate Programmes in the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr F Volpi

IR5821 The influence of seapower on history 1805-present

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	1.00 pm - 3.00 pm Tue			

This module will look at the theory and practice of Maritime strategy from the Napoleonic Wars to the present day. We will do this by looking at a number of works on the theory of Maritime strategy and then applying those works to a series of historical case studies from the nineteenth and twentieth century. The overall objective of the module is that the student should have an understanding of Maritime strategy and its wider context within the history of warfare and what distinguishes successful from unsuccessful Maritime strategy. The module will be taught by a weekly 2 hour seminar in which we will discuss a number of assigned readings for each week.

Programme module type:	Optional for Strategic Studies
Pre-requisite(s):	IR5800, IR5801
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminar hours (x 11 weeks) 2 optional office hours (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L F Middup

IR5822 The American Way of War

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Tue.			

This module will examine how the United States has entered, fought and then left the many wars in which it has been involved. The hope is not to come up with some overarching theory of how the US conducts itself, but to understand the different choices that it has faced and how it went about answering them. All three of these areas have been the subject of great debate. American entry into war has been examined from the point of view of economic interest, security concerns, high political decision-making and even public opinion. The way that the USA has fought wars has been even more controversial. One idea is that the country has been too reliant on equipment/technology/firepower, and has regularly lost its way politically. Finally, how the USA has ended up leaving its wars has been debated. There is a discussion over whether/how/if public opinion compels an administration to pull the USA out of war at different times, and just how 'victory' or 'defeat' should be defined

Programme module type:	Optional for Strategic Studies
Pre-requisite(s):	IR5800, IR5801
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P O'Brien

HI5010 Directed Reading in the History of War and Strategy				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	By agreement between tutor and student			

A directed reading project designed to encourage the development of skills of historical analysis related to the history of war and strategy, through concentrated study of topics chosen by the student in consultation with the tutor. The project will develop skills of research, analysis and presentation prior to the dissertation. As such, it will serve as a useful transition between the more structured teaching which characterises undergraduate work and the independence of postgraduate dissertations. Students taking this option will meet with their supervisor regularly in n individual tutorial to develop bibliographies, explore literature, discuss drafts of coursework and receive feedback on submitted work (which could be reviews of existing literature, bibliographic essays, essays on historical problems and issues, or explorations of primary source material.)

Programme module type:	Optional for Strategic Studies Taught Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial
Assessment pattern:	Coursework (2 x 3,000-word essays) = 100%
Module coordinator:	Prof G Rowlands
Module teaching staff:	Team taught

Other optional modules are available - see the pdf online called
International Relations - optional modules 2017-2018.

Masters in Terrorism and Political Violence - Full time programme

Programme Requirements

Terrorism and Political Violence - MLitt
IR5901 (30 credits) **and** IR5902 (30 credits) **and**   60 credits from Module List: IR5007, IR5033, IR5042, IR5904, IR5921 - IR5923 **and**   IR5999 (60 credits)

Compulsory modules:

IR5901 Fundamental Issues and Structures of Terrorism				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (lecture), 2.00 pm - 3.30 pm and 3.30 pm - 5.00 pm Tue (tutorials)			
This module is designed to present core conceptual issues. These issues will include: Terrorism as a field of study - emergence and evolution; Definitional, conceptual, typological and theoretical issues; History of Terrorism; Ideology, Religion and Terrorism; Terrorist Organisations and Campaigns - stand-alone terrorism and terrorism combined with guerrilla warfare and political party work; Terrorism and Democracy - legal and human rights issues; Terrorism and Repression - counter-insurgency and counter-terror; Terrorism and Domestic and International Conflict - asymmetric warfare and humanitarian issues; Terrorism and Crime - linkage and law enforcement issues; Terrorism and Communication - propaganda and psychological warfare. We will cover three structures in relation to these concepts. Inside terrorist organisations and their support groups: Profiles of the most active terrorist groups - case studies. The structure of the international system and international counter-terrorist measures. Victims of terrorism and their national and transnational support organisations.				
Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - full time mode. Optional for International Relations MRes Programme			
Anti-requisite(s):	IR5951		**Required for:**	IR5999
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1.5-hour tutorial per week + advertised office hours, plus online teaching materials.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr P Lehr			
Module teaching staff:	Various			

IR5902 Research Methods

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1	
Planned timetable:	3.00 pm Mon (lecture) 10.30 am - 11.30 pm Tue (tutorial)				

This module will present appropriate research methods to enable students to critically understand the professional literature, and to lay the foundations to enable students to engage in further research. The broad aim of this module is to provide students with sufficient research skills to identify, read and understand professional literature, and to undertake their own research activities. It will introduce critical elements of research methodology, introduce and develop skills in qualitative and quantitative research methodologies, describe and illustrate literature and documentation search and retrieval strategies, and provide an introduction to the role of the intelligence analyst as a practical example.

Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - full time mode. Optional for International Relations MRes Programme		
Anti-requisite(s):	IR5952	**Required for:**	IR5999
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1.5-hour tutorial per week + advertised office hours plus online material.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr J Argomaniz		

IR5999 Dissertation for Terrorism and Political Violence MLitt Programme

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available to Terrorism Studies students only.			
Planned timetable:	3 x supervision sessions, at times to be arranged with the supervisor plus access to online dissertation teaching materials.			

This module allows students to undertake an in-depth investigationresearch into issues within or related to the field of Terrorism Studies and to prepare a 15,000 000-word (approximately) dissertation. The dissertation will make use of skills acquired during the Postgraduate Diploma to identify, investigate, analyse and report upon an area of contemporary concern or interest. Supervision of the dissertation will be provided.

Programme module type:	Compulsory for Terrorism and Political Violence MLitt Postgraduate Programme.
Pre-requisite(s):	IR5901, IR5902 and 60 credits (2 modules) from IR5007, IR5033, IR5042, IR5904, IR5921, IR5922
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	TBC

Optional modules:

IR5007 Terrorism and Liberal Democracy

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2	
Planned timetable:	11.00 am - 1.00 pm Wed				

This module addresses: conceptual and definitional issues concerning terrorism; the relationship of terrorism to other forms of political violence; the origins, dynamics and development of contemporary terrorism; the efficacy of terrorism as a political weapon; the dilemmas and challenges of liberal democratic state responses to terrorism; and case studies in terrorism and counter-terrorism. The module is convened by specialists from the Handa Centre for the Study of Terrorism and Political Violence (CSTPV) and the School of International Relations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies and Terrorism and Political Violence Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour lecture, 1.5 hour tutorial per week + advertised office hours
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr N Brooke
Module teaching staff:	Various

IR5904 Terrorism and Theories of Collective Action

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2	
Planned timetable:	12.00 noon Mon (lecture), 10.00 am Tue (tutorial)				

Increasingly, terrorism and political violence is coming to be seen in the wider theoretical context of political collective action, social movement theory and 'contentious politics', a process which has been assisted on the one hand by this field's own growing interest in transnational activism, and recently by growing interest in civil resistance as a neglected area in the study of insurgency within the framework of conflict studies and IR. This module will address such issues as: What does it mean to take a 'political collective action' approach to terrorism? Social movement theory and terrorism; Terrorism and high-risk activism: understanding recruitment and mobilisation; Terrorism and the Collective Action Repertoire; New Social Movements, New Terrorism? Terrorism in the Context of Transnational Activism.

Programme module type:	Optional for the Terrorism and Political Violence Postgraduate Programme - full time mode.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1.5-hour tutorial per week + advertised office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Ramsay

International Relations - Terrorism and Political Violence - Full time - 2017/8 - Dec 2017

IR5921 Fundamentals of Terrorist Violence

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	4.00 pm Mon (lecture), 11.00 am - 12.00 Tue (tutorial)			

Motives, Enablers and Implications for State Responses: This module examines how combatants in terrorist groups are able to overcome inhibitions to killing. The nature of these inhibitions is examined, as is the range of circumstances which enables them to be overcome so that lethal violence can be justified, compelling and a source of satisfaction. The module draws not only on terrorism studies but also on scholarship from a wide range of subject areas including war studies, psychology, sociology, theology, anthropology, history and art. The focus is more on individuals' aims, aspirations, and ways of imagining themselves and their actions, rather than organisational and instrumental purposes. Theory will be explored through case studies. Resulting insights are used to adduce principles for state responses to political violence. The module thus builds on the tradition of scholarship at St Andrews that examines how political violence may be effectively countered in ways that are consonant with liberal democracy.

Programme module type:	Optional for the Terrorism and Political Violence Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1.5-hour tutorial per week + advertised office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Currie
Module teaching staff:	Various

IR5922 Terrorism after 1945

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm Thu (seminar) and 3.00 pm - 4.30 pm (tutorial) Thu			

This module will provide students with an overview of the evolution, characteristics, and decline of terrorist movements and campaigns since 1945 by looking at different forms of terrorism (ethnic, religious, social-revolutionary) as well as the responses that both states and international organisations have developed in order to cope with it. The module will also address state and state-sponsored terrorism and the problems that arise once a state actor is involved in terrorism. Moreover, it will examine why and under what circumstances terrorism and antiterrorism responses have been successful. Finally, students will take part in a simulation of UN antiterrorism negotiations in which they will represent a country, research this country's experience with and stance on terrorism and advance the respective government's key interest regarding a comprehensive UN antiterrorism convention.

Programme module type:	Optional for Terrorism and Political Violence Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar + advertised office hours
Assessment pattern:	Coursework = 100% (including presentation worth 20%)
Module coordinator:	Dr B Blumenau

IR5923 State Responses to Terrorism

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2

Planned timetable:	10.00 am - 12.30 pm Thu

This module takes a multi-faceted approach to studying state responses to terrorism. It addresses the effectiveness and crucially, the ethical implications of particular kinds of counter-terrorism, as well as the wider impact that responding to terrorism has on conflicts, and the relationship between states, terrorists, and society. Topics range from historical to contemporary debates, from domestic examples to international. Students are afforded the opportunity to delve deeper into case studies, exploring responses to terrorism in detail and gaining an appreciation for the role that counter-terrorism has had in shaping conflicts, for better and worse. Through integrated learning and teaching seminars, students will debate and discuss such issues as the security-liberty nexus, the effect that new technology such as drones has had on counter-terrorism, the value of intelligence, and the central importance of respect for civil liberties in defending society from non-state terrorism.

Programme module type:	Available to students on the MLitt in Terrorism and Political Violence. Limited availability to students on other School of International Relations MLitt pathways.		
Anti-requisite(s):	IR5903	Required for:	IR5999
Learning and teaching methods and delivery:	**Weekly contact**: 2.5-hour teaching and learning seminar (x 11 weeks)		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr K J McConaghy		

IR5924 Nationalism and Ethnic Conflict

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2

Planned timetable:	2.00 pm - 3.00 pm Tue and 10.00 am - 11.00 am Wed

The goal of the module is to familiarise students with different approaches that seek to explain how ethnicity and nationhood are created and maintained, how different forms of ethnic conflict and ethnic violence come about, and what possible mechanisms to contain nationalism and ethnic conflict are. The module takes a comparative and historical perspective and employs a variety of theoretical approaches to tackle the issues at hand, including primordial, constructivist, and instrumental approaches to identity, and rational-choice arguments, Marxism, institutionalism, and culturalist approaches to explain ethnic conflict. Thus, the module aims to support students to become more savvy in understanding, appreciating, and critiquing existing works on the topic, skills that in turn should help them to pursue their own research on nationalism and ethnic conflict, if they so choose.

Programme module type:	Available to students on the MLitt in Terrorism and Political Violence. Limited availability to students on other School of International Relations MLitt pathways.
Pre-requisite(s):	IR5901 and (IR5902 or IR5922)
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour seminar (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Muro

Master of Letters Terrorism and Political Violence

- Distance learning mode

Programme Requirements

Terrorism and Political Violence (distance learning) - PG Dip & MLitt
First year IR5951 (30 credits) **and** IR5952 (30 credits) Please balance your selections across the academic year **Second year** IR5954 (30 credits) and IR5955 (30 credits) Please balance your selections across the academic year IR5998 (60 credits) for MLitt

Compulsory modules – modules run concurrently for distance learners:

IR5951 Fundamental Issues and Structures of Terrorism (Distance learning)				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	1-hour lecture and 1-hour tutorial per fortnight + advertised office hours and online teaching materals.			
This module is the first of four of an elearning Postgraduate Diploma in Terrorism Studies, and is designed to present core conceptual issues. These issues will include: Terrorism as a field of study - emergence and evolution; Definitional, conceptual, typological and theoretical issues; History of Terrorism; Ideology, Religion and Terrorism; Terrorist Organisations and Campaigns - stand-alone terrorism and terrorism combined with guerrilla warfare and political party work; Terrorism and Democracy - legal and human rights issues; Terrorism and Repression - counter-insurgency and counter-terror; Terrorism and Domestic and International Conflict - asymmetric warfare and humanitarian issues; Terrorism and Crime - linkage and law enforcement issues; Terrorism and Communication - propaganda and psychological warfare. We will cover three structures in relation to these concepts. Inside terrorist organisations and their support groups: Profiles of the most active terrorist groups - case studies. The structure of the international system and international counter-terrorist measures. Victims of terrorism and their national and transnational support organisations.				
Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - distance learning mode.			
Anti-requisite(s):	IR5901		**Required for:**	IR5998
Learning and teaching methods and delivery:	**Weekly contact**: Distance learners having separate video or audio lectures and attend tutorials via video conferencing. Online support.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr N Brooke			
Module teaching staff:	Various			

IR5952 Research Methods (Distance learning)

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	Online material and 1-hour tutorial per fortnight + advertised office hours			

This module will present appropriate research methods to enable students to critically understand the professional literature, and to lay the foundations to enable students to engage in further research. The broad aim of this module is to provide students with sufficient research skills to identify, read and understand professional literature, and to undertake their own research activities. It will introduce critical elements of research methodology, introduce and develop skills in qualitative and quantitative research methodologies, describe and illustrate literature and documentation search and retrieval strategies, and provide an introduction to the role of the intelligence analyst as a practical example.

Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - distance learning mode.		
Anti-requisite(s):	IR5902	**Required for:**	IR5998
Learning and teaching methods and delivery:	**Weekly contact**: Distance learners having separate video or audio lectures and attend tutorials via video conferencing. Online support.		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr B Blumenau		
Module teaching staff:	Dr B Blumenau & Dr J Argomaniz		

IR5954 Distance Learning Electives

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	Part time - 1-hour lecture (if applicable - not all electives are delivered by lecture) and 1-hour tutorial per fortnight + advertised office hours plus online material.			

This module gives students the opportunity to apply the conceptual and theoretical knowledge gained in the other modules to selected areas of application reflecting where possible the students own interests and needs. Students will cover the following topics in the 2014/2015 academic year (depending on numbers):Critical Infrastructure Protection; Suicide Terrorism; Maritime Irregular Activities: Terrorism, Piracy and Organised Crime; Right wing terrorism and extremism; Terrorism and the Internet; Terrorism in the Age of Barbarism.

Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - distance learning mode.
Required for:	IR5998
Learning and teaching methods and delivery:	**Weekly contact**: Distance learners having separate video or audio lectures and attend tutorials via video conferencing. Online support.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Muro
Module teaching staff:	Various

IR5955 State Responses to Terrorism (Distance learning)

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to students taking the distance learning mode of Terrorism and Political Violence			
Planned timetable:	To be arranged.			
This module takes a multi-faceted approach to studying state responses to terrorism. It addresses the effectiveness and crucially, the ethical implications of particular kinds of counter-terrorism, as well as the wider impact that responding to terrorism has on conflicts, and the relationship between states, terrorists, and society. Topics range from historical to contemporary debates, from domestic examples to international. Students are afforded the opportunity to delve deeper into case studies, exploring responses to terrorism in detail and gaining an appreciation for the role that counter-terrorism has had in shaping conflicts, for better and worse. Through integrated learning and teaching seminars, students will debate and discuss such issues as the security-liberty nexus, the effect that new technology such as drones has had on counter-terrorism, the value of intelligence, and the central importance of respect for civil liberties in defending society from non-state terrorism.				
Programme module type:	Compulsory for the part-time Terrorism and Political Violence Postgraduate Programme - distance learning mode			
Pre-requisite(s):	IR5951		**Anti-requisite(s):**	IR5953
Learning and teaching methods and delivery:	**Weekly contact**: 11 hours of lectures and 11 hours of tutorials spread across two semesters			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr K J McConaghy			

Compulsory for the MLitt:

IR5998 Dissertation for Terrorism and Political Violence Studies MLitt Distance learning Programme

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	3 x supervision sessions, at times to be arranged with the supervisor plus access to online dissertation teaching materials.			
This module allows students to undertake an in-depth investigationresearch into issues within or related to the field of Terrorism Studies and to prepare a 15,000-word (approximately) dissertation. The dissertation will make use of skills acquired during the Postgraduate Diploma to identify, investigate, analyse and report upon an area of contemporary concern or interest. Supervision of the dissertation will be provided.				
Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - distance learning mode.			
Pre-requisite(s):	IR5951, IR5952, IR5953 & IR5954		**Anti-requisite(s):**	IR5999
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	TBC			

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

International Relations - optional modules

IR5001 International Security

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	one of 10.00 am - 12.00 noon Wed or 11.00 am - 1.00 pm Thu - In week 1 Thu session changed to Tue 2.00 pm - 4.00 pm.			
This module introduces students to important issues and significant debates in security studies. We begin by examining the nature of war, strategy, and alliances. We then analyze the structure and impact of military power, including both conventional and nuclear weapons. We then probe the causes of interstate war, from domestic politics to the structure of the state system, to bargaining models. Finally, we turn to domestic conflict and delve into the dynamics of insurgency, counterinsurgency, and peacekeeping.				
Programme module type:	Compulsory for International Security Studies Postgraduate Programme. Optional for International Relations MRes Programme			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.			
Assessment pattern:	3-hour Written Examination = 40%, Midterm Examination = 20%, Coursework = 40%			
Module coordinator:	Dr H Tamm			

IR5007 Terrorism and Liberal Democracy

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			
This module addresses: conceptual and definitional issues concerning terrorism; the relationship of terrorism to other forms of political violence; the origins, dynamics and development of contemporary terrorism; the efficacy of terrorism as a political weapon; the dilemmas and challenges of liberal democratic state responses to terrorism; and case studies in terrorism and counter-terrorism. The module is convened by specialists from the Handa Centre for the Study of Terrorism and Political Violence (CSTPV) and the School of International Relations.				
Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies and Terrorism and Political Violence Postgraduate Taught Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour lecture, 1.5 hour tutorial per week + advertised office hours			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr N Brooke			
Module teaching staff:	Various			

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5030 Religion and International Politics

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module explores the so-called 'global resurgence' of politicised religion, moving out from traditional studies of church-state relations in the West to selected case studies of religio-political interactions in the wider world. After an examination of various theoretical approaches to politics and religion emanating from both sociology and the study of international relations, the focus will be on themes - such as religion and the state, the nation, the international system, religious violence and peacemaking - and on cases - such as the role of the New Christian Right in the United States, political Islam, religious nationalism in the Indian sub-continent, or religious contributions to democratisation in Latin America. The use of specific themes and cases may vary from year to year, depending upon current developments in this area.

Programme module type:	Optional for International Security Studies Postgraduate Programme.
	Optional for Peace and Conflict Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof J P Anderson

IR5036 Critical Security Studies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am -11.00 am Mon			

This module will examine the challenge to traditional conceptions of security presented by the emergence of Critical Security Studies since the end of the Cold War. Students will explore what it means to study the concept and practice of security from a critical perspective. They will examine the various theoretical traditions that have informed critical security studies and the methodological implications for the analysis of different types of security contexts, ranging from alliance relations, terrorism, the environment, migration, famine, etc.

Programme module type:	Compulsory for International Security Studies
	Optional for International Relations MRes Programme.
	Optional for other Postgraduate Taught Programmes within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-hour tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr C Gentry

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5039 Political Economy of Conflict

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module provides a political economy perspective on conflict in a developing economy, introducing concepts and theoretical approaches of political economy and their application to situations involving conflict and violence. Economic arguments for a 'resource curse' and the explanatory binary of 'greed versus grievance' are interrogated and challenged for the absence of political, hence political economic, contextualisation and analysis. The complex network of commodities and goods traded between developed and developing economies are explored through a series of case studies and the increased securitisation of development in the twenty-first century is examined.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr W B Vlcek

IR5040 Emergent Great Powers

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Mon			

This module provides a comparative analysis of the emergence of India and China as great powers within the international system. Focusing upon the factors integral to such a phenomenon (from both theoretical and historical perspectives), students will build up a comprehensive understanding of these two states' past, contemporary and future global significance. After an assessment of differing orientating concepts from IR theory, the module will evaluate key factors concerning how India and China measure up as great powers, leading to an evaluation of the future challenges these two states will ace as they define their emergent roles in the twenty-first century.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Ogden

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5051 Human Rights, Politics and Power

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Wed			

International legal discourses of human rights have evolved markedly since 1945 with the codification, implementation and enforcement of human rights as international public law. Despite this progress, human rights seem more pivotal in the world today than ever. What the 'war on terror' has highlighted is that military measures are hopeless if they ignore universal aspirations for social justice and human rights. As the title of the module suggests, the principal focus of this module is to explore the relationship between human rights, political discourses and power. More people that ever before believe strongly in the necessity of the inclusion of human rights considerations when thinking about actions at every level of societal interaction; personal, local, national and international. The use of the concept is, however, frequently misused and the outcome of rights campaigns is often far from the original intention. In exploring these complex issues the module is divided into three parts. In PART I attempts to ground rights in philosophy and international law will be explored. In PART II many theorists are now attempting to go beyond this divide to think through the potential for the concept in the process of social transformation. The social constructionist human rights and power will be introduced, as will postcolonialism. Drawing on this theoretical discussion a series of contemporary issues will be explored in PART III and the focus will be on suitability of the concept in any programme of social transformation by considering the role - nationally and internationally - of the legal system, economic relations, government and non-government organisations.

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Taught Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1-hour seminar/tutorial
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr G S Sanghera

IR5053 The First World War and Its Impact on the Global System

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Wed			

The 100th anniversary of the First World War gives us a chance to reflect on how that conflict affected the domestic circumstances and the international system of both the contemporary period and since. International scholars often claim the world system fundamentally changed in 1914. This module will explore how that claim has been dealt with by international historians and by students of international order. It will therefore give an opportunity for students to reflect on the links between the history and political implications of a particular event as well as to look at how theorists of international order have built the Great War into their analyses. Students will be encouraged to examine both the War's contemporary (1914 - 1939) impact on international relations as well as the more recent debate on order and international society led by IR scholars from the 1990s and up till now, but also by international historians, looking in particular at the lasting impact of the war on issue areas like the Middle East, European Union and Great Power rivalry

Programme module type:	Optional for International Political Theory, International Security Studies, Peace and Conflict Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 1-hour lectur and 2 x 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof A Williams

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5055 Agency and Strategy in Non-Western Political Thought

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	2.00 pm - 4.00 pm Thu			

Eastern political strategies and thought, while often resting on different assumptions to their Western counterparts, have in a context of globalization spread into very different contexts than those from which they originated. Sun Tzu is included in the canon of realist thought and often informs contemporary corporate strategy; Gandhi's satyagraha has provided impetus to nonviolent movements across the globe; Thich Quang Duc's self-immolation in Vietnam (1963) has been imitated in a number of contexts since. Jihad has become a global phenomenon. These are strategies with origins in ancient Eastern thought that have been put to use in contemporary political struggles. The question of agency is important in so far as non-Western societies have for the last several hundred years been in a structurally weak position vis a vis the expansion of Western power across the globe. Non-western philosophies have informed strategies of resistance or independence but may, in very different ways, become significant as India and China become global players. There has been a lively debate within International Relations theory about the potential importance of alternative modes of thought, more indigenous to these cultures, in the evolution of the future strategies of these emerging powers. The purpose of this module is to explore a range of 'classic' and secondary texts that express different elements of non-Western thought, both ancient and contemporary, to understand the underlying assumptions about the body, political community and the world, the objectives and workings of various strategies, both violent and nonviolent, the relationship between strategic choice and, on the one-hand, the contextual, social and/or political location of the agents, and, on the other hand, the relevance of these strategies for understanding contemporary global politics, ethics and science.

Programme module type:	Optional for International Political Theory and International Security Studies Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures and 2 office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof K M Fierke

IR5059 Political Order and Violence in the Middle East

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

This module examines the causes and consequences of political order and violence in the Middle East. What constitutes a political order? Why and how are political orders established? What role does violence play in constituting political orders? Why and how does violence ensue with the breakdown of political orders? Drawing on IR, Sociological, and State-formation theories, we will examine different episodes of order and violence in contemporary Middle East politics: from the collapse of the Ottoman Empire to the latest Arab Uprisings, looking at colonial orders, regime-society violence, violent resistance against occupation, and civil wars.

Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.
Anti-requisite(s):	IR4601
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.
Assessment pattern:	Take-home Written Examination = 40%, Coursework (Essay 50%, Presentation 10%) = 60%
Module coordinator:	Dr A Saouli

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5061 Security and Justice Institutions in World Politcs

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue (except week 1, Tue 4.00 pm - 6.00 pm)			
This module examines the development and efficacy of institutions in the fields of peace, security, and justice. The module has three core objectives. It first provides a brief survey of the range of actors (including states, intergovernmental organizations, and nongovernmental organisations) involved in contemporary global governance. It then seeks to familiarize students with leading theoretical accounts of the origins and impact of international institutions. Particular attention is given to realist, institutionalist, and constructivist approaches, but other views are incorporated as well. Finally, the module turns to a close consideration of a series of contemporary case studies such as the United Nations Security Council, North Atlantic Treaty Organization, nuclear weapons disarmament,International Court of Justice, International Criminal Court, and the human rights regime.				
Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A Bower			

IR5062 Transitional Justice and Post-Conflict Reconstruction in Latin America

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	4.00 pm - 6.00 pm Tue			
The module will present a detailed introduction to the processes of transitional justice and peacebuilding in Latin America since the Third Wave of democratisation during the 1980s. The approach taken in the module will be to analyse transitional justice and, ultimately, to contrast the theory and practice of TJ, peacebuilding and postconflict reconstruction. The module will engage with four detailed empirical case studies: Argentina, Chile, Guatemala and Colombia. The module addresses and evaluates key theoretical frameworks relating to TJ, peacebuilding and postwar reconstruction, and will be relevant to students interested in developing a career in public policy and policymaking in national and international institutions.				
Programme module type:	Optional for all Postgraduate programmes in the School in International Relations.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 optional consultation hours			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr R Brett			

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5063 Spaces of Securitization

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

The module explores the relationship between space and securitization. Taking stock of existing literature, it is plain that many scholars are calling for greater attention to be paid to contextual considerations and practices. Indeed most 'second generation' scholars argue that context is vital for understanding how (de)securitization is constructed, enacted and contested. This module will contribute to these ongoing conversations by highlighting that space remains an understudied aspect of how securitization unfolds in theory and in practice. Introducing the 'spatial' turn into securitization studies is fruitful as it casts new light on everyday dimensions at play when security speech acts are uttered and enacted. This allows us to investigate a number of banal spaces from critical perspectives and begin to discover even more improbable spaces where securitization can occur. By undertaking such a journey they will start to cultivate their own ethnography, voice, views and insights.	

Programme module type:	Optional for Peace and Conflict Studies, International Security Studies and other MLitt programmes within the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture (x 11 weeks), 1 tutorials (x 10 weeks) and two office hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr F Donnelly

IR5064 The Military in Politics

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Fri			

Military forces are called upon to defend against armed aggression, both foreign and domestic. Yet militaries can also disobey civilian leaders, allow governments to fall, and even overthrow the political order themselves. The loyalty and effectiveness of security forces are thus vital to government security and stability. This module introduces students to the study of civil-military relations, beginning from the perspective of the armed forces and when they directly intervene in politics, examining the techniques, causes, and means for preventing coups d'état as well as the consequences of coup-proofing for other dimensions of military effectiveness. We then analyze how armed forces impact states¿ domestic politics, including their behaviour during uprisings and their affect on democratic governance. Finally, we examine different theories of how civilian leaders should manage armed forces and assess the acute challenges that leaders face as they respond to international crises.	

Programme module type:	Optional for International Security Studies and all other programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Harkness
Module teaching staff:	Dr K Harkness, Dr M De Vore

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5066 The Global Politics of Everyday Life

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	1.00 pm - 3.00 pm Mon			

IR has traditionally focused on supposedly 'official' actors, sites and practices. But increasingly IR is exploring 'ordinary' individuals, their 'mundane' practices and quotidian behaviours. Following the recent turn to everyday IR, this module explores how everyday life and global politics are co-constitutive. Drawing on a range of interdisciplinary theoretical perspectives, students will critically interrogate how it is in the everyday that the global is situated and produced. Whether travel, fashion, or popular culture, this module reveals how these everyday objects, structures and practices mutually constitute global power relations that are messy, complex and bolster often problematic logics of militarisation, gender, race, class, and so on. This module will therefore introduce students to (and encourage them to engage in) alternative and creative ways of thinking, and also alternative and creative sites and forms of scholarship, learning and assessment.

Programme module type:	Optional for International Security Studies, International Political Theory and Peace and Conflict Studies Postgraduate programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr L Mills

IR5151 Issues in Peace and Conflict

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	4.00 pm - 6.00 pm Tue			

This is a core module for the Masters programme in Peace and Conflict Studies (PCS). It is explicitly designed to be taken alongside its allied core module, IR 5701 Peace and Conflict Theory. Like that module it is concerned with examining the fundamental nature of war and peace but it focuses on a comparative assessment of real world examples from the past and contemporary scene. In particular, it concentrates on evaluating practical approaches commonly undertaken to try to end conflict by various actors ranging from the benign ('can't we just sit down and talk about this?') to the risky ('should we bomb to end wars?') or even horrific ('why not kill them all?'). In short, it aims to encourage reflection on 'what works' in peace-building.

Programme module type:	Compulsory for Peace and Conflict Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr R Brett

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5401 Texts in International Political Theory

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Tue			

This module begins by examining the concept of 'international theory' as it has developed within International Relations since 1945 and introduces students to the broader idea of international political thought. The main body of the module consists of close readings and analysis of classic texts in the field, including works by figures such as Aristotle, Augustine, Hobbes, , Rousseau, Mill, Nietzsche and Marx along with more contemporary figures such as Rawls, Connolly, and Agamben.

Programme module type:	Compulsory for International Political Theory Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr V Paipais
Module teaching staff:	Prof A Lang, Dr V Paipais, Dr N Saunders

IR5402 Analysis and Interpretation in International Political Theory

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Wed			

This module introduces students to the methods and interpretive approaches that can be taken in the study of international political theory. It surveys a range of approaches to critical analysis, each examined through the work of prominent representatives, and considers questions regarding the conceptual, historical and normative interpretation of political theory texts.

Programme module type:	Compulsory for International Political Theory Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P Hayden

IR5408 Global Constitutionalism

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	One of 1.00 pm - 3.00 pm or 3.00 pm - 5.00 pm Tue			

This module will explore the role of constitutional thinking at the global level. It will allow students to read theorists of constitutional thought - ancient, mediaeval and modern - in light of increasing demands for the rule of law at the global level. The module will explore specific thinkers and key themes in the area of constitutionalism. The module will draw upon legal theory and international law as well as broader themes in international political theory.

Programme module type:	Optional for International Political Theory and Peace and Conflict Studies, Postgraduate Taught Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Lang

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5412 'Reason of State': Origin, Nature and Career of a Concept

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Wed			

The module examines the meaning, origins, development, and significance of the notion of 'reason of state' in western political thought. It explores the differences between ' reason of state', 'national interest', 'public interest' and 'common interest'. It engages with a variety of writers from different centuries (e.g. Aristotle, Cicero, Tacitus, John of Salisbury, Machiavelli, Althusius, Botero, Fichte, Morgenthau, Gramsci, Schmitt, Foucault). It encourages students to demonstrate their grasp of the concept by explaining how it works in contemporary global politics.

Programme module type:	Optional for International Political Theory Postgraduate Taught Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Slomp

IR5415 Social Movements and Ideologies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module examines prominent ideologies in the modern history of the Middle East, and the role ideas play in the political mobilisation of society. The module draws particular attention to anti-colonial, nationalist, religious and liberal social movements; it compares the formation, implementation and evolution of the different sets of ideologies, and the relationships between the social movements and the state. The module aims to a) deepen students' understanding of ideologies in the region, beyond culturalist and power-political frameworks, and b) to highlight the important role of societal forces in Middle East politics.

Programme module type:	Optional for all Postgraduate Programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours of seminars (x 11 weeks), 1-hour tutorial (x 11 weeks), 2 office consutation hours (x 12 weeks)
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Gani

IR5501 Core in Middle East, Caucasus and Central Asian Security Studies

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.00 pm Tue			

This module focuses on major themes in the study of international security and applies them to the study of the Middle East and Central Asia. These addressed may include war and political violence, nationalism and ethnic conflict, arms control and nuclear proliferation, democratisation and theories of globalisation as they impact on the region (e.g. clash of civilisations).

Programme module type:	Compulsory for Middle East, Caucasus and Central Asian Security Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2- to 3-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Prof R Hinnebusch, Prof R Fawn

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5510 Central Asia in World Order

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	11.00 am - 1.00 pm Wed			

Dramatically and unexpectedly, Central Asia was thrust to independence in 1991. Of all the Soviet republics, the five of Central Asia - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan - had been the largest net recipients of Soviet aid, had benefited most economically from the Soviet Union and had thus been the most reluctant to break from the Soviet empire. Once the path of independence was followed, each of these five states faced considerable ethnic, state, economic, social and foreign policy challenges. This course aims to analyse these nation- and state-building agendas, seeking to address critically some of the now widely held assumptions about this post-Soviet area. Moreover, located in one of the world's most strategic zones, between Russia, China and a troubled Middle East, Central Asia relies on its substantial human and natural resources in the renegotiation of its geopolitical status.

Programme module type:	Compulsory for Middle East, Caucasus and Central Asian Security Studies
	Optional for Middle East, Caucasus and Central Asian Security Studies (IR5029, IR5058, IR5510 or IR5527)
	Optional for International Security Studies Postgraduate Programme
	Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr M Fumagalli

IR5518 Conflict in the Middle East

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm - 4.00 pm Mon			

This module examines conflict in the modern Middle East looking at the causes, development and consequences of conflict in the region including interstate, civil war, ethnic, religious and terrorism. It examines the historical formation of the nation state system in the Middle East and the development of competing ideologies. The legacies of these processes are explored through case studies including the Arab-Israeli conflict, Lebanon and Iraq. The rise of political Islam in the region is explored in both its violent and non-violent manifestations. The region has been characterised by authoritarian regimes and this legacy and the impact of the 2011 Uprisings is examined including conflicts in Syria, Libya and Yemen. The link between identity and threat is discussed in relation to the Islamic Republic of Iran and its impact on regional security. External intervention in the region is addressed in relation to Iraq post-2003 and debates relating to responses to the 2011 Uprisings.

Programme module type:	Optional for Middle East, Caucasus and Central Asian Security Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar per week and 1 tutorial per fortnight.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr F McCallum

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5520 International Relations of the Modern Middle East				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm Tue - 5.00 pm Thu			
This module examines the arena of Middle East international relations by looking at the formation of the Middle East regional system, its special characteristics, and the impact on it of the global system. It also looks at the foreign policy process inside Middle East states through a comparative case study approach, including studies of the Arab oil monarchies (such as Saudi Arabia), the Arab authoritarian republics (Egypt, Syria and Iraq), Israel, Iran and Turkey. Finally the patterns of regional conflict and order which result from state behaviour are examined.				
Programme module type:	Optional for Middle Eastern and Central Asian Security Studies Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 x 2-hour seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof R Hinnebusch			

IR5528 Social Movements, Revolutions and Authoritarianism in North Africa				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	1.00 pm - 3.00 pm Thu			
This module examines the dynamics and outcomes of social protests in the authoritarian regimes of North African region in the post-colonial period. It aims to describe the structural and inter-subjective features of democratic, authoritarian and revolutionary change, and to locate them in vis-à-vis the evolution of regional politics and of the international system. It describes the specificities and dilemmas of authoritarian and democratic governance in each polity with a particular focus on the developments of the last decade (post-2001). It examines in details the relationship between the state and social movements within the larger context of processes of political and economic liberalisation as well as regional (north-south) integration.				
Programme module type:	Optional for Middle East and Central Asia Security Studies and all other Postgraduate Programmes in the School.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 tutorial.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr F Volpi			

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5529 International Society and Central Asia

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module combines IR Theory and Central Asian studies, exploiting the potential synergies of IR and Area Studies for students' learning. It examines how norms, rules and institutions regulating international relations at the global level, such as sovereignty, diplomacy and international law are understood, applied and contested in Central Asia, thus addressing issues of norm localisation and adaptation. There are three intended goals of this module. The first aim is to show how norms and practices that we assume to be universal find specific interpretations in Central Asia. The second aim is to understand how 'order' is achieved in Central Asia, avoiding regional conflict. The third aim is to portray the Central Asian states as performers of international relations, and not just as 'consumers'. This is the only module that sees international relations from the perspective of the Central Asian states, thus considering them as full protagonists in world politics.	

Programme module type:	Optional for the MLitt Middle East and Central Asian Security Studies, and all other programmes in the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar and 2 office hours.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr F C Buranelli

IR5533 The Political Lives of Objects in Eurasia

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am - 1.00 pm Wed			

Objects appear and disappear in the political lives of Eurasia but are rarely analysed in detail. Why do Eurasian nations argue about historical artefacts? Why do groups tear down monuments? How do functional objects such as bridges acquire deep historical value? When do everyday objects acquire political meaning? The module argues that the study of Eurasian politics needs to incorporate the material into its analysis and the study of objects in turn needs to take more seriously their political content. This content is not essentialised but is forever changing in relation to its subject and interpreter. The module encourages students to take a quite different range of objects, from the everyday examples of cigarettes or the telephone to ones of practical use such as bridges and canal pipes to those of aesthetic value such as a painting through to ones of overtly political ideology, such as public monuments.It is assessed through a variety of innovative techniques and approaches.	

Programme module type:	Optional for Middle East, Caucasus and Central Asian Security Studies and other Postgraduate programmes within the School of International Relations.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars.
Assessment pattern:	Coursework (including presentation, 15%, Class Test 30%) = 100%
Module coordinator:	Prof S Cummings

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5701 Peace and Conflict Theory

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	one of 10.00 am - 12.00 noon Tue and 3.00 pm - 5.00 pm Thu			

Since the end of the Cold War, the predominant forms through which conflict is waged have transformed, precipitating profound changes both in the nature of international and intra-State conflict and in those national and international efforts to resolve and transform conflict.

Understanding the nature of conflict and collective responses to it provides vital insights into the changing nature of the international system and into the emergence and development of those new (non-State) actors that have begun increasingly to influence and redefine it.

This module will analyse how and why the principal theoretical frameworks and practices employed to comprehend conflict, violence and peace building have evolved over the last decades, situating this analysis within a series of key case studies.

Programme module type:	Compulsory for the Peace and Conflict Studies Postgraduate Programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	3-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J McMullin

IR5800 Modern War and Strategy

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Thu			

The module will provide students with essential knowledge of strategy and military history. It will be taught in tandem with the second core module of the MLitt in Strategic Studies, which focuses on the history of strategic thought. Taken together, both modules will equip students with an overview of the academic field of strategic studies. It will also help students acquire the necessary skills and techniques for independent further study of topics and questions in strategic studies.

Programme module type:	Compulsory for Strategic Studies Postgraduate programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr P O'Brien

IR5801 Strategic Thought

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Mon			

The module will provide students with essential knowledge of strategic theory and the history of strategic thought. It will equip students with an overview of the academic field of strategic studies. It will also help students acquire the necessary skills and techniques for independent further study of topics and questions in strategic studies.

Programme module type:	Compulsory for Strategic Studies Postgraduate programme. Optional for International Relations MRes Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof H Strachan

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5901 Fundamental Issues and Structures of Terrorism

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (lecture), 2.00 pm - 3.30 pm and 3.30 pm - 5.00 pm Tue (tutorials)			
This module is designed to present core conceptual issues. These issues will include: Terrorism as a field of study - emergence and evolution; Definitional, conceptual, typological and theoretical issues; History of Terrorism; Ideology, Religion and Terrorism; Terrorist Organisations and Campaigns - stand-alone terrorism and terrorism combined with guerrilla warfare and political party work; Terrorism and Democracy - legal and human rights issues; Terrorism and Repression - counter-insurgency and counter-terror; Terrorism and Domestic and International Conflict - asymmetric warfare and humanitarian issues; Terrorism and Crime - linkage and law enforcement issues; Terrorism and Communication - propaganda and psychological warfare. We will cover three structures in relation to these concepts. Inside terrorist organisations and their support groups: Profiles of the most active terrorist groups - case studies. The structure of the international system and international counter-terrorist measures. Victims of terrorism and their national and transnational support organisations.				
Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - full time mode. Optional for International Relations MRes Programme			
Anti-requisite(s):	IR5951		**Required for:**	IR5999
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1.5-hour tutorial per week + advertised office hours, plus online teaching materials.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr P Lehr			
Module teaching staff:	Various			

IR5902 Research Methods

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 pm Mon (lecture) 10.30 am - 11.30 pm Tue (tutorial)			
This module will present appropriate research methods to enable students to critically understand the professional literature, and to lay the foundations to enable students to engage in further research. The broad aim of this module is to provide students with sufficient research skills to identify, read and understand professional literature, and to undertake their own research activities. It will introduce critical elements of research methodology, introduce and develop skills in qualitative and quantitative research methodologies, describe and illustrate literature and documentation search and retrieval strategies, and provide an introduction to the role of the intelligence analyst as a practical example.				
Programme module type:	Compulsory for the Terrorism and Political Violence Postgraduate Programme - full time mode. Optional for International Relations MRes Programme			
Anti-requisite(s):	IR5952		**Required for:**	IR5999
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1.5-hour tutorial per week + advertised office hours plus online material.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J Argomaniz			

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5904 Terrorism and Theories of Collective Action

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (lecture), 10.00 am Tue (tutorial)			

Increasingly, terrorism and political violence is coming to be seen in the wider theoretical context of political collective action, social movement theory and 'contentious politics', a process which has been assisted on the one hand by this field's own growing interest in transnational activism, and recently by growing interest in civil resistance as a neglected area in the study of insurgency within the framework of conflict studies and IR. This module will address such issues as: What does it mean to take a 'political collective action' approach to terrorism? Social movement theory and terrorism; Terrorism and high-risk activism: understanding recruitment and mobilisation; Terrorism and the Collective Action Repertoire; New Social Movements, New Terrorism? Terrorism in the Context of Transnational Activism.	
Programme module type:	Optional for the Terrorism and Political Violence Postgraduate Programme - full time mode.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1.5-hour tutorial per week + advertised office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Ramsay

IR5921 Fundamentals of Terrorist Violence

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	4.00 pm Mon (lecture), 11.00 am - 12.00 Tue (tutorial)			

Motives, Enablers and Implications for State Responses: This module examines how combatants in terrorist groups are able to overcome inhibitions to killing. The nature of these inhibitions is examined, as is the range of circumstances which enables them to be overcome so that lethal violence can be justified, compelling and a source of satisfaction. The module draws not only on terrorism studies but also on scholarship from a wide range of subject areas including war studies, psychology, sociology, theology, anthropology, history and art. The focus is more on individuals' aims, aspirations, and ways of imagining themselves and their actions, rather than organisational and instrumental purposes. Theory will be explored through case studies. Resulting insights are used to adduce principles for state responses to political violence. The module thus builds on the tradition of scholarship at St Andrews that examines how political violence may be effectively countered in ways that are consonant with liberal democracy.	
Programme module type:	Optional for the Terrorism and Political Violence Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture, 1.5-hour tutorial per week + advertised office hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Currie
Module teaching staff:	Various

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

IR5922 Terrorism after 1945

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm Thu (seminar) and 3.00 pm - 4.30 pm (tutorial) Thu			

This module will provide students with an overview of the evolution, characteristics, and decline of terrorist movements and campaigns since 1945 by looking at different forms of terrorism (ethnic, religious, social-revolutionary) as well as the responses that both states and international organisations have developed in order to cope with it. The module will also address state and state-sponsored terrorism and the problems that arise once a state actor is involved in terrorism. Moreover, it will examine why and under what circumstances terrorism and antiterrorism responses have been successful. Finally, students will take part in a simulation of UN antiterrorism negotiations in which they will represent a country, research this country's experience with and stance on terrorism and advance the respective government's key interest regarding a comprehensive UN antiterrorism convention.

Programme module type:	Optional for Terrorism and Political Violence Postgraduate Programme
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar + advertised office hours
Assessment pattern:	Coursework = 100% (including presentation worth 20%)
Module coordinator:	Dr B Blumenau

IR5923 State Responses to Terrorism

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.30 pm Thu			

This module takes a multi-faceted approach to studying state responses to terrorism. It addresses the effectiveness and crucially, the ethical implications of particular kinds of counter-terrorism, as well as the wider impact that responding to terrorism has on conflicts, and the relationship between states, terrorists, and society. Topics range from historical to contemporary debates, from domestic examples to international. Students are afforded the opportunity to delve deeper into case studies, exploring responses to terrorism in detail and gaining an appreciation for the role that counter-terrorism has had in shaping conflicts, for better and worse. Through integrated learning and teaching seminars, students will debate and discuss such issues as the security-liberty nexus, the effect that new technology such as drones has had on counter-terrorism, the value of intelligence, and the central importance of respect for civil liberties in defending society from non-state terrorism.

Programme module type:	Available to students on the MLitt in Terrorism and Political Violence. Limited availability to students on other School of International Relations MLitt pathways.		
Anti-requisite(s):	IR5903	**Required for:**	IR5999
Learning and teaching methods and delivery:	**Weekly contact**: 2.5-hour teaching and learning seminar (x 11 weeks)		
Assessment pattern:	Coursework = 100%		
Module coordinator:	Dr K J McConaghy		

The following modules are optional to some or all of our programmes. They may be taken subject to availability, capacity, and with the agreement of the MLitt coordinator.

School of Management

Taught Programmes

MSc:

Banking and Finance
Finance and Management
Management and Information Technology *(see section 17)*

MLitt:

Human Resource Management
International Business*)*
Management
Marketing

Optional Modules in Management

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Banking and Finance

Programme Requirements

Banking and Finance - MSc
80 credits from Module List: MN5310, MN5320, MN5443 - MN5444 **and** 40 credits from Module List: MN5311, MN5604, MN5607 - MN5608, MN5611 **and** MN5499 (60 credits)

Compulsory modules:

MN5310 Banking and Finance				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module is designed to provide students with an in-depth knowledge and a rigorous background in the mainstream areas of modern banking and finance. To accomplish the objective, students will be introduced to theories, business models and structure of commercial banking and finance. Following this, students will be acquainted to the issues associated with lending and borrowing.				
Programme module type:	Compulsory for Banking and Finance Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 x 2-hour lectures and 1 x 1-hour seminar.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr P Abedifar			

MN5320 Research Methods in Banking and Finance (Econometrics 2)				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as optional module to any programme.			
Planned timetable:	To be arranged.			
This module is designed to further develop econometrical skills of students to implement statistical analysis in the area of banking and finance. To accomplish the objective, students will be introduced to advanced empirical techniques such as models with endogenous regressors, dynamic panel data, event studies and models with limited dependent variable. Moreover, they will learn how to apply their econometrical skills in practice using Stata. Students will acquaint basic programing skills to carry out empirical projects.				
Programme module type:	Compulsory for Banking and Finance Postgraduate programme.			
Pre-requisite(s):	MN5443			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures and 1-hour seminars.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr P Abedifar			

MN5443 Research Methods in Finance (Econometrics 1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
The aim of this module is to provide students with an understanding of issues involved in the design of research projects within a finance and management discipline. This module aims to use recent seminal published work in selected areas of finance and management to examine issues of research design and methodology and, in doing so, aims to help students develop a critical perspective on research development and its contribution to the practice of finance and management. In particular, the module will cover areas such as identifying research areas, writing a literature review, identifying appropriate research techniques as well as the more technical aspects of quantitative research.				
Programme module type:	Compulsory for Banking and Finance and for Finance and Management Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr X Chen			

MN5444 Advanced Corporate Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
The module will focus on empirical and theoretical issues that arise in modern corporate finance. Students will be exposed to key financial issues faced by finance managers of corporations. The module will also add to students' knowledge by introducing them to empirical research on the topics studied. Overall, this module equips students with conceptual and analytical skills necessary to make sound financial decisions.				
Programme module type:	Compulsory for Banking and Finance and for Finance and Management Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr L Nguyen			

MN5499 Individual Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided.				
Programme module type:	Compulsory for Banking and Finance MSc Programme.			
	Either MN5497, MN5498 or MN5499 is compulsory for Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5498			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

Optional modules (choose 2):

MN5311 Responsible Investment

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module provides students with an in- depth knowledge of Responsible Investment, which integrates Environmental, Social and Governance (ESG) issues into investment-decision making. The module explores a wide-range of topics including: the definition and identification of relevant Environmental, Social and Governance (ESG) data; portfolio screening and shareholder advocacy and performance evaluation; and responsible risk management.				
The module also explores advanced topics such as: carbon markets: responsible investment in real estate, hedge funds and private equity; philanthropy & impact investing.				
Programme module type:	Optional for Banking and Finance Postgraduate Programme.			
	Optional for all Postgraduate Programmes in the School of Management.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1-hour seminar			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr K Bouslah			

MN5604 Financial Systems

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

Financial systems around the world are currently undergoing many changes. These changes arise from competition, consolidation, information technology, product and geographic expansion of manufacturing, service and financial services firms, de-regulation and re-regulation. These changes are taking place within a volatile and uncertain economic environment, and have direct implications for the development, growth and stability of financial systems. This module aims to outline the fundamentals of financial systems. A central theme running through the module is the influence of technology and innovation along with the challenges that this poses to regulators.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr D Chronopoulos

MN5607 International Financial Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

From daily financial management to long term strategic decision making, a full understanding of international finance is essential for all business managers. This module begins with the international monetary frameworks and the conduct of monetary policies in major developed economies. An essential feature of international finance is the crucial role of foreign exchange rate when cross-border transactions and capital flows occur. The determination and forecast of exchange rates and their interdependence with interest rates is discussed, together with the international money and capital markets and capital flows. Recent decades saw an explosion of new derivative products to hedge risks and an understanding of basic derivatives such as options and future/forward is required of the modern business manager.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr X Chen

MN5608 Risk Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The last two decades have witnessed a spectacular change and growth in financial markets (equity markets, foreign exchange markets, euromarkets and international bond markets). This has brought a new breed of investors that see the role of managers as enhancing their shareholder value and protecting their wealth from potential risk. One of the challenging tasks of managers in recent years has been to manage the exposure to risks that arises from corporate decisions. The 1980s witnessed a resurgence of mergers, acquisitions and take-overs. This brought about new ways of financing such activities with project evaluation, funding and hedging have to be considered together. The principal aim of this module is to provide an introduction to managing the exposure to risk and to apply relevant theories to realistic financial decision problems. This module will also deal with assessing and measuring non-financial risks and their importance in the decision making processes within the firm.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr D Peralias

MN5611 Alternative Investment

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module provides students with an overview on investment opportunities alternative to the main equity and bond markets. It will critically engage students with the key characteristics and issues concerning the main alternative investment opportunities, these being Commodities, Private Equity, Real Estate and especially Hedge Funds. Furthermore, this module will introduce students to the newer alternative investments which include Investibles (e.g. wine and collectibles), Islamic Investment and Responsible Investment. This module will consider the key challenges of evaluating alterative investment portfolios' performance.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practicals.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Bouslah

Master of Science Finance and Management

Programme Requirements

Finance and Management - MSc
80 credits from Module List: MN5442 - MN5444, MN5612 **and**   40 credits from Module List: MN5311, MN5401, MN4521, MN5501, MN5510 - MN5511, MN5513, MN5515, MN5554, MN5560, MN5604, MN5607-MN5608, MN5611, MN5821 **and**   60 credits from Module List: MN5497 - MN5499

Compulsory modules:

MN5442 Corporate Financial Management					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Availability restrictions:	Not available as an optional module for any programme.				
Planned timetable:	To be arranged.				
Financial decisions are made at all levels of management and thus are at the very heart of all organisations. Managers have broadly three major responsibilities in the financial domain which include investment decisions, financing decisions and managing financial risks. Sound financial decisions can help ensure the survival of organisations in an uncertain global environment. Broadly, this module will deal with the first two tasks. The aim of this module is to provide an introduction to modern theories of financial management and to show how to apply the theory to realistic financial decision problems.					
Programme module type:	Compulsory for Finance and Management Postgraduate Programmes.				
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.				
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%				
Module coordinator:	Dr L Nguyen				

MN5443 Research Methods in Finance (Econometrics 1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

The aim of this module is to provide students with an understanding of issues involved in the design of research projects within a finance and management discipline. This module aims to use recent seminal published work in selected areas of finance and management to examine issues of research design and methodology and, in doing so, aims to help students develop a critical perspective on research development and its contribution to the practice of finance and management. In particular, the module will cover areas such as identifying research areas, writing a literature review, identifying appropriate research techniques as well as the more technical aspects of quantitative research.

Programme module type:	Compulsory for Banking and Finance and for Finance and Management Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr X Chen

MN5444 Advanced Corporate Finance

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

The module will focus on empirical and theoretical issues that arise in modern corporate finance. Students will be exposed to key financial issues faced by finance managers of corporations. The module will also add to students' knowledge by introducing them to empirical research on the topics studied. Overall, this module equips students with conceptual and analytical skills necessary to make sound financial decisions.

Programme module type:	Compulsory for Banking and Finance and for Finance and Management Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr L Nguyen

MN5612 Investments and Portfolio Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

This module provides comprehensive instruction on topics in investment finance. It combines investment markets instruction with portfolio management - e.g. investment securities, financial institutions, risk and return, valuation methods and models, and fundamental portfolio theory. Emphasis will be on project work and applied applications to theoretical concepts. Students will produce assessed work that has real market application for institutional investors, investment managers and investment consultants. The module will prepare students for professional exams such as the Chartered Financial Analyst certification for those who desire employment in investment.

Programme module type:	Compulsory for Finance and Management Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Chronopoulos

One of:

MN5498 Group Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			

This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. They are required to prepare a 15,000 word (approximately) report dissertation detailing justified conclusions and recommendations. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided. Each group will comprise up to 6 students. The group dissertation will comprise 70% of the assessment; the remaining 30% will be awarded for an individual report and log book. The individual report should either critically reflect upon working in a multi-cultural project team or on a specific topic related to the group project in both cases the exact topic for the individual report will require supervisor approval.

Programme module type:	Either MN5497, MN5498 or MN5499 is compulsory for Banking and Finance, Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.
Anti-requisite(s):	MN5497, MN5499
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.
Assessment pattern:	15,000 word group dissertation report = 70%, 3,000 word individual report = 30%
Module coordinator:	Ms J F Brooks
Module teaching staff:	Ms J F Brooks, Supervisory team

MN5499 Individual Dissertation				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided.				
Programme module type:	Compulsory for Banking and Finance MSc Programme.			
	Either MN5497, MN5498 or MN5499 is compulsory for Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5498			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

Optional modules available:

see pdf online called PG Management - optional modules 2017 - 2018.

Master of Letters Human Resource Management

Programme Requirements

Human Resource Management - MLitt
MN5001 (20 credits) **and** MN5480 (20 credits) **and** MN5473 (20 credits) **and** MN5481 (20 credits) **and**   40 credits from Module List: MN5311, MN5401, MN4521, MN5501, MN5510 - MN5511, MN5513, MN5515, MN5554, MN5560, MN5604, MN5607-MN5608, MN5611, MN5821 **and**   60 credits from Module List: MN5497 - MN5499

==For CIPD accreditation, see the specific programme outlined at the end of this document.==

Compulsory modules:

MN5001 Contemporary Global Issues in Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module is aimed at creating a deep and wide appreciation of how various global trends will impact upon economies, organisations and from there, the practice of management. In particular, the way in which ecological, social and economic factors interact to create threats and possibilities for organisations will be addressed. Moreover, the varying ways in which these aspects manifest themselves in different parts of the globe will be elucidated in order to ensure that all students have an appreciation of both how their own and other countries might be affected by various trends. Finally, students will also be supported to make the link between these issues and how they manifest themselves in their chosen area of study.				
Programme module type:	Compulsory for the Human Resource Management, International Business, Marketing and International Business and Strategy (Moscow State) Postgraduate Programmes and for the Management Studies MRes Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 seminar.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr R Woodfield			

MN5480 Managing and Developing People

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Availability restrictions:	Not available as an optional module on any programme.			
Planned timetable:	To be arranged.			

The changing nature of organisations, work and employment places an emphasis on the need for fair and effective employment practices if employee commitment and engagement and a sense of mutuality is to be secured that is to the benefit of both the employer and the employee. Making use of the "HRM Cycle" this module will critically analyse the type of employment policies and practices necessary if such mutual outcomes are to be achieved. Four key areas will form the bedrock for this analysis: employee resourcing; employee reward; employee relations; and, employee development. The inter-relationships between these four policy and practice areas will be explored and the ways in which they collectively are managed to secure continuous learning and development of people associated with the organisation will be investigated and assessed. For individuals, the benefits of effective management and development activities to which they are exposed are said to lie in enhanced employability, human capital and career management. For the organisation, performance management and improvement are often felt to be underpinned by processes that promote the type of continuous individual and organisational learning necessary in times of rapid change in the competitive environment. In assessing the reality of this "mutual gains" approach, students will critically evaluate the context, content, processes, outputs and outcomes of the above approaches to employment management.	

Programme module type:	Compulsory for Human Resource Management Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and practicals.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr A Timming

MN5473 Skills and Challenges for the HR Professional

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

This module advances core knowledge and skills in key functional aspects of HRM. Themes in the module explore ways in which to conceptualise HRM in organisations, and the ways in which context influences the practice of HR in different organisational and occupational settings. Core business and HR-related functions such as organisational performance, organisational structure and culture, work organisation, recruitment and selection will be explored by the use of relevant case study material and practical skill-development exercises. Students will be encouraged to consider their future practice in different settings, be that national, sectoral or organisational.	

Programme module type:	Compulsory for Human Resource Management Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars and practicals.
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr S Chillas
Module teaching staff:	Dr S Chillas, Mr M Dowling, Dr A Baluch

MN5481 Masterclasses in Human Resource Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

The module reviews a range of contemporary and critical issues relating to the practise, problemising and theorising about human resource management (HRM). The place of HRM within discourses about organisational purpose and performance and is well established. A growing literature also challenges us to consider a wider set of narratives concerning the ethical and responsible management of organisations and their people and the role of HRM in delivering against this agenda. The curriculum of the module will address HRM from this multiple-perspective approach by considering a range of relevant topics such as "the black box" of the performance-HRM debate, the power-control nexus in HRM, the reality of employee engagement and employee voice; HRM in not-for-profit organisations, the ethics of simultaneous offshoring and downsising strategies, HRM and the ethical management and control of organisations. Each year, the curriculum would change as relevant to reflect current issues and concerns in the discipline but each year, drawing upon contributions from a number of practitioners, academics and researchers, students will be challenged to engage with and reflect upon the meaning and reality of contemporary issues in HRM.

Programme module type:	Compulsory for Human Resource Management Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars and practicals.
Assessment pattern:	Coursework = 100%
Module coordinator:	Mr M J Dowling
Module teaching staff:	Mr M J Dowling, Guest speakers

One of:

MN5498 Group Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			

This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. They are required to prepare a 15,000 word (approximately) report dissertation detailing justified conclusions and recommendations. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided. Each group will comprise up to 6 students. The group dissertation will comprise 70% of the assessment; the remaining 30% will be awarded for an individual report and log book. The individual report should either critically reflect upon working in a multi-cultural project team or on a specific topic related to the group project in both cases the exact topic for the individual report will require supervisor approval.

Programme module type:	Either MN5497, MN5498 or MN5499 is compulsory for Banking and Finance, Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.
Anti-requisite(s):	MN5497, MN5499
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.
Assessment pattern:	15,000 word group dissertation report = 70%, 3,000 word individual report = 30%
Module coordinator:	Ms J F Brooks
Module teaching staff:	Ms J F Brooks, Supervisory team

MN5499 Individual Dissertation				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided.				
Programme module type:	Compulsory for Banking and Finance MSc Programme.			
	Either MN5497, MN5498 or MN5499 is compulsory for Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5498			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

Recommended modules for CIPD accreditation:

MN5001 Contemporary Global Issues in Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

MN5421 Managing People in Global Markets

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme.			
Planned timetable:	To be arranged.			

The module focuses on the management of human resources in global markets and will help participants understand the problems of managing people in an international/multinational context. One of the most important trends in the development of modern economies is the increased globalisation of business. Notwithstanding its economic and social impact, however, globalisation is having a significant impact on how we manage people, not only in multinational enterprises but in our indigenous companies as, increasingly, we borrow ideas on "best practice" from overseas. Such efforts at globalisation, whilst generally successful in bringing economic success, have been fraught with problems, which are often the consequence of ethnocentric management teams and their attempts to export US-style "best practice" human resource management to other countries. Thus, it is critically important for globalising firms to make sensible and contextually-sensitive decisions in key areas of human resource management, which take into account institutional, cultural and psychological differences between parent company institutions, values and practices, those of host countries and those of third country nationals employed to work in global organisations. These decisions usually concern such areas as how people are organised, recruited, selected, deployed, developed, motivated, compensated and how their performance is managed. They also focus on whether or not global organisations employ uniform human resource practices in their various locations throughout the world. Ultimately, effective international human resource management (IHRM) rests on a thorough understanding of the problems of managing people from different backgrounds and this module attempts to explore such problems in-depth and help students apply their understanding to practical managerial situations.

Programme module type:	Optional for all Postgraduate Programmes in the School, not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr A Timming
Module teaching staff:	Dr A Timming, Mr M J Dowling

MN5473 Skills and Challenges for the HR Professional

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2

MN5480 Managing and Developing People

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1

MN5481 Masterclasses in Human Resource Management

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2

MN5511 Leadership in Organisations

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme.			
Planned timetable:	To be arranged.			

This module will examine how views of leadership have changed since the Industrial Revolution, from mechanistic, behavioural models of behaviour to modern leadership frameworks which facilitate change in ever dynamic national, international and cultural climates. Emphasis will be on how theoretical models relate to real life scenarios, how leaders are selected and how leadership is assessed. Content combines conceptual knowledge, behavioural guidelines and other information demonstrated by examples and case studies, experiential exercises and feedback on skill utilisation and performance. Lectures and seminars will combine a variety of educational approaches, from interactive discussions to action learning, with a focus on students' own individual leadership development.

Programme module type:	Optional for Management Studies MRes Programme, and other Postgraduate Programmes in the School of Management, but not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar, 1 practical class.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr S Romenska

MN5499 Individual Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year

Optional modules available:

see pdf online called PG Management - optional modules 2017 - 2018.

Master of Letters International Business

Programme Requirements

International Business - MSc
80 credits from Module List: MN5001 - MN5002, MN5423, MN5425 **and**   40 credits from Module List: MN5311, MN5401, MN4521, MN5501, MN5510 - MN5511, MN5513, MN5515, MN5554, MN5560, MN5604, MN5607-MN5608, MN5611, MN5821 **and**   60 credits from Module List: MN5497 - MN5499

Compulsory modules:

MN5001 Contemporary Global Issues in Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module is aimed at creating a deep and wide appreciation of how various global trends will impact upon economies, organisations and from there, the practice of management. In particular, the way in which ecological, social and economic factors interact to create threats and possibilities for organisations will be addressed. Moreover, the varying ways in which these aspects manifest themselves in different parts of the globe will be elucidated in order to ensure that all students have an appreciation of both how their own and other countries might be affected by various trends. Finally, students will also be supported to make the link between these issues and how they manifest themselves in their chosen area of study.				
Programme module type:	Compulsory for the Human Resource Management, International Business, Marketing and International Business and Strategy (Moscow State) Postgraduate Programmes and for the Management Studies MRes Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 seminar.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr R Woodfield			

MN5002 Contemporary Conceptual Issues in Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

This module develops students' prior understanding of management and develops a deep understanding of core conceptual challenges in organisations. Using critical case-based exploration and extensive discussion the module explores such basic yet deep questions as: What are organisations? Can organisations be managed, and what do managers actually do? How do we know what we know? Where does innovation come from? What are skills, knowledge and understanding? What is responsible enterprise? Why are organisations structured the way they are? How do personality, power and politics impact on organisational life? As these and similar questions are addressed, students will be encouraged to reflect and draw upon their own experiences of organisational life as issues are analysed, challenged, researched, evaluated and assessed.

Programme module type:	Compulsory for the International Business, and Marketing Postgraduate Programmes and for the Management Studies MRes Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar and 1 practical class.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Summers
Module teaching staff:	Dr J Summers, Team taught

MN5423 Global Business Strategy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

International business strategy is a broad but at the same time synthetic discipline which comprises elements of the international political economy, financial aspects and strategic planning and implementation. This module draws these elements together in the context of the international business environment and seeks to define optimal paths to competitive advantage within this complex and fast-changing business context. The module introduces a wide variety of themes, explanations and interpretations that characterise strategic management. The module will challenge students to consider strategic problems in a rigorous manner and a suitable balance between strategic planning and strategy implementation is maintained.

Programme module type:	Compulsory for International Business and International Business and Strategy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr R Brown

MN5425 Masterclasses in International Business

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module builds on students' prior knowledge of International Business concepts by introducing them to contemporary dialogue and debate in International Business. The module will explore specific questions within one or more broad topics such as: globalisation and globalisation protests; neo-liberalism and free trade; the global dimension of the financial crisis; the fortune at the bottom of the pyramid; 'is the world flat?' The intention is to approach each topic from a range of perspectives, including mainstream and critical understandings. Students will be encouraged to engage with the challenges presented by these issues by means of a range of approaches, including standard lectures, tutorials, and debates.				
Programme module type:	Compulsory for International Business Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr R Brown			
Module teaching staff:	Dr R Brown; Guest speakers			

One of:

MN5498 Group Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. They are required to prepare a 15,000 word (approximately) report dissertation detailing justified conclusions and recommendations. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided. Each group will comprise up to 6 students. The group dissertation will comprise 70% of the assessment; the remaining 30% will be awarded for an individual report and log book. The individual report should either critically reflect upon working in a multi-cultural project team or on a specific topic related to the group project in both cases the exact topic for the individual report will require supervisor approval.				
Programme module type:	Either MN5497, MN5498 or MN5499 is compulsory for Banking and Finance, Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5499			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	15,000 word group dissertation report = 70%, 3,000 word individual report = 30%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

MN5499 Individual Dissertation				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided.				
Programme module type:	Compulsory for Banking and Finance MSc Programme.			
	Either MN5497, MN5498 or MN5499 is compulsory for Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5498			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

Optional modules available:

see pdf online called PG Management - optional modules 2017 - 2018.

Master of Letters Management

Programme Requirements

Management - MLitt
80 credits from Module List: MN5424, MN5461, MN5470 - MN5471 **and**   40 credits from Module List: MN5311, MN5401, MN4521, MN5501, MN5510 - MN5511, MN5513, MN5515, MN5554, MN5560, MN5604, MN5607-MN5608, MN5611, MN5821 **and**   60 credits from Module List: MN5497 - MN5499

Compulsory modules:

MN5424 Corporate Finance and Accounting				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
The module will introduce students to the basic principles and practices of accounting and corporate finance. The first half of the module will concentrate on teaching students financial accounting and reporting via the accounting equation method; this will enable students to become familiar with accounting techniques and develop an understanding of financial statements and methods employed in their creation. The second half of the module will introduce corporate finance concepts such as capital structure, the CAPM, and investment approaisal techniques. The module will employ case studies to highlight to students how these principles are employed within industry; the case studies will be based in an international setting.				
Programme module type:	Compulsory for Management Postgraduate Programme. Optional for Management and Information Technology Postgraduate Programme.			
Anti-requisite(s):	MN5422			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr L Nguyen			
Module teaching staff:	Dr L Nguyen and Ms L Stevenson			

MN5461 Strategic Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

Over the last three decades one of the most significant global trends has been the rapid technical development of information technology and the parallel intensification in the commercial and administrative use of this technology by organisations. In this context this module will develop students' knowledge and understanding of the strategy process and develop an appreciation of organisational responses to the rapidly changing global economy. In addition to this, the module will develop a critical understanding of the challenges of operating in the information age and will also develop awareness of the range of approaches to organisational strategy; its purpose and the process of aligning corporate strategy with operational strategies in the knowledge economy. The module will challenge students to evaluate organisational processes, including marketing and promotion, logistics and supply chain management, in a rigorous manner and develop an understanding as to how organisational resources can be harnessed to respond to the organisational challenges of operating in an age of rapidly and easily accessible information.

Programme module type:	Compulsory for Management Postgraduate Programme.
	Optional for Management and Information Technology Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and a 1-hour seminar.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Mr S Wilson

MN5470 Managing Human Resources

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

This module reviews the key theoretical and practical aspects involved in managing human resources. The module content covers both the strategic and operational requirements necessary to secure, develop, reward and retain employees and to ensure their maximum contribution to organisational performance requirements. Individual, organisational and contextual factors that influence the management of people are also considered and throughout there is an emphasis on the critical, analytical and evaluative study of the subject.

Programme module type:	Compulsory for Management and Human Resource Management Postgraduate Programmes.
	Optional for Management and Information Technology Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr A Baluch
Module teaching staff:	Dr A Baluch, Mr M J Dowling

MN5471 Marketing: Principles and Practice

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

Marketing is a pervasive social phenomenon, influencing our perceptions and behaviours. We are all in daily contact with the marketing activities of firms, governments and a range of other organisation sand we have all observed and experienced aspects of marketing practice throughout our daily lives. Adopting primarily a managerial perspective, this module will offer a critical review of current theory and practice and look at how marketing is evolving in light of changes to the business context. This module will introduce students to the nature and scope of marketing and its role in society. The importance of identifying, understanding and satisfying customers will be highlighted and approaches to segmenting markets and identifying target market swill be reviewed. Marketing activities will be considered within the context of the marketing mix and other managerially-determined variables. The importance of marketing research and the associated processes will be discussed.

Programme module type:	Compulsory for Management Postgraduate Programme.
	Optional for Management and Information Technology Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Mr W Barlow

One of:

MN5498 Group Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			

This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. They are required to prepare a 15,000 word (approximately) report dissertation detailing justified conclusions and recommendations. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided. Each group will comprise up to 6 students. The group dissertation will comprise 70% of the assessment; the remaining 30% will be awarded for an individual report and log book. The individual report should either critically reflect upon working in a multi-cultural project team or on a specific topic related to the group project in both cases the exact topic for the individual report will require supervisor approval.

Programme module type:	Either MN5497, MN5498 or MN5499 is compulsory for Banking and Finance, Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.
Anti-requisite(s):	MN5497, MN5499
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.
Assessment pattern:	15,000 word group dissertation report = 70%, 3,000 word individual report = 30%
Module coordinator:	Ms J F Brooks
Module teaching staff:	Ms J F Brooks, Supervisory team

MN5499 Individual Dissertation				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided.				
Programme module type:	Compulsory for Banking and Finance MSc Programme. Either MN5497, MN5498 or MN5499 is compulsory for Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5498			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

Optional modules available:

see pdf online called PG Management - optional modules 2017 - 2018.

Master of Letters Marketing

Programme Requirements

Marketing - MLitt
80 credits from Module List: MN5001 - MN5002, MN5405 - MN5406 **and**   40 credits from Module List: MN5311, MN5401, MN4521, MN5501, MN5510 - MN5511, MN5513, MN5515, MN5554, MN5560, MN5604, MN5607-MN5608, MN5611, MN5821 **and**   60 credits from Module List: MN5497 - MN5499

Compulsory modules:

MN5001 Contemporary Global Issues in Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module is aimed at creating a deep and wide appreciation of how various global trends will impact upon economies, organisations and from there, the practice of management. In particular, the way in which ecological, social and economic factors interact to create threats and possibilities for organisations will be addressed. Moreover, the varying ways in which these aspects manifest themselves in different parts of the globe will be elucidated in order to ensure that all students have an appreciation of both how their own and other countries might be affected by various trends. Finally, students will also be supported to make the link between these issues and how they manifest themselves in their chosen area of study.				
Programme module type:	Compulsory for the Human Resource Management, International Business, Marketing and International Business and Strategy (Moscow State) Postgraduate Programmes and for the Management Studies MRes Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 seminar.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr R Woodfield			

MN5002 Contemporary Conceptual Issues in Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

This module develops students' prior understanding of management and develops a deep understanding of core conceptual challenges in organisations. Using critical case-based exploration and extensive discussion the module explores such basic yet deep questions as: What are organisations? Can organisations be managed, and what do managers actually do? How do we know what we know? Where does innovation come from? What are skills, knowledge and understanding? What is responsible enterprise? Why are organisations structured the way they are? How do personality, power and politics impact on organisational life? As these and similar questions are addressed, students will be encouraged to reflect and draw upon their own experiences of organisational life as issues are analysed, challenged, researched, evaluated and assessed.

Programme module type:	Compulsory for the International Business, and Marketing Postgraduate Programmes and for the Management Studies MRes Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar and 1 practical class.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Summers
Module teaching staff:	Dr J Summers, Team taught

MN5405 Dialogue and Debate in Marketing (Masterclasses)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			

This module builds on students' prior knowledge of marketing concepts by introducing them to contemporary dialogue and debate in marketing and exploring specific questions within one or more broad topics such as; power, technology, morality, green consumption, globalisation and communication. The intention is to approach each topic from a range of perspectives, including mainstream and critical understandings. Students will be encouraged to engage with the challenges presented by these issues by means of a range of approaches, including standard lectures, and tutorials, debates, simulations and site visits.

Programme module type:	Compulsory for Marketing Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars and practical classes.
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J F Brooks
Module teaching staff:	Ms J F Brooks, Guest speakers

MN5406 Consumer Behaviour and Marketing Research

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module aims to refresh and enhance the theoretical and research skills of participants by introducing them to a range of theory, including psychoanalysis, behaviourism, cognitive learning theory and semiotics and then illustrating these in the context of marketing research. A theory will be introduced in one week and then its implications for marketing research will be illustrated in subsequent weeks. For example psychoanalysis will be illustrated by focusing on the use of depth interviews, focus groups and rorshach tests; behaviourism by observation and cognitive learning theory by experimental design of perceptual measurements and the construction of attitude questionnaires.				
Programme module type:	Compulsory for Marketing Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars and practical classes.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr B Bratanova			

One of:

MN5498 Group Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. They are required to prepare a 15,000 word (approximately) report dissertation detailing justified conclusions and recommendations. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided. Each group will comprise up to 6 students. The group dissertation will comprise 70% of the assessment; the remaining 30% will be awarded for an individual report and log book. The individual report should either critically reflect upon working in a multi-cultural project team or on a specific topic related to the group project in both cases the exact topic for the individual report will require supervisor approval.				
Programme module type:	Either MN5497, MN5498 or MN5499 is compulsory for Banking and Finance, Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5499			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	15,000 word group dissertation report = 70%, 3,000 word individual report = 30%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

MN5499 Individual Dissertation					
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**		Whole Year
Availability restrictions:	Not available as an optional module for any programme.				
Planned timetable:	Workshops to be arranged.				
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided.					
Programme module type:	Compulsory for Banking and Finance MSc Programme.				
	Either MN5497, MN5498 or MN5499 is compulsory for Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.				
Anti-requisite(s):	MN5497, MN5498				
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Ms J F Brooks				
Module teaching staff:	Ms J F Brooks, Supervisory team				

Optional modules available:

see pdf online called PG Management - optional modules 2017 - 2018.

Master of Research Management Studies

Programme Requirements

Finance and Management - MSc
100 credits from Module List: SS5101 - SS5104, MN5001, MN5002 **and**   20 credits from Module List: MN5311, MN5401, MN4521, MN5501, MN5510 - MN5511, MN5513, MN5515, MN5554, MN5560, MN5604, MN5607-MN5608, MN5611, MN5821 **and**   60 credits from Module List: MN5497 - MN5499

Compulsory modules:

SS5101 Being a Social Scientist					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1	
Planned timetable:	3.00 - 5.00 pm Fri				
Through a series of interactive seminars this two-part module explores the fundamental skills required by all social scientists. In part one, the module will focus on how to design and produce a research dissertation. Assessment will be in the form of a critical essay that analyses the research design of a selection of papers. In part two, issues of professional development (e.g. ethics, careers, grant writing) will be addressed. Assessment will be in the form of a class test in which you will review and comment on two research proposals.					
Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development. Compulsory for various MRes Programmes outwith the School. Optional for Research Methods in Psychology (MSc), for Sustainable Development and Environmental Economics (MSc), for Sustainable Development (MSc), for Sustainable Development and Energy (MSc). Optional for various other MRes Programmes				
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr M Kesby				

SS5102 Philosophy and Methodology of the Social Sciences

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Wed			

This seminar-based module will introduce you to the basic theoretical approaches in the social sciences, encourage you to make connections between the methodological and epistemological issues involved in conducting social scientific research, and inspire you to reflect critically your own experience. The module will cover modern philosophy's historical evolution, positivism, feminism, critical theory and post-structuralism among other topics. Assessment will involve a one short review and one longer essay.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development, for Research Methods in Psychology (MSc) and various other MRes Programmes
	Optional for Sustainable Development (MRes), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	TBC (Colleagues from International Relations)

SS5103 Qualitative Methods in Social Research

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr M Kesey and Dr D Williams

SS5104 Quantitative Research in Social Science

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

Planned timetable:	1.00 - 5.00 pm Mon

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.	
Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion). Compulsory for Research Methods in Psychology (MSc) Compulsory for various other MRes Programmes. Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc) Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales

MN5001 Contemporary Global Issues in Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

Availability restrictions:	Not available as an optional module for any programme.
Planned timetable:	To be arranged.

This module is aimed at creating a deep and wide appreciation of how various global trends will impact upon economies, organisations and from there, the practice of management. In particular, the way in which ecological, social and economic factors interact to create threats and possibilities for organisations will be addressed. Moreover, the varying ways in which these aspects manifest themselves in different parts of the globe will be elucidated in order to ensure that all students have an appreciation of both how their own and other countries might be affected by various trends. Finally, students will also be supported to make the link between these issues and how they manifest themselves in their chosen area of study.	
Programme module type:	Compulsory for the Human Resource Management, International Business, Marketing and International Business and Strategy (Moscow State) Postgraduate Programmes and for the Management Studies MRes Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 seminar.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr R Woodfield

MN5002 Contemporary Conceptual Issues in Management				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	To be arranged.			
This module develops students' prior understanding of management and develops a deep understanding of core conceptual challenges in organisations. Using critical case-based exploration and extensive discussion the module explores such basic yet deep questions as: What are organisations? Can organisations be managed, and what do managers actually do? How do we know what we know? Where does innovation come from? What are skills, knowledge and understanding? What is responsible enterprise? Why are organisations structured the way they are? How do personality, power and politics impact on organisational life? As these and similar questions are addressed, students will be encouraged to reflect and draw upon their own experiences of organisational life as issues are analysed, challenged, researched, evaluated and assessed.				
Programme module type:	Compulsory for the International Business, and Marketing Postgraduate Programmes and for the Management Studies MRes Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar and 1 practical class.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr J Summers			
Module teaching staff:	Dr J Summers, Team taught			

One of:

MN5498 Group Dissertation				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. They are required to prepare a 15,000 word (approximately) report dissertation detailing justified conclusions and recommendations. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided. Each group will comprise up to 6 students. The group dissertation will comprise 70% of the assessment; the remaining 30% will be awarded for an individual report and log book. The individual report should either critically reflect upon working in a multi-cultural project team or on a specific topic related to the group project in both cases the exact topic for the individual report will require supervisor approval.				
Programme module type:	Either MN5497, MN5498 or MN5499 is compulsory for Banking and Finance, Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5499			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	15,000 word group dissertation report = 70%, 3,000 word individual report = 30%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

MN5499 Individual Dissertation				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Not available as an optional module for any programme.			
Planned timetable:	Workshops to be arranged.			
This module provides students with the opportunity to undertake an in-depth investigation into issues within the field of business and finance. Training in methodology will be provided to students in semesters 1 and 2 as preparation for the dissertation. Supervision of the dissertation is also provided.				
Programme module type:	Compulsory for Banking and Finance MSc Programme.			
	Either MN5497, MN5498 or MN5499 is compulsory for Finance and Management, International Business, International Business and Strategy, Human Resource Management or Management MLitt or MSc Postgraduate Programmes.			
Anti-requisite(s):	MN5497, MN5498			
Learning and teaching methods and delivery:	**Weekly contact**: 16 x 2-hour lectures/workshops. Students will then be given 6 hours of supervision.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Ms J F Brooks			
Module teaching staff:	Ms J F Brooks, Supervisory team			

Optional modules available:

see pdf online called PG Management - optional modules 2017 - 2018.

Optional modules available:

MN5311 Responsible Investment

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides students with an in- depth knowledge of Responsible Investment, which integrates Environmental, Social and Governance (ESG) issues into investment-decision making. The module explores a wide-range of topics including: the definition and identification of relevant Environmental, Social and Governance (ESG) data; portfolio screening and shareholder advocacy and performance evaluation; and responsible risk management.

The module also explores advanced topics such as: carbon markets: responsible investment in real estate, hedge funds and private equity; philanthropy & impact investing.

Programme module type:	Optional for Banking and Finance Postgraduate Programme. Optional for all Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1-hour seminar
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr K Bouslah

MN5401 International Marketing

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme.			
Planned timetable:	To be arranged.			

This module essentially involves the critical study of International Marketing. Key theories are examined carefully against the backdrop of questions such as: What is an International Marketing Strategy? How is it developed? What role does it fulfil in the organisation? The module will examine the macro and micro factors that influence and affect International Marketing. It is designed to equip students with the necessary skills to make Marketing decisions in a global context.

Programme module type:	Optional for all Postgraduate Programmes in the School of Management, not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr J Fernie

MN5421 Managing People in Global Markets

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme.			
Planned timetable:	To be arranged.			

The module focuses on the management of human resources in global markets and will help participants understand the problems of managing people in an international/multinational context. One of the most important trends in the development of modern economies is the increased globalisation of business. Notwithstanding its economic and social impact, however, globalisation is having a significant impact on how we manage people, not only in multinational enterprises but in our indigenous companies as, increasingly, we borrow ideas on "best practice" from overseas. Such efforts at globalisation, whilst generally successful in bringing economic success, have been fraught with problems, which are often the consequence of ethnocentric management teams and their attempts to export US-style "best practice" human resource management to other countries. Thus, it is critically important for globalising firms to make sensible and contextually-sensitive decisions in key areas of human resource management, which take into account institutional, cultural and psychological differences between parent company institutions, values and practices, those of host countries and those of third country nationals employed to work in global organisations. These decisions usually concern such areas as how people are organised, recruited, selected, deployed, developed, motivated, compensated and how their performance is managed. They also focus on whether or not global organisations employ uniform human resource practices in their various locations throughout the world. Ultimately, effective international human resource management (IHRM) rests on a thorough understanding of the problems of managing people from different backgrounds and this module attempts to explore such problems in-depth and help students apply their understanding to practical managerial situations.

Programme module type:	Optional for all Postgraduate Programmes in the School, not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr A Timming
Module teaching staff:	Dr A Timming, Mr M J Dowling

MN5510 Entrepreneurship, Innovation and Creativity

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme.			
Planned timetable:	To be arranged.			

Entrepreneurship is often taught within the context of new venture creation. This module takes an alternative approach and will consider the entrepreneur opportunity locus, the role of creativity, exploitation of change and source & application of innovation. It will provide insight into the nature and identity of entrepreneurship by critically analysing the way entrepreneurial activity creates economic wealth/social value; and will impart an understanding of individual entrepreneurship, corporate entrepreneurship and social entrepreneurship. This module will draw on case studies from the creative industries such as Syco Entertainment, Delfont Macintosh and Les Miserables; and firms such as Apple, Nokia and Google. It will consider the corporate culture and the organisation of entrepreneurial firms and enable students to consider career paths, and engagement with entrepreneurs.

Programme module type:	Optional for Management Studies MRes Programme, and other Postgraduate Programmes in the School, but not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 2 seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Mr C Lovatt

MN5511 Leadership in Organisations

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme.			
Planned timetable:	To be arranged.			

This module will examine how views of leadership have changed since the Industrial Revolution, from mechanistic, behavioural models of behaviour to modern leadership frameworks which facilitate change in ever dynamic national, international and cultural climates. Emphasis will be on how theoretical models relate to real life scenarios, how leaders are selected and how leadership is assessed. Content combines conceptual knowledge, behavioural guidelines and other information demonstrated by examples and case studies, experiential exercises and feedback on skill utilisation and performance. Lectures and seminars will combine a variety of educational approaches, from interactive discussions to action learning, with a focus on students' own individual leadership development.

Programme module type:	Optional for Management Studies MRes Programme, and other Postgraduate Programmes in the School of Management, but not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar, 1 practical class.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr S Romenska

MN5513 Ethics, Organisations and Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme.			
Planned timetable:	To be arranged.			

This module develops students' understanding of the ethical issues surrounding management and organisations. The module is arranged around five core themes, representing the practical problems that face managers and organisations: How should we understand capitalism? What is the purpose of a corporation? Can managers be moral beings? Can markets be ethical? How should wealth be distributed? We approach these themes from philosophical, sociological, and organisational perspectives, developing students' understanding of the issues through theoretical analysis, case studies and extensive discussion. As these and similar questions are addressed, students will be encouraged to reflect and draw upon their own experiences of organisational life as issues are analysed, challenged, researched, evaluated and assessed.

Programme module type:	Optional for all Postgraduate Programmes in the School, but not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr S Mansell
Module teaching staff:	Dr S Mansell, Dr P Roscoe

MN5515 Entrepreneurship and Business Development

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Successful creation of a new venture requires the conception of a robust, sustaining and growth oriented business model. This module involves the practical conception of such a business model and development of an actionable business plan that, taken together, constitutes a coherent and fully integrated plan for a viable, for-profit, enterprise. Students will collaborate to design a business model and then plan for a start-up business based on that model.

Programme module type:	Optional for all Postgraduate Programmes in the School.
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour lectures (x 11 weeks), 3-hour practical classes (x 7 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Lovatt
Module teaching staff:	Dr C Lovatt

MN5554 Marketing and Society

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme			
Planned timetable:	To be arranged.			

This module examines the effects of marketing on societies. The powerful social and cultural influence of marketing has been widely recognised. Through branding and communication marketing shapes consumption, identity and relationships. Our appearance, ideas and behaviour are influenced by marketing in ways more subtle and pervasive than we might think. What we eat, drink and wear; where we live and how we travel; our work and leisure; even the most intimate details of our lives respond to the powers of marketing. The future of marketing is challenged by the negative connotations of globalisation. Actions by certain firms have caused strong reactions to negative effects on workers, consumers and environments, such that a plethora of anti-corporate protest movements has been mobilised in recent decades.

Programme module type:	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School but not available to the Banking and Finance Postgraduate programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Ms J F Brooks
Module teaching staff:	Ms J F Brooks

MN5560 Creative Marketing Communications

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Availability restrictions:	Not available to the Banking and Finance Postgraduate Programme			
Planned timetable:	To be arranged.			

Advertising is a permeating creative presence in developed economies, and an important, evolving part of organisations' marketing activities and integrated marketing communications programmes. The module aims to develop your understanding of advertising as an element in the integrated marketing communications mix, of how the advertising creative and planning process is practiced and managed, and the range of contemporary issues affecting decision-making in this dynamic environment.

Programme module type:	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School, but not available to the Banking and Finance Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	Mr W Barlow
Module teaching staff:	Mr W Barlow, Dr K Myrseth

MN5604 Financial Systems

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

Financial systems around the world are currently undergoing many changes. These changes arise from competition, consolidation, information technology, product and geographic expansion of manufacturing, service and financial services firms, de-regulation and re-regulation. These changes are taking place within a volatile and uncertain economic environment, and have direct implications for the development, growth and stability of financial systems. This module aims to outline the fundamentals of financial systems. A central theme running through the module is the influence of technology and innovation along with the challenges that this poses to regulators.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr D Chronopoulos

MN5607 International Financial Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

From daily financial management to long term strategic decision making, a full understanding of international finance is essential for all business managers. This module begins with the international monetary frameworks and the conduct of monetary policies in major developed economies. An essential feature of international finance is the crucial role of foreign exchange rate when cross-border transactions and capital flows occur. The determination and forecast of exchange rates and their interdependence with interest rates is discussed, together with the international money and capital markets and capital flows. Recent decades saw an explosion of new derivative products to hedge risks and an understanding of basic derivatives such as options and future/forward is required of the modern business manager.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and seminars.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr X Chen

MN5608 Risk Management

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The last two decades have witnessed a spectacular change and growth in financial markets (equity markets, foreign exchange markets, euromarkets and international bond markets). This has brought a new breed of investors that see the role of managers as enhancing their shareholder value and protecting their wealth from potential risk. One of the challenging tasks of managers in recent years has been to manage the exposure to risks that arises from corporate decisions. The 1980s witnessed a resurgence of mergers, acquisitions and take-overs. This brought about new ways of financing such activities with project evaluation, funding and hedging have to be considered together. The principal aim of this module is to provide an introduction to managing the exposure to risk and to apply relevant theories to realistic financial decision problems. This module will also deal with assessing and measuring non-financial risks and their importance in the decision making processes within the firm.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures and tutorials.
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr D Peralias

MN5611 Alternative Investment

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged.

This module provides students with an overview on investment opportunities alternative to the main equity and bond markets. It will critically engage students with the key characteristics and issues concerning the main alternative investment opportunities, these being Commodities, Private Equity, Real Estate and especially Hedge Funds. Furthermore, this module will introduce students to the newer alternative investments which include Investibles (e.g. wine and collectibles), Islamic Investment and Responsible Investment. This module will consider the key challenges of evaluating alterative investment portfolios' performance.

Programme module type:	Optional for Banking and Finance Postgraduate Programme.
	Optional for Management Studies MRes Programme, and all other Postgraduate Programmes in the School of Management.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practicals.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Bouslah

MN5821 Managing Non-Governmental Organisations

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Planned timetable:	To be arranged.

Non-Governmental Organisations (NGOs) occupy distinctive roles within society, economy, and polity. Situating these organisations within their different historical and international settings, this module goes on to examine the strategic challenges face by NGOs today.

Programme module type:	Optional for Management Studies MRes Programme and all other Postgraduate Programmes in the School of Management, as well as the Sustainable Development MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lectures
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Burt
Module teaching staff:	Dr E Burt

School of Mathematics & Statistics

Taught Programmes

Postgraduate Diploma:

Applied Statistics and Datamining

MSc:

Applied Statistics and Datamining
Mathematics
Statistics

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Applied Statistics and Datamining

Programme Requirements

Applied Statistics and Datamining - MSc
105 credits from Module List: MT4113, MT5753, MT5756 - MT5758, ID5059 **and** 15 credits from Module List: MT3000 - MT4598, MT4600 - MT5998, IS5102 **and** MT5099 (60 credits)

Modules

The Pre-requisites for each module may be replaced by equivalent material from other institutions.

Compulsory modules:

MT4113 Computing in Statistics				
SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	12.00 noon Mon (odd weeks) and Wed, 12.00 noon –2.00 pm Fri			
The aim of this module is to teach computer programming skills, including principles of good programming practice, with an emphasis on statistical computing. Practical work focusses on the widely-used statistical language and environment R. Practical skills are developed through a series of computing exercises that include (1) modular programming; (2) manipulating data; (3) simulating data with specific statistical properties, (4) investigating behaviour of statistical procedures under failure of statistical assumptions.				
Programme module type:	Compulsory for Applied Statistics and Datamining and Data-Intensive Analysis MSc programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour lectures (x 10 weeks), 2-hour pracitcal classes (x 10 weeks)			
Assessment pattern:	2-hour Written Examination = 40%, Coursework = 60%			
Module coordinator:	Dr L J Thomas			
Module teaching staff:	Dr L J Thomas, Dr E Rexstad			

MT5753 Statistical Modelling

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.00 pm Mon - Thu and 2.00 pm - 3.00 pm Fri (Weeks 5 - 9)			

This applied statistics module covers the main aspects of linear models (LMs) and generalized linear models (GLMs). In each case the course describes model specification, various options for model selection, model assessment and tools for diagnosing model faults. Common modelling issues such as collinearity and residual correlation are also addressed, and as a consequence of the latter the Generalized Least squares (GLS) method is described. The GLM component has emphasis on models for count data and presence/absence data while GLMs for multinomial (sometimes called choice-based models) are also covered for nominal and ordinal response outcomes. The largest part of the course material is taught inside an environmental impact assessment case study with reality-based research objectives. Political and medical examples are used to illustrate the multinomial models.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc programme. Optional for Statistics MSc Programme.		
Anti-requisite(s):	MT4607	**Required for:**	MT5757
Learning and teaching methods and delivery:	**Weekly contact**: 6 hours lectures, 1.5 hours tutorials and 6 hours practicals (x 5 weeks).		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Dr L A Scott-Hayward		

MT5756 Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm			

This module provides coverage of essential statistical concepts, data manipulation and analysis methods, and software skills in commercial analysis packages. Specifically: the different types of data and their numerical/graphical treatment; data entry/import/export, basic probability theory and concepts of inference; fundamental statistical concepts with particular emphasis on sampling issues; basic statistical models and tests; introductory computer-intensive inference. The widespread commercial statistical packages SAS, SPSS are introduced and utilised with Excel for most analyses. The statistical programming language R is also given brief attention. This module is a short intensive course and is a core, preliminary, requirement for the MSc in Applied Statistics and Datamining. It covers material essential for study of the more advanced statistical methods encountered in subsequent modules.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. An exemption may be granted to an appropriately qualified entrant. Compulsory for Data-Intensive Analysis MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practicals for 4 weeks.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr V Popov

MT5757 Advanced Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

This module covers modern modelling methods for situations where the data fails to meet the assumptions of common statistical models and simple remedies do not suffice. This represents a lot of real world data. Methods covered include: nonlinear models; basic splines and Generalised Additive Models; LASSO and the Elastic Net; models for non-independent errors and random effects. Pragmatic data imputation is covered with associated issues. Computer intensive inference is considered throughout. Practical applications build sought-after skills in R and the commercial packages SAS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme.
	Compulsory for Data-Intensive Analysis MSc Programme.
	Optional for Statistics MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 8 tutorials over the semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr L Scott-Hayward

MT5758 Applied Multivariate Analysis

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (even weeks), Tue and Thu			

This module provides introductory and advanced training in the applied analysis of multivariate data. The module emphasis is upon practical analysis of data and the extraction of answers from real-life data. Basic theory is given covering matrix algebra, metrics and general measures of similarity. The most common and fundamental methods including dimension reduction and classification are covered e.g. Multivariate Analysis of Variance, Principal Components Analysis, multidimensional scaling, Factor Analysis, clustering methods. The practical component of the module focuses on analysis of real data using the commercial software tools Excel, SAS and SPSS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme.		
	Optional for Statistics MSc Programme.		
Pre-requisite(s):	Acceptance on taught postgraduate programme.	**Anti-requisite(s):**	MT4609
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), and 4 tutorials and 4 project group meetings over the semester.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Prof L Thomas		
Module teaching staff:	Prof L Thomas, Dr V M Popov		

ID5059 Knowledge Discovery and Datamining

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

Contemporary data collection can be automated and on a massive scale e.g. credit card transaction databases. Large databases potentially carry a wealth of important information that could inform business strategy, identify criminal activities, characterise network faults etc. These large scale problems may preclude the standard carefully constructed statistical models, necessitating highly automated approaches. This module covers many of the methods found under the banner of "Datamining", building from a theoretical perspective but ultimately teaching practical application. Topics covered include: historical/philosophical perspectives, model selection algorithms and optimality measures, tree methods, bagging and boosting, neural nets, and classification in general. Practical applications build sought-after skills in programming (typically R, SAS or python).

Programme module type:	Compulsory for Applied Statistics and Datamining Postgraduate Programme. Compulsory for Data-Intensive Analysis MSc Programme. Optional for all Postgraduate Programmes.
Anti-requisite(s):	MT5759
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, seminars, tutorials and practical classes.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr C R Donovan

MT5099 Dissertation for MSc Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the progress of the dissertation. The completed dissertation of not more than 15,000 words must be submitted by the 21st of August.

Programme module type:	Compulsory for MSc Programmes in Mathematics and in Statistics. Optional for Data-Intensive Analysis MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision
Assessment pattern:	Dissertation = 100%
Module coordinator:	Dr J D Mitchell

Optional modules:

MT5098 Group Dissertation for MSc Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Availability restrictions:	Available only to students on the MSc in Applied Statistics and Datamining			
Planned timetable:	To be arranged.			
This module is a group-based dissertation which is supervised by members of the teaching staff who will advise on the choice of subject and provide guidance and structure throughout the progress of the dissertation. This module results in an individually written and submitted dissertation of not more than 15,000 words. This dissertation may also include an agreed collaboratively written group report, but this report will constitute no more than 30% of the module grade. Each student is assessed taking into account both individual and group submissions.				
Programme module type:	Optional for MSc in Applied Statistics and Datamining			
Anti-requisite(s):	MT5099			
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour supervision (x 13 weeks)			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Dr J Mitchell			

MT5613 Advanced Topics in the History of Mathematics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon (odd), Wed & Fri.			
The overall aim of the module is to give students an insight into the historical development of mathematics and an opportunity to research into one particular topic in some depth. This module is taught in parallel with MT4501.				
Programme module type:	Optional for all Postgraduate Taught Programmes within the School of Mathematics & Statistics			
Anti-requisite(s):	MT4501			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 tutorial.			
Assessment pattern:	2 Class Tests = 34%, Coursework: Project = 66%			
Module coordinator:	Dr I J Falconer			

MT5701 Advanced Statistical Inference

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am Mon (odd weeks), Wed and Fri			
This module consists of MT4606 with the addition of directed reading on more advanced aspects of the subject and a requirement to write a review essay on an aspect of the subject. The syllabus includes: comparison of point estimators; the Rao-Blackwell Theorem; distribution theory; Fisher information and the Cramer-Rao lower bound; maximum likelihood estimation; hypothesis-testing; confidence sets.				
Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics			
Anti-requisite(s):	MT4606			
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 0.5 tutorial (weeks 2 - 11).			
Assessment pattern:	2-hour Written Examination = 75%, Coursework: Project = 25%			
Module coordinator:	Prof A G Lynch			

MT5753 Statistical Modelling

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.00 pm Mon - Thu and 2.00 pm - 3.00 pm Fri (Weeks 5 - 9)			

This applied statistics module covers the main aspects of linear models (LMs) and generalized linear models (GLMs). In each case the course describes model specification, various options for model selection, model assessment and tools for diagnosing model faults. Common modelling issues such as collinearity and residual correlation are also addressed, and as a consequence of the latter the Generalized Least squares (GLS) method is described. The GLM component has emphasis on models for count data and presence/absence data while GLMs for multinomial (sometimes called choice-based models) are also covered for nominal and ordinal response outcomes. The largest part of the course material is taught inside an environmental impact assessment case study with reality-based research objectives. Political and medical examples are used to illustrate the multinomial models.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc programme. Optional for Statistics MSc Programme.		
Anti-requisite(s):	MT4607	**Required for:**	MT5757
Learning and teaching methods and delivery:	**Weekly contact**: 6 hours lectures, 1.5 hours tutorials and 6 hours practicals (x 5 weeks).		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Dr L A Scott-Hayward		

MT5756 Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm			

This module provides coverage of essential statistical concepts, data manipulation and analysis methods, and software skills in commercial analysis packages. Specifically: the different types of data and their numerical/graphical treatment; data entry/import/export, basic probability theory and concepts of inference; fundamental statistical concepts with particular emphasis on sampling issues; basic statistical models and tests; introductory computer-intensive inference. The widespread commercial statistical packages SAS, SPSS are introduced and utilised with Excel for most analyses. The statistical programming language R is also given brief attention. This module is a short intensive course and is a core, preliminary, requirement for the MSc in Applied Statistics and Datamining. It covers material essential for study of the more advanced statistical methods encountered in subsequent modules.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. An exemption may be granted to an appropriately qualified entrant. Compulsory for Data-Intensive Analysis MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practicals for 4 weeks.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr V Popov

MT5757 Advanced Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

This module covers modern modelling methods for situations where the data fails to meet the assumptions of common statistical models and simple remedies do not suffice. This represents a lot of real world data. Methods covered include: nonlinear models; basic splines and Generalised Additive Models; LASSO and the Elastic Net; models for non-independent errors and random effects. Pragmatic data imputation is covered with associated issues. Computer intensive inference is considered throughout. Practical applications build sought-after skills in R and the commercial packages SAS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme.
	Compulsory for Data-Intensive Analysis MSc Programme.
	Optional for Statistics MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 8 tutorials over the semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr H Worthington

MT5758 Applied Multivariate Analysis

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (even weeks), Tue and Thu			

This module provides introductory and advanced training in the applied analysis of multivariate data. The module emphasis is upon practical analysis of data and the extraction of answers from real-life data. Basic theory is given covering matrix algebra, metrics and general measures of similarity. The most common and fundamental methods including dimension reduction and classification are covered e.g. Multivariate Analysis of Variance, Principal Components Analysis, multidimensional scaling, Factor Analysis, clustering methods. The practical component of the module focuses on analysis of real data using the commercial software tools Excel, SAS and SPSS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme.		
	Optional for Statistics MSc Programme.		
Pre-requisite(s):	Acceptance on taught postgraduate programme.	**Anti-requisite(s):**	MT4609
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), and 4 tutorials and 4 project group meetings over the semester.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Prof L Thomas		
Module teaching staff:	Prof L Thomas, Dr V M Popov		

MT5802 Advanced Analytical Techniques

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (odd weeks), Wed and Fri			
This module introduces students to some further important applied analytic techniques such as Variational Calculus, Integral equations and transforms, and the theory of Steepest Descent.				
Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).			
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%			
Module coordinator:	Dr C V Tran			
Module teaching staff:	Dr C V Tran			

MT5806 Advanced Computational Techniques

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			
This module introduces students to some of the ideas, techniques and constraints that underpin modern approaches to the numerical modeling of physical processes that may be described by partial differential equations. Students will gain expertise in implementing standard methods and will submit a short dissertation together with a portfolio of computational work.				
Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (weeks 1 - 10) and a typical average of 0.5 hours of project supervisions (weeks 2 - 11)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S J Brooks			

MT5809 Advanced Fluid Dynamics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			
This module will examine current research in fluid dynamics, with a particular focus on meteorology and oceanography. The large-scale atmosphere and oceans behave quite unlike a 'classical' fluid owing to the presence of stable density stratification and rotation. As a result, the fluid motion is dominated by slow, 'vortical' or eddying motions (like cyclones) which generally spin slower than the Earth. Superimposed on this slow motion are relatively fast wave-like motions analogous to surface waves on a pond. These lectures describe the mathematical basis of these fundamentally different types of motion, and furthermore illustrate the increasingly important role of computer modelling in this research.				
Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).			
Assessment pattern:	2.5-hour Written Examination = 100%			
Module coordinator:	Dr J Reinaud			

MT5810 Advanced Solar Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

The object of this module is to describe the magnetohydrodynamic processes at work in the Sun, using modern techniques of applied mathematics, and to discuss the latest theories in relation to aspects of current research within the School.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Prof C E Parnell

MT5821 Advanced Combinatorics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Availability subject to confirmation			
Planned timetable:	12.00 noon Mon (odd weeks), Wed and Fri			

Combinatorics underlies and interacts many topics in discrete mathematics including group theory, statistical design, and statistical mechanics, as well as being a lively subject in its own right. The module will give students a good grounding in the techniques and will engage students with research-level problems. It is designed to make a wide area of combinatorics available to students.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5-hour lectures (weeks 1 - 10) and 1-hour tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Prof P J Cameron

MT5823 Semigroups

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am Mon (odd weeks), Wed and Fri			

The general aim of this module is to introduce students to semigroup theory, which is the study of sets with one associative binary operation defined on them. In the process, the common aims and concerns of abstract algebra will be emphasised and illustrated by drawing comparisons between semigroups, groups and rings.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), 1 tutorial and 1 examples class (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr J D Mitchell

MT5824 Topics in Groups

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon (odd weeks), Wed and Fri			

The overall aim of this module is to build on the foundations established in MT4003/MT4603, and take the students further into this important and beautiful branch of mathematics. More specifically, through a selection of topics, some of which will be of current research interest in St Andrews, it will introduce students to advanced techniques of handling groups and classifying them.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), 1 tutorial and 1 examples class (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Dr C P Bleak

MT5825 Measure and Probability Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

This module introduces some of the powerful techniques and ideas of modern mathematical analysis and mathematical probability theory that are important both in analysis in its own right and in its many applications in mathematics and science. The module will include topics such as: measure theory, the mathematical foundations for probability theory, law of large numbers. Mathematical analysis and the use of probabilistic methods in analysis is one of the active research areas within the School, and the choice of topics will reflect current activity.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof L Olsen

MT5827 Lie Algebras

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

The aim of this module is to classify the semi-simple Lie algebras over an algebraically closed field. Lie algebra has important applications to theoretical physics and is used in the classification of finite simple groups.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Dr A Detinko

MT5831 Advanced Bayesian Inference

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon (even weeks), Tue and Thu			

This module consists of MT4531 with an additional project which will give consideration to some more advanced aspects of the theory or to the application of Bayesian techniques. This may involve either directed reading or the use of the computer for simulation or data-based analyses. The syllabus includes Bayes' theorem, inference for Normal samples; univariate Normal linear regression; principles of Bayesian computational, Markov chain Monte Carlo - theory and applications.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Anti-requisite(s):	MT4531
Learning and teaching methods and delivery:	**Weekly contact**: 24 lectures and 7 practical classes over semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr M Papathomas

MT5852 Mathematical Biology 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am Mon (odd weeks), Wed and Fri			

This module will explore real world applications of mathematics to biological and medical problems e.g. cell movement, pattern formation in animal coat markings, spread of diseases (AIDS, measles). The mathematical techniques used in the modelling will be nonlinear partial differential equations. The module will be useful to students who wish to specialise in Applied Mathematics in their degree programme.

Programme module type:	Optional for all MSc postgraduate programmes in the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 90%, Coursework (Class Test) = 10%
Module coordinator:	Dr T Lorenzi

MT5990 Independent Study Module

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module provides the opportunity for a student to study an Advanced topic as a reading course under the supervision of a member of staff. The topic will be disjoint from those available in other modules.

Programme module type:	Optional for all Postgraduate programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: Typically 1 hour project supervisions.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A L Wilmot-Smith

MT5991 Professional Skills for Mathematical Scientists				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module encompasses a range of skills, both generic and topic specific, together with taught components aimed at providing an appreciation of both breadth and depth of research areas in Pure or Applied Mathematics. The precise programme of study, together with the identification of the relevant software expertise required, will be determined in consultation with the student's supervisor.

Programme module type:	Optional for all Postgraduate programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: Varies. Typically 1 project supervision per week over whole year.
Assessment pattern:	Coursework = 100%

For Mathematics and Statistics modules in the range MT3000 - MT4598 or MT4600 - MT5998.

For the available modules see: 2017/8 Honours Mathematics & Statistics

Master of Science Mathematics

Programme Requirements

Mathematics - MSc
90 credits from List: MT5611, MT5751, MT5802, MT5806, MT5809-MT5810, MT5812, MT5821, MT5824-MT5825, MT5830-MT5831, MT5836, MT5852, MT5990-MT5991 **and** 30 credits from Module List: MT3000 - MT4598, MT4600 - MT5998 **and** MT5099 (60 credits)

Modules

The Pre-requisites for each module may be replaced by equivalent material from other institutions.

Compulsory module - Whole Year:

MT5099 Dissertation for MSc Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the progress of the dissertation. The completed dissertation of not more than 15,000 words must be submitted by the 21st of August.				
Programme module type:	Compulsory for MSc Programmes in Mathematics and in Statistics. Optional for Data-Intensive Analysis MSc Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Dr J D Mitchell			

90 credits from optional modules:

MT5802 Advanced Analytical Techniques

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (odd weeks), Wed and Fri			
This module introduces students to some further important applied analytic techniques such as Variational Calculus, Integral equations and transforms, and the theory of Steepest Descent.				
Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).			
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%			
Module coordinator:	Dr C V Tran			

MT5806 Advanced Computational Techniques

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			
This module introduces students to some of the ideas, techniques and constraints that underpin modern approaches to the numerical modeling of physical processes that may be described by partial differential equations. Students will gain expertise in implementing standard methods and will submit a short dissertation together with a portfolio of computational work.				
Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (weeks 1 - 10) and a typical average of 0.5 hours of project supervisions (weeks 2 - 11)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S J Brooks			

MT5809 Advanced Fluid Dynamics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			
This module will examine current research in fluid dynamics, with a particular focus on meteorology and oceanography. The large-scale atmosphere and oceans behave quite unlike a 'classical' fluid owing to the presence of stable density stratification and rotation. As a result, the fluid motion is dominated by slow, 'vortical' or eddying motions (like cyclones) which generally spin slower than the Earth. Superimposed on this slow motion are relatively fast wave-like motions analogous to surface waves on a pond. These lectures describe the mathematical basis of these fundamentally different types of motion, and furthermore illustrate the increasingly important role of computer modelling in this research.				
Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).			
Assessment pattern:	2.5-hour Written Examination = 100%			
Module coordinator:	Dr J Reinaud			

MT5810 Advanced Solar Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

The object of this module is to describe the magnetohydrodynamic processes at work in the Sun, using modern techniques of applied mathematics, and to discuss the latest theories in relation to aspects of current research within the School.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Prof C E Parnell

MT5821 Advanced Combinatorics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Availability subject to confirmation			
Planned timetable:	12.00 noon Mon (odd weeks), Wed and Fri			

Combinatorics underlies and interacts many topics in discrete mathematics including group theory, statistical design, and statistical mechanics, as well as being a lively subject in its own right. The module will give students a good grounding in the techniques and will engage students with research-level problems. It is designed to make a wide area of combinatorics available to students.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5-hour lectures (weeks 1 - 10) and 1-hour tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Prof P J Cameron

MT5824 Topics in Groups

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon (odd weeks), Wed and Fri			

The overall aim of this module is to build on the foundations established in MT4003/MT4603, and take the students further into this important and beautiful branch of mathematics. More specifically, through a selection of topics, some of which will be of current research interest in St Andrews, it will introduce students to advanced techniques of handling groups and classifying them.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), 1 tutorial and 1 examples class (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Dr C P Bleak

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MT5825 Measure and Probability Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

This module introduces some of the powerful techniques and ideas of modern mathematical analysis and mathematical probability theory that are important both in analysis in its own right and in its many applications in mathematics and science. The module will include topics such as: measure theory, the mathematical foundations for probability theory, law of large numbers. Mathematical analysis and the use of probabilistic methods in analysis is one of the active research areas within the School, and the choice of topics will reflect current activity.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof L Olsen

MT5831 Advanced Bayesian Inference

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon (even weeks), Tue and Thu			

This module consists of MT4531 with an additional project which will give consideration to some more advanced aspects of the theory or to the application of Bayesian techniques. This may involve either directed reading or the use of the computer for simulation or data-based analyses. The syllabus includes Bayes' theorem, inference for Normal samples; univariate Normal linear regression; principles of Bayesian computational, Markov chain Monte Carlo - theory and applications.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Anti-requisite(s):	MT4531
Learning and teaching methods and delivery:	**Weekly contact**: 24 lectures and 7 practical classes over semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr M Papathomas

MT5852 Mathematical Biology 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am Mon (odd weeks), Wed and Fri			

This module will explore real world applications of mathematics to biological and medical problems e.g. cell movement, pattern formation in animal coat markings, spread of diseases (AIDS, measles). The mathematical techniques used in the modelling will be nonlinear partial differential equations. The module will be useful to students who wish to specialise in Applied Mathematics in their degree programme.

Programme module type:	Optional for all MSc postgraduate programmes in the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 90%, Coursework (Class Test) = 10%
Module coordinator:	Dr T Lorenzi

MT5990 Independent Study Module

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			

This module provides the opportunity for a student to study an Advanced topic as a reading course under the supervision of a member of staff. The topic will be disjoint from those available in other modules.

Programme module type:	Optional for all Postgraduate programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: Typically 1 hour project supervisions.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A L Wilmot-Smith

MT5991 Professional Skills for Mathematical Scientists

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module encompasses a range of skills, both generic and topic specific, together with taught components aimed at providing an appreciation of both breadth and depth of research areas in Pure or Applied Mathematics. The precise programme of study, together with the identification of the relevant software expertise required, will be determined in consultation with the student's supervisor.

Programme module type:	Optional for all Postgraduate programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: Varies. Typically 1 project supervision per week over whole year.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J D Mitchell

30 credits from modules listed above or the following:

MT5613 Advanced Topics in the History of Mathematics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon (odd), Wed & Fri.			

The overall aim of the module is to give students an insight into the historical development of mathematics and an opportunity to research into one particular topic in some depth. This module is taught in parallel with MT4501.

Programme module type:	Optional for all Postgraduate Taught Programmes within the School of Mathematics & Statistics
Anti-requisite(s):	MT4501
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 tutorial.
Assessment pattern:	2 Class Tests = 34%, Coursework: Project = 66%
Module coordinator:	Dr I J Falconer

MT5701 Advanced Statistical Inference

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am Mon (odd weeks), Wed and Fri			

This module consists of MT4606 with the addition of directed reading on more advanced aspects of the subject and a requirement to write a review essay on an aspect of the subject. The syllabus includes: comparison of point estimators; the Rao-Blackwell Theorem; distribution theory; Fisher information and the Cramer-Rao lower bound; maximum likelihood estimation; hypothesis-testing; confidence sets.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics
Anti-requisite(s):	MT4606
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 0.5 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework: Project = 25%
Module coordinator:	Prof A G Lynch

MT5753 Statistical Modelling

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.00 pm Mon - Thu and 2.00 pm - 3.00 pm Fri (Weeks 5 - 9)			

This applied statistics module covers the main aspects of linear models (LMs) and generalized linear models (GLMs). In each case the course describes model specification, various options for model selection, model assessment and tools for diagnosing model faults. Common modelling issues such as collinearity and residual correlation are also addressed, and as a consequence of the latter the Generalized Least squares (GLS) method is described. The GLM component has emphasis on models for count data and presence/absence data while GLMs for multinomial (sometimes called choice-based models) are also covered for nominal and ordinal response outcomes. The largest part of the course material is taught inside an environmental impact assessment case study with reality-based research objectives. Political and medical examples are used to illustrate the multinomial models.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc programme. Optional for Statistics MSc Programme.		
Anti-requisite(s):	MT4607	**Required for:**	MT5757
Learning and teaching methods and delivery:	**Weekly contact**: 6 hours lectures, 1.5 hours tutorials and 6 hours practicals (x 5 weeks).		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Dr L A Scott-Hayward		

MT5756 Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm			

This module provides coverage of essential statistical concepts, data manipulation and analysis methods, and software skills in commercial analysis packages. Specifically: the different types of data and their numerical/graphical treatment; data entry/import/export, basic probability theory and concepts of inference; fundamental statistical concepts with particular emphasis on sampling issues; basic statistical models and tests; introductory computer-intensive inference. The widespread commercial statistical packages SAS, SPSS are introduced and utilised with Excel for most analyses. The statistical programming language R is also given brief attention. This module is a short intensive course and is a core, preliminary, requirement for the MSc in Applied Statistics and Datamining. It covers material essential for study of the more advanced statistical methods encountered in subsequent modules.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. An exemption may be granted to an appropriately qualified entrant. Compulsory for Data-Intensive Analysis MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practicals for 4 weeks.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr V Popov

MT5757 Advanced Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

This module covers modern modelling methods for situations where the data fails to meet the assumptions of common statistical models and simple remedies do not suffice. This represents a lot of real world data. Methods covered include: nonlinear models; basic splines and Generalised Additive Models; LASSO and the Elastic Net; models for non-independent errors and random effects. Pragmatic data imputation is covered with associated issues. Computer intensive inference is considered throughout. Practical applications build sought-after skills in R and the commercial packages SAS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc Programme. Optional for Statistics MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 8 tutorials over the semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr H Worthington

MT5758 Applied Multivariate Analysis

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (even weeks), Tue and Thu			

This module provides introductory and advanced training in the applied analysis of multivariate data. The module emphasis is upon practical analysis of data and the extraction of answers from real-life data. Basic theory is given covering matrix algebra, metrics and general measures of similarity. The most common and fundamental methods including dimension reduction and classification are covered e.g. Multivariate Analysis of Variance, Principal Components Analysis, multidimensional scaling, Factor Analysis, clustering methods. The practical component of the module focuses on analysis of real data using the commercial software tools Excel, SAS and SPSS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Optional for Statistics MSc Programme.		
Pre-requisite(s):	Acceptance on taught postgraduate programme.	Anti-requisite(s):	MT4609
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), and 4 tutorials and 4 project group meetings over the semester.		
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%		
Module coordinator:	Prof L Thomas		
Module teaching staff:	Prof L Thomas, Dr V M Popov		

MT5823 Semigroups

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am Mon (odd weeks), Wed and Fri			

The general aim of this module is to introduce students to semigroup theory, which is the study of sets with one associative binary operation defined on them. In the process, the common aims and concerns of abstract algebra will be emphasised and illustrated by drawing comparisons between semigroups, groups and rings.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), 1 tutorial and 1 examples class (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr J D Mitchell

MT5827 Lie Algebras

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

The aim of this module is to classify the semi-simple Lie algebras over an algebraically closed field. Lie algebra has important applications to theoretical physics and is used in the classification of finite simple groups.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Dr A Detinko

For further Mathematics and Statistics modules in the range MT3000 - MT4598 or MT4600 - MT5998 see: 2017/8 Honours Mathematics & Statistics

Master of Science Statistics

Programme Requirements

Statistics - MSc
90 credits from List: MT5611, MT5751, MT5753, MT5757-MT5758, MT5802, MT5806, MT5809-MT5810, MT5812, MT5821, MT5824, MT5830-MT5831, MT5836, MT5852. **and**   30 credits from Module List: MT3000 - MT4598, MT4600 - MT5998 **and**   MT5099 (60 credits)

Modules

The Pre-requisites for each module may be replaced by equivalent material from other institutions.

Compulsory module - Whole Year:

MT5099 Dissertation for MSc Programme/s					
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year	
Planned timetable:	At times to be arranged with the supervisor.				
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the progress of the dissertation. The completed dissertation of not more than 15,000 words must be submitted by the 21st of August.					
Programme module type:	Compulsory for MSc Programmes in Mathematics and in Statistics. Optional for Data-Intensive Analysis MSc Programme.				
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision				
Assessment pattern:	Dissertation = 100%				
Module coordinator:	Dr J D Mitchell				

90 credits from optional modules:

MT5753 Statistical Modelling

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.00 pm Mon - Thu and 2.00 pm - 3.00 pm Fri (Weeks 5 - 9)			

This applied statistics module covers the main aspects of linear models (LMs) and generalized linear models (GLMs). In each case the course describes model specification, various options for model selection, model assessment and tools for diagnosing model faults. Common modelling issues such as collinearity and residual correlation are also addressed, and as a consequence of the latter the Generalized Least squares (GLS) method is described. The GLM component has emphasis on models for count data and presence/absence data while GLMs for multinomial (sometimes called choice-based models) are also covered for nominal and ordinal response outcomes. The largest part of the course material is taught inside an environmental impact assessment case study with reality-based research objectives. Political and medical examples are used to illustrate the multinomial models.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc programme. Optional for Statistics MSc Programme.			
Anti-requisite(s):	MT4607		**Required for:**	MT5757
Learning and teaching methods and delivery:	**Weekly contact**: 6 hours lectures, 1.5 hours tutorials and 6 hours practicals (x 5 weeks).			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Dr L A Scott-Hayward			

MT5757 Advanced Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

This module covers modern modelling methods for situations where the data fails to meet the assumptions of common statistical models and simple remedies do not suffice. This represents a lot of real world data. Methods covered include: nonlinear models; basic splines and Generalised Additive Models; LASSO and the Elastic Net; models for non-independent errors and random effects. Pragmatic data imputation is covered with associated issues. Computer intensive inference is considered throughout. Practical applications build sought-after skills in R and the commercial packages SAS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Compulsory for Data-Intensive Analysis MSc Programme. Optional for Statistics MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 8 tutorials over the semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr L Scott-Hayward

MT5758 Applied Multivariate Analysis

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am Mon (even weeks), Tue and Thu			

This module provides introductory and advanced training in the applied analysis of multivariate data. The module emphasis is upon practical analysis of data and the extraction of answers from real-life data. Basic theory is given covering matrix algebra, metrics and general measures of similarity. The most common and fundamental methods including dimension reduction and classification are covered e.g. Multivariate Analysis of Variance, Principal Components Analysis, multidimensional scaling, Factor Analysis, clustering methods. The practical component of the module focuses on analysis of real data using the commercial software tools Excel, SAS and SPSS.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. Optional for Statistics MSc Programme.			
Pre-requisite(s):	Acceptance on taught postgraduate programme.	**Anti-requisite(s):**	MT4609	
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), and 4 tutorials and 4 project group meetings over the semester.			
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%			
Module coordinator:	Prof L Thomas			
Module teaching staff:	Prof L Thomas, Dr V M Popov			

MT5802 Advanced Analytical Techniques

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (odd weeks), Wed and Fri			

This module introduces students to some further important applied analytic techniques such as Variational Calculus, Integral equations and transforms, and the theory of Steepest Descent.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr C V Tran

MT5806 Advanced Computational Techniques

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

This module introduces students to some of the ideas, techniques and constraints that underpin modern approaches to the numerical modeling of physical processes that may be described by partial differential equations. Students will gain expertise in implementing standard methods and will submit a short dissertation together with a portfolio of computational work.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures (weeks 1 - 10) and a typical average of 0.5 hours of project supervisions (weeks 2 - 11)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S J Brooks

MT5809 Advanced Fluid Dynamics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

This module will examine current research in fluid dynamics, with a particular focus on meteorology and oceanography. The large-scale atmosphere and oceans behave quite unlike a 'classical' fluid owing to the presence of stable density stratification and rotation. As a result, the fluid motion is dominated by slow, 'vortical' or eddying motions (like cyclones) which generally spin slower than the Earth. Superimposed on this slow motion are relatively fast wave-like motions analogous to surface waves on a pond. These lectures describe the mathematical basis of these fundamentally different types of motion, and furthermore illustrate the increasingly important role of computer modelling in this research.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Dr J Reinaud

MT5810 Advanced Solar Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon (even weeks), Tue and Thu			

The object of this module is to describe the magnetohydrodynamic processes at work in the Sun, using modern techniques of applied mathematics, and to discuss the latest theories in relation to aspects of current research within the School.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Prof C E Parnell

MT5821 Advanced Combinatorics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Availability restrictions:	Availability subject to confirmation			
Planned timetable:	12.00 noon Mon (odd weeks), Wed and Fri			

Combinatorics underlies and interacts many topics in discrete mathematics including group theory, statistical design, and statistical mechanics, as well as being a lively subject in its own right. The module will give students a good grounding in the techniques and will engage students with research-level problems. It is designed to make a wide area of combinatorics available to students.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5-hour lectures (weeks 1 - 10) and 1-hour tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Prof P J Cameron

MT5824 Topics in Groups

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon (odd weeks), Wed and Fri			

The overall aim of this module is to build on the foundations established in MT4003/MT4603, and take the students further into this important and beautiful branch of mathematics. More specifically, through a selection of topics, some of which will be of current research interest in St Andrews, it will introduce students to advanced techniques of handling groups and classifying them.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), 1 tutorial and 1 examples class (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Dr C P Bleak

MT5831 Advanced Bayesian Inference

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon (even weeks), Tue and Thu			

This module consists of MT4531 with an additional project which will give consideration to some more advanced aspects of the theory or to the application of Bayesian techniques. This may involve either directed reading or the use of the computer for simulation or data-based analyses. The syllabus includes Bayes' theorem, inference for Normal samples; univariate Normal linear regression; principles of Bayesian computational, Markov chain Monte Carlo - theory and applications.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Anti-requisite(s):	MT4531
Learning and teaching methods and delivery:	**Weekly contact**: 24 lectures and 7 practical classes over semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr M Papathomas

MT5852 Mathematical Biology 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am Mon (odd weeks), Wed and Fri			

This module will explore real world applications of mathematics to biological and medical problems e.g. cell movement, pattern formation in animal coat markings, spread of diseases (AIDS, measles). The mathematical techniques used in the modelling will be nonlinear partial differential equations. The module will be useful to students who wish to specialise in Applied Mathematics in their degree programme.

Programme module type:	Optional for all MSc postgraduate programmes in the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 90%, Coursework (Class Test) = 10%
Module coordinator:	Dr T Lorenzi

30 credits from modules listed above or the following:

MT5613 Advanced Topics in the History of Mathematics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon (odd), Wed & Fri.			

The overall aim of the module is to give students an insight into the historical development of mathematics and an opportunity to research into one particular topic in some depth. This module is taught in parallel with MT4501.

Programme module type:	Optional for all Postgraduate Taught Programmes within the School of Mathematics & Statistics
Anti-requisite(s):	MT4501
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and 1 tutorial.
Assessment pattern:	2 Class Tests = 34%, Coursework: Project = 66%
Module coordinator:	Dr I J Falconer

MT5701 Advanced Statistical Inference

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am Mon (odd weeks), Wed and Fri			

This module consists of MT4606 with the addition of directed reading on more advanced aspects of the subject and a requirement to write a review essay on an aspect of the subject. The syllabus includes: comparison of point estimators; the Rao-Blackwell Theorem; distribution theory; Fisher information and the Cramer-Rao lower bound; maximum likelihood estimation; hypothesis-testing; confidence sets.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics
Anti-requisite(s):	MT4606
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 0.5 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework: Project = 25%
Module coordinator:	Prof A G Lynch

MT5756 Data Analysis

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm			

This module provides coverage of essential statistical concepts, data manipulation and analysis methods, and software skills in commercial analysis packages. Specifically: the different types of data and their numerical/graphical treatment; data entry/import/export, basic probability theory and concepts of inference; fundamental statistical concepts with particular emphasis on sampling issues; basic statistical models and tests; introductory computer-intensive inference. The widespread commercial statistical packages SAS, SPSS are introduced and utilised with Excel for most analyses. The statistical programming language R is also given brief attention. This module is a short intensive course and is a core, preliminary, requirement for the MSc in Applied Statistics and Datamining. It covers material essential for study of the more advanced statistical methods encountered in subsequent modules.

Programme module type:	Compulsory for Applied Statistics and Datamining MSc Programme. An exemption may be granted to an appropriately qualified entrant. Compulsory for Data-Intensive Analysis MSc Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Lectures, tutorials and practicals for 4 weeks.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr V Popov

MT5823 Semigroups

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	9.00 am Mon (odd weeks), Wed and Fri			

The general aim of this module is to introduce students to semigroup theory, which is the study of sets with one associative binary operation defined on them. In the process, the common aims and concerns of abstract algebra will be emphasised and illustrated by drawing comparisons between semigroups, groups and rings.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10), 1 tutorial and 1 examples class (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr J D Mitchell

MT5825 Measure and Probability Theory

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

This module introduces some of the powerful techniques and ideas of modern mathematical analysis and mathematical probability theory that are important both in analysis in its own right and in its many applications in mathematics and science. The module will include topics such as: measure theory, the mathematical foundations for probability theory, law of large numbers. Mathematical analysis and the use of probabilistic methods in analysis is one of the active research areas within the School, and the choice of topics will reflect current activity.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof L Olsen

MT5827 Lie Algebras

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	11.00 am Mon (odd weeks), Wed and Fri			

The aim of this module is to classify the semi-simple Lie algebras over an algebraically closed field. Lie algebra has important applications to theoretical physics and is used in the classification of finite simple groups.

Programme module type:	Optional for all Postgraduate Programmes within the School of Mathematics & Statistics.
Learning and teaching methods and delivery:	**Weekly contact**: 2.5 lectures (weeks 1 - 10) and 1 tutorial (weeks 2 - 11).
Assessment pattern:	2.5-hour Written Examination = 100%
Module coordinator:	Dr A Detinko

MT5990 Independent Study Module				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1 or 2
Planned timetable:	To be arranged.			
This module provides the opportunity for a student to study an Advanced topic as a reading course under the supervision of a member of staff. The topic will be disjoint from those available in other modules.				
Programme module type:	Optional for all Postgraduate programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: Typically 1 hour project supervisions.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A L Wilmot-Smith			

MT5991 Professional Skills for Mathematical Scientists				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module encompasses a range of skills, both generic and topic specific, together with taught components aimed at providing an appreciation of both breadth and depth of research areas in Pure or Applied Mathematics. The precise programme of study, together with the identification of the relevant software expertise required, will be determined in consultation with the student's supervisor.				
Programme module type:	Optional for all Postgraduate programmes within the School of Mathematics & Statistics.			
Learning and teaching methods and delivery:	**Weekly contact**: Varies. Typically 1 project supervision per week over whole year.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J D Mitchell			

For further Mathematics and Statistics modules in the range MT3000 - MT4598 or MT4600 - MT5998 see: 2017/8 Honours Mathematics & Statistics

School of Medicine

Taught Programmes

MSc:

Global Health Implementation
Health Psychology

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Global Health Implementation

Programme Requirements

Global Health Implementation - MSc
120 credits from Module List: MD5201 - MD5210, SS5103, SS5104 **and** MD5299 (60 credits)

MD5201 Issues in Global Health				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Wed and 9.00 am - 11.00 am Fri (TBC)			
This module will serve as an introduction to key issues within global health, which complements other semester 1 modules and provides the basis for topics covered in semester 2 modules. The module is split into three broad themes: 1. Defining global health 2. Approaches to global health and 3. Evidence in global health. Assessment will comprise participation in feedback to peers, engagement in personal reflection, a self-selected mid-semester written assignment, and a self-selected end-of-semester presentation and written assignment				
Programme module type:	Compulsory for MSc in Global Health Implementation			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 10 weeks), 2-hour tutorial (x 10 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr D J Williams			
Module teaching staff:	various			

MD5202 Principles in Implementation Science				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am - 12.00 noon Tue and 2.00 pm - 4.00 pm Thu (TBC)			
This module will identify principles underpinning implementation science ('the study of methods to promote the integration of research findings and evidence into healthcare policy and practice', NIH Fogarty Institute) and make use of a range of experiences and case studies from diverse global settings. More specifically, the module will consider the mandates and functioning of authorities and providers undertaking implementation. Furthermore, it will examine how policies are framed and work through to the level of service delivery in specific contexts covering public and non-government sectors, as well as within communities. Assessment will include participation in feedback to peers, engagement in personal reflection, a self-selected mid-semester written assignment, and a self-selected end-of-semester presentation and written assignment.				
Programme module type:	Compulsory for MSc in Global Health Implementation			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (10 weeks), 2-hour tutorial (x 10 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	TBC			
Module teaching staff:	various			

MD5203 Ten Global Health Problems

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am Mon and 10.00 am - 12.00 noon Thu (TBC)			

This module will consider a range of health problems that represent the diversity of the issues that affect most of the world's population. It will examine the impact of these problems and consider what interventions may be implemented to reduce the associated morbidity and mortality. Knowledge from the module will be gained through a series of "master-classes" delivered by experts in their fields, complimented by student-led discussion sessions. Assessment will take the form of weekly assignments (written and oral) pertaining to that weeks' subject matter.

Programme module type:	Compulsory for MSc in Global Health Implementation
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 11 weeks), 2-hour tutorial (x 10 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr W Dhaliwal
Module teaching staff:	Various

MD5204 Globalisation and Health

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Mon and 11.00 am - 1.00 pm Fri (TBC)			

This module will encourage an analysis of what is meant by globalisation and how this might affect the health of the global community. Globalization within the context of major societal forces such as economics, governance, trade, communication, education and information will be interrogated. The module will have specific objectives for each week and contact details for experts in the field will be provided for each theme. This module has been designed to be student-centred to give students the opportunity to explore globalization and develop their own perspective on this vast, important but ill-defined umbrella term. Assessment will take the form of debating, discussion groups, contributions to a blog site, a self-selected mid-semester written assignment, and a self-selected end-of-semester presentation and written assignment.

Programme module type:	Compulsory for MSc in Global Health Implementation
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar(x 10 weeks), 2-hour tutorial (x 10 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr J Cox-Singh
Module teaching staff:	

MD5203 Ten Global Health Problems

MD5205 Inequalities and Inequities in Global Health

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Tue and 2.00 pm - 4.00 pm Thu (TBC)			

This module will address inequalities and inequities in health, as they relate to race, gender, nationality, geography, and poverty, in the context of global injustice. The module is split into three broad themes: 1. Conceptualising health inequalities and inequities 2. Causes and consequences of health inequalities and inequities and 3. Addressing health inequalities and inequities. Assessment will comprise participation in feedback to peers, engagement in personal reflection, a self-selected mid-semester written policy briefing assignment, and a self-selected end-of-semester presentation and written assignment.

Programme module type:	Compulsory for MSc in Global Health Implementation
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 10 weeks), 2-hour tutorial (x 10 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof C Currie and Dr J Inchley
Module teaching staff:	various

MD5206 Evidence Synthesis for Global Health Policy, Programming, and Practice

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	2.00 pm - 4.00 pm Mon and 11.00 am - 1.00 pm Thu (TBC)			

This module will serve as an introduction to forms of evidence synthesis and its implications for global health policy, programming, and practice. The module will also address issues regarding study design and critical appraisal. Assessment will take the form of six structured critical appraisals of self-selected publications, participation in feedback to peers and engagement in personal reflection, and a self-selected end-of-semester presentation and written assignment based on a systematic review protocol.

Programme module type:	Compulsory for MSc in Global Health Implementation
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 10 weeks), 3-hour practical classes (x 1 week), 2-hour tutorial (x 10 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D J Williams
Module teaching staff:	various

MD5299 Dissertation in Global Health Implementation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module involves undertaking a dissertation on a self-selected topic. One of a variety of formats can be selected, including but not limited to: primary and secondary data projects, evidence synthesis, programme proposal etc. Supervisors can be any one of the full range of MSc staff drawn from across the university. Assessment will take the form of a thesis, oral and poster presentations, and reflective account.

Programme module type:	Compulsory for MSc in Global Health Implementation
Learning and teaching methods and delivery:	**Weekly contact**: 25 hours of contact with supervisor over the year.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D J Williams and Dr W Dhaliwal
Module teaching staff:	various

SS5103 Qualitative Methods in Social Research

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr M Kesey and Dr D Williams

SS5104 Quantitative Research in Social Science

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	1.00 - 5.00 pm Mon			

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion).
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes.
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales

Master of Science Health Psychology

Programme Requirements

Heath Psychology - MSc
120 credits from Module List: MD5001 - MD5004, MD5090 **and** 60 credits from: PS5003, PS5005

Compulsory modules:

MD5001 Theories of Health Psychology and Behaviour Change				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will consist of the knowledge base that covers the context and perspectives of health psychology including an historical overview and current theories and approaches in health psychology. It will include an awareness of other related disciplines, and acknowledgement of social and cultural factors. Theoretical models of health behaviour and behaviour change will be introduced including associated health-related beliefs and cognitions.

Programme module type:	Compulsory for MSc in Health Psychology Postgraduate Programme.
Co-requisite(s):	MD5002, PS5003
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures and a 2-hour tutorial.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Prof G Humphris

MD5002 Quality of Life, Communication and Chronic Illness				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This core module will contain the knowledge base for understanding the conceptual underpinnings of the quality of life field and its importance in generating a debate about the success of health care interventions, assessment of care and definitions of health and illness. The relevance of psychological issues to the person suffering acute and chronic illness will be covered and the important role of communication processes in the interface between patient, clinical staff and care-givers will be included as a key theme. Some practical observation of clinical-related communication processes will be an additional feature of this module.

Programme module type:	Compulsory for MSc in Health Psychology Postgraduate Programme.
Co-requisite(s):	MD5001, PS5003
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures, a 2-hour tutorial and a practical.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr A Laidlaw

MD5003 Biological Systems and Development

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This core module will introduce the importance of biological and developmental systems to the understanding of people's perceived and actual health status including methods of assessing health behaviour and intervening to change health behaviour. This module will consist of learning a generalisable tool to analyse and pool the effects of interventions, namely meta-analysis.

Programme module type:	Compulsory for MSc in Health Psychology Postgraduate Programme.
Pre-requisite(s):	MD5001, MD5002
Co-requisite(s):	PS5003, PS5005
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures, a 2-hour tutorial and a practical.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr J Cecil
Module teaching staff:	

MD5004 Health Information, Prevention and Decision Making

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This core module introduces the student to the expanding field of health information, prevention and decision making. Members of the public, whether they are patients or not are bombarded with health information and mis-information, via various media, from which they may process and make decisions about entering or remaining in the health care system, or embarking on new health or self care interventions designed to improve outcome. Students will acquire understanding on how to assess the influence of these interventions through detailed examination of a mixture of theoretical and practical steps.

Programme module type:	Compulsory for MSc in Health Psychology Postgraduate Programme.
Pre-requisite(s):	MD5001, MD5002
Co-requisite(s):	PS5003, PS5005
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures, a 2-hour tutorial and a practical.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr G Ozakinci
Module teaching staff:	

MD5090 Research Project in Health Psychology

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

The dissertation will consist of a written report of original, empirical health psychology research, up to 5,000 words in length. It will consist of an appropriate literature review, statement of aims, methods, results, discussion and conclusion sections with supporting bibliography. The project will be supervised and receive ethical approval.

Programme module type:	Compulsory for MSc in Health Psychology Postgraduate Programme.
Co-requisite(s):	MD5001, MD5002, MD5003, MD5004, PS5003, PS5005
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Project report (Dissertation) = 100%
Module coordinator:	Prof G Humphris and Dr J Cecil

PS5003 Generic Research and Professional Skills in Psychology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This module introduces students to the various skills and issues that are of importance to academic psychologists irrespective of their particular area of research. Weekly seminars will cover the various topics, such as academic presentations (published writing, talks, posters), the use of technology in order to enhance communication, how to read research reports, how to gain ethical approval for research, and how to build an academic career.

Programme module type:	Compulsory for Research Methods in Psychology (MSc) Compulsory for MSc in Health Psychology. Optional for MSc - Evolutionary and Comparative Psychology: the Origins of Mind.
Co-requisite(s):	All seven modules are to be taken together in the same session. The 'same session' requirement may be waived at the discretion of the Head of School.
Learning and teaching methods and delivery:	**Weekly contact**: 17 x 2-hour seminars.
Assessment pattern:	4 elements of Coursework = 100%
Module coordinator:	Dr S Pehrson

PS5005 Methods of Data Analysis in Psychology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon			

This module aims to ensure that students are competent in the use of advanced data analysis in psychology. This includes advanced training in common statistics (including regression, analysis of variance and multivariate techniques) plus additional training in qualitative methods. Students will also study more complex topics such as statistical modeling.

Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind, MSc Psychology (Conversion), MSc in Health Psychology, Compulsory for Research Methods in Psychology (MSc)
Learning and teaching methods and delivery:	**Weekly contact**: 11 x 3-hour workshops plus optional tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Bowman
Module teaching staff:	Dr E Bowman, Dr R Spence, Dr S Pehrson and Professor S Reicher

PS5005 Methods of Data Analysis in Psychology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2

School of Modern Languages

Taught Programmes

MLitt:

Central and Eastern European Studies *(see section 16)*
Comparative Literature
Cultural Identity Studies
French Studies
German Studies
Italian Studies
Mediaeval Studies *(see section 16)*
Middle Eastern Literary and Cultural Studies Russian Studies
Spanish and Latin American Studies

MLitt Mundus Masters (EU):

Crossways in Cultural Narratives

MLitt/MA:

German and Comparative Literature

MPhil:

Arabic
Central and Eastern European Studies *(see section 16)*
Comparative Literature
Cultural Identity Studies
French
German
Hispanic Studies
Italian
Mediaeval Studies *(see section 16)*
Middle Eastern Literary and Cultural Studies
Russian Studies
Spanish and Latin American Studies

Modern Languages optional modules

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Letters Comparative Literature

Programme Requirements

Comparative Literature - MLitt
((80 credits from Module List: CO5001 - CO5002, ML5001, ML5004 **and** 40 credits from Module List: AP5013-AP5014, FR5013-FR5014, GM5013-GM5014, IT5013-IT5014, ML5006, ML5105, ML5201, RU5013-RU5014, SP5013-SP5014) or (90 credits from Module List: CO5001 - CO5002, CO5004, ML5001, ML5004 **and** 40 credits from Undergraduate language modules) **and** ML5099 (60 credits)

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

CO5001 Apples and Oranges: Issues in Comparative Literature					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
This module explores some of the key theoretical and methodological questions which arise when texts enter into relation with one another. A range of possible relations is explored by means of a number of case studies, for instance: interdisciplinary and intermedial relations; genetic relations; intercultural adaptations; clashes. Students are expected to find further texts to 'prolong' the comparison in a meaningful way, drawing on their respective expertise in different languages, thus developing an in-depth understanding of methods and theoretical frameworks in Comparative Literature. The module will be based on at least three disciplines, including but not limited to Arabic, French, German, Italian, Persian, Russian, Spanish. Translations of the core texts discussed in class will be available.					
Programme module type:	Compulsory for Comparative Literature and German and Comparative Literature Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for Cultural Identity Studies Postgraduate Programme.				
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (lectures and seminars)				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr S Talajooy				
Module teaching staff:	Team taught				

CO5002 The Contemporary Canon: Why Books Sell

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2

Planned timetable:	To be arranged.

The module analyses the meaning of the word 'contemporary' as applied to literary texts, exploring questions such as: does 'contemporary' signify '10 years ago' or '10 months ago'? Who decides (e.g. which institutions and market forces)? Does this differ from one European country to another? From one genre to another? Different theories of canon-formation are assessed in terms of their viability vis-à-vis contemporary literature: can there be a truly contemporary canon? Is world literature linked to canon formation? What is the role of publishing houses, retailers, literary prizes, the internet, social media and media scandals in constructing 'today's canon'? The module is based on at least three disciplines, including but not limited to Arabic, French, German, Italian, Persian, Russian, Spanish, and combines theoretical sessions with a number of case studies.

Programme module type:	Compulsory for Comparative Literature Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for Cultural Identity Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (lectures and seminars)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof M-A Hutton
Module teaching staff:	Team taught

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged.

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for German and Comparative Literature Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programme. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

ML5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Comparative Literature and Cultural Identity Studies MLitt Postgraduate Programmes.
Anti-requisite(s):	ML5199
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Dissertation = 100%
Module Co-ordinator:	Head of relevant Department

Further compulsory module for alternative pathway:

CO5004 Specialised Reading and Translating for Comparative Literature				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module combines language and content elements in the form of directed study and aims to prepare students who are taking the language pathway of the Comparative Literature MLitt for the independent research they will undertake in their dissertation. Students are given additional exposure to the new language they are learning and expert advice and practice on the content material (authors/subjects) which they intend to pursue in their dissertation. The expertise can be drawn from any of the languages taught in the School of Modern Languages: Arabic, German, Italian, Persian, Russian and Spanish. If a student comes in with a level of French equivalent to A-level, AP score of 4 or SATII score of 700+, and embarks on the language pathway in French, they can also take the module in French. Translations of the core texts discussed in class will be available to help facilitate student learning.				
Programme module type:	Compulsory for Comparative Literature - language pathway option			
Pre-requisite(s):	CO5001			
Co-requisite(s):	CO5002			
Learning and teaching methods and delivery:	**Weekly contact**: A total of 6 hours of seminars and 2 hours of tutorial over the semester.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S Talajooy			
Module teaching staff:	Team taught			

along with Undergraduate language modules.

For optional modules available:

see pdf online called Modern Languages - optional modules 2017-2018.

Master of Letters Crossways in Cultural Narratives

Programme Requirements

Crossways in Cultural Narratives - MLitt
First Year (Semester One in St Andrews) ML5001 (20 credits) **and** 20 credits from Module List: FR1000 - FR4999, IT1000 - IT4999, SP1000 - SP4999 **and** 20 credits from Module List: AP5011, AP5013, CO5001, FR5011, FR5013, GM5011, GM5013, IT5011, IT5013, ML5006, ML5105, RU5011, RU5013, SP5011, SP5013 Please balance your selections across the academic year **First Year (Semester Two in St Andrews)** ML5104 (20 credits) **or** (ML5106 (10 credits) **and** ML5108 (10 credits)) **and** Between 0 and 40 credits from Module List: ML5004, ML5006 - ML5007, ML5105 **and** Between 0 and 40 credits from Module List: AP5011, AP5013, CO5001, FR5011, FR5013, GM5011, GM5013, IT5011, IT5013, ML5006, ML5105, RU5011, RU5013, SP5011, SP5013 Students must select 60 credits for the semester. Please balance your selections across the academic year **Second Year (Semester One in St Andrews)** ML5107 (20 credits) **and** ML5001 (20 credits) **and** Between 0 and 40 credits from Module List: ML5004, ML5006 - ML5007, ML5105 **and** Between 0 and 40 credits from Module List: AP5011, AP5013, CO5001, FR5011, FR5013, GM5011, GM5013, IT5011, IT5013, ML5006, ML5105, RU5011, RU5013, SP5011, SP5013 ML5001 is recommended unless equivalent training has been or will be gained in a partner institution. Students must select 60 credits for the semester. Please balance your selections across the academic year **Second Year (Semester Two in St Andrews)** ML5199 (40 credits) **and** 20 credits from Module List: AP5014, CO5002, FR5014, GM5014, IT5014, ML5004, ML5007, ML5201, RU5014, SP5014

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

Compulsory modules (depending on pathway):

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for German and Comparative Literature Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5104 Dissertation Report (Mundus)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

The Semester 2 Dissertation Report (10 ECTS) is an extended scholarly essay of approximately 10,000 words, reviewing the critical material available and outlining a first approach to the research topic to be addressed in the Masters Dissertation The student collects the necessary data and performs the following specified operations: (i) determination and evaluation of a corpus of primary material, together with a first effort of analysis designed to explore and demonstrate the potential of the subject ; (ii) bibliographical survey of secondary sources, analysing and evaluating all critical material to be used; (iii) definition of perspectives of approach and methodology to be followed by the 30 ECTS Dissertation; (iv) delimitation of the subject and determination of title, together with a proposed plan.

Programme module type:	One of two compulsory pathways in Crossways in Cultural Narratives Postgraduate Programme. (The alternative is the pair ML5106 and ML5108)
Pre-requisite(s):	Admission to Crossways in Cultural Narratives programme
Anti-requisite(s):	ML5009, ML5106, ML5108
Learning and teaching methods and delivery:	**Weekly contact**: 4 - 5 hours over semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M White
Module teaching staff:	A tutor to be chosen according to specialism

ML5106 Short Dissertation Report

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2	
Planned timetable:	To be arranged.				

The Semester 2 Short Dissertation Report (5 ECTS) is an extended scholarly essay of approximately 6,000 words, reviewing the critical material available and outlining a first approach to the research topic to be addressed in the Masters Dissertation. The student collects the necessary data and performs the following specified operations: (i) determination and evaluation of a corpus of primary material, together with a first effort of analysis designed to explore and demonstrate the potential of the subject; (ii) bibliographical survey of secondary sources, analysing and evaluating all critical material to be used; (iii) definition of perspectives of approach and methodology to be followed by the 30 ECTS Dissertation; (iv) delimitation of the subject and determination of title, together with a proposed plan.

Programme module type:	Together with ML5108, one of two compulsory pathways in Crossways in Cultural Narratives Postgraduate Programme. (The alternative is ML5104)
Pre-requisite(s):	Admission to Crossways in Cultural Narratives programme

Co-requisite(s):	ML5108	**Anti-requisite(s):**	ML5104

Learning and teaching methods and delivery:	**Weekly contact**: 4 - 5 hours over semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M White
Module teaching staff:	A tutor to be chosen according to specialism

ML5107 Dissertation Progress

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:					

This module is part of a series of three devoted to the research leading to the Mundus Dissertation. It comes after ML5104 Mundus Dissertation Report and before ML5199 Mundus Dissertation. It consists of a series of one-to-one meetings with the supervisor in which specific areas and issues of the topic are explored. The module outcome is twofold: (i) a 5,000-word piece of writing which is consistent with the work to be carried out in the Dissertation, such as a literature review or a first full draft of a chapter, or shorter versions of more than one; and (ii) an oral presentation where the student provides a summary of the progress achieved towards the Dissertation during the semester and pointing to work that is to be embarked upon during the next and final semester.

Programme module type:	Compulsory for Crossways in Cultural Narratives Postgraduate Programme
Pre-requisite(s):	ML5104 or ML5106 and ML5108
Co-requisite(s):	ML5199
Learning and teaching methods and delivery:	**Weekly contact**: 4 - 5 hours over semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M White
Module teaching staff:	A tutor to be chosen according to specialism

ML5108 Work-Related Project

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides the student with the opportunity to engage with the world of employment via a placement and/or project and thus to explore the application of the academic and intellectual skills gained on the course. It is a compulsory part of semester 2 of the Master Mundus in Crossways in Cultural Narratives and the work is carried out either during term time or for a period of up to four weeks in the summer between semesters 2 and 3.

Programme module type:	Together with ML5106, one of two compulsory pathways in Crossways in Cultural Narratives Postgraduate Programme. (The alternative is ML5104)		
Pre-requisite(s):	Admission to Crossways in Cultural Narratives programme		
Co-requisite(s):	ML5106	Anti-requisite(s):	ML5104
Learning and teaching methods and delivery:	**Weekly contact**: 4 - 5 hours over semester		
Assessment pattern:	Coursework = 100%		
Module coordinator:	TBC		

ML5199 Dissertation

SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This 20 ECTS (40 SCOTCAT credit) module is a compulsory 20,000 word dissertation written on an approved topic as the culmination of the EU-funded Mundus Masters programme. Normally, it is written at the third University of the student's study itinerary during Semester 4 of the programme. In the one-year, direct entry variant of the programme, it is prepared during the 'trailing semester' (non-residential) which runs from the end of semester 2 to the following 31 September. In both cases, it is written in one of the principal languages of study (not necessarily in the language of the country of study) and is supervised by a 'principal' and a 'support' supervisor from two Universities of the Consortium.

Programme module type:	Compulsory for Crossways in Cultural Narratives Postgraduate Programme
Pre-requisite(s):	Admission to Crossways in Cultural Narratives programme
Anti-requisite(s):	ML5099
Learning and teaching methods and delivery:	**Weekly contact**: 4 - 5 hours over semester
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M White
Module teaching staff:	A tutor to be chosen according to specialism

Optional modules:

CO5001 Apples and Oranges: Issues in Comparative Literature

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module explores some of the key theoretical and methodological questions which arise when texts enter into relation with one another. A range of possible relations is explored by means of a number of case studies, for instance: interdisciplinary and intermedial relations; genetic relations; intercultural adaptations; clashes. Students are expected to find further texts to 'prolong' the comparison in a meaningful way, drawing on their respective expertise in different languages, thus developing an in-depth understanding of methods and theoretical frameworks in Comparative Literature. The module will be based on at least three disciplines, including but not limited to Arabic, French, German, Italian, Persian, Russian, Spanish. Translations of the core texts discussed in class will be available.

Programme module type:	Compulsory for Comparative Literature and German and Comparative Literature Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for Cultural Identity Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (lectures and seminars)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Talajooy
Module teaching staff:	Team taught

CO5002 The Contemporary Canon: Why Books Sell

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2

Planned timetable:	To be arranged.

The module analyses the meaning of the word 'contemporary' as applied to literary texts, exploring questions such as: does 'contemporary' signify '10 years ago' or '10 months ago'? Who decides (e.g. which institutions and market forces)? Does this differ from one European country to another? From one genre to another? Different theories of canon-formation are assessed in terms of their viability vis-à-vis contemporary literature: can there be a truly contemporary canon? Is world literature linked to canon formation? What is the role of publishing houses, retailers, literary prizes, the internet, social media and media scandals in constructing 'today's canon'? The module is based on at least three disciplines, including but not limited to Arabic, French, German, Italian, Persian, Russian, Spanish, and combines theoretical sessions with a number of case studies.

Programme module type:	Compulsory for Comparative Literature Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for Cultural Identity Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (lectures and seminars)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof M-A Hutton
Module teaching staff:	Team taught

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

ML5006 Problems of Culture and Identity 1

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

The module aims to introduce major aspects and dimensions of the question of cultural identity. Through the study of a broad range of particular cultural traditions, it seeks to enhance understanding of the concepts and mechanisms involved in the formation of collective identity as such (the 'poetics' of cultural identity). Particular topics treated may include: concepts of culture and identity; collective memory; icons of identity; historiography and myth; complex identities and cultural hybridity.

Programme module type:	Compulsory for Cultural Identity Studies Postgraduate Programme.
	Optional for Crossways in Cultural Narratives Postgraduate Programme.
	Optional for other MLitt students within and outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof G San Roman

ML5007 Problems of Culture and Identity 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 Wed			

The module aims to explore further major aspects, dimensions of cultural identity beyond those studied in ML5006 and focuses in particular on personal, rather than group identity. Particular topics treated may include: the dialectical relationship between personal and collective identities, the self and alterity, narrative and identity formation, situatedness and corporeality, recognition, transnational identities and problems of autobiography.

Programme module type:	Compulsory for Cultural Identity Studies Postgraduate Programme.
	Optional for other MLitt students within and outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Cusack

ML5105 Europe and America: Dialogues and Identity Formation in Text, Film and Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Tue and Wed			

This module will focus on the relationship between Europe and the Americas (i.e. Latin and North America, including Canada). It will explore the ways in which European authors and thinkers encounter, embrace, oppose or reject American cultures, politics and values, and how American authors in turn react to European influences. The subject will be studied through a range of literary, filmic and theoretical approaches generated in France, Germany, Spain, Italy and Russia, as well as in Latin and North America, from the discovery of the New World to the 21st century. More particularly, this module will invite students to further their awareness and understanding of the notions of identity and power at play in the many different discourses generated in Europe about America as well as different axes or networks of dialogue between North America, Latin America and Europe.

Programme module type:	Optional for Comparative Literature, Cultural Identity Studies and Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5 hours comprising a combination of lectures and seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

Further optional Modern Language modules available:

see pdf online called PG Modern Languages - optional modules 2017 - 2018.

Masters in Cultural Identity Studies

Cultural Identity Studies - MLitt
80 credits from Module List: CO5001 - CO5002, ML5001 - ML5002, ML5004, ML5007 **and** 40 credits from Modules: AP5013-AP5014, FR5013-FR5014, GM5013-GM5014, IT5013-IT5014, ML5002, ML5006, ML5105, ML5201, RU5013-RU5014, SP5013-SP5014 **and** ML5099 (60 credits)   **Further requirements** Choose 180 credits in academic year.

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

CO5001 Apples and Oranges: Issues in Comparative Literature					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
This module explores some of the key theoretical and methodological questions which arise when texts enter into relation with one another. A range of possible relations is explored by means of a number of case studies, for instance: interdisciplinary and intermedial relations; genetic relations; intercultural adaptations; clashes. Students are expected to find further texts to 'prolong' the comparison in a meaningful way, drawing on their respective expertise in different languages, thus developing an in-depth understanding of methods and theoretical frameworks in Comparative Literature. The module will be based on at least three disciplines, including but not limited to Arabic, French, German, Italian, Persian, Russian, Spanish. Translations of the core texts discussed in class will be available.					
Programme module type:	Compulsory for Comparative Literature and German and Comparative Literature Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for Cultural Identity Studies Postgraduate Programme.				
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (lectures and seminars)				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr S Talajooy				
Module teaching staff:	Team taught				

CO5002 The Contemporary Canon: Why Books Sell

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2

Planned timetable:	To be arranged.

The module analyses the meaning of the word 'contemporary' as applied to literary texts, exploring questions such as: does 'contemporary' signify '10 years ago' or '10 months ago'? Who decides (e.g. which institutions and market forces)? Does this differ from one European country to another? From one genre to another? Different theories of canon-formation are assessed in terms of their viability vis-à-vis contemporary literature: can there be a truly contemporary canon? Is world literature linked to canon formation? What is the role of publishing houses, retailers, literary prizes, the internet, social media and media scandals in constructing 'today's canon'? The module is based on at least three disciplines, including but not limited to Arabic, French, German, Italian, Persian, Russian, Spanish, and combines theoretical sessions with a number of case studies.

Programme module type:	Compulsory for Comparative Literature Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for Cultural Identity Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (lectures and seminars)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof M-A Hutton
Module teaching staff:	Team taught

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1

Planned timetable:	To be arranged.

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes. Optional for German and Comparative Literature Postgraduate Programme. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5002 Literary and Cultural Theory (2)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module and its 'partner' module ML5001 seek(s) to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Nietzsche; Gramsci; Sartre; reader response theory; Foucault; Barthes; narratology; affect theory; ecocriticism.

Programme module type:	Compulsory for French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Cultural Identity Studies Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

ML5007 Problems of Culture and Identity 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 Wed			

The module aims to explore further major aspects, dimensions of cultural identity beyond those studied in ML5006 and focuses in particular on personal, rather than group identity. Particular topics treated may include: the dialectical relationship between personal and collective identities, the self and alterity, narrative and identity formation, situatedness and corporeality, recognition, transnational identities and problems of autobiography.

Programme module type:	Compulsory for Cultural Identity Studies Postgraduate Programme.
	Optional for other MLitt students within and outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Cusack

ML5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Comparative Literature and Cultural Identity Studies MLitt Postgraduate Programmes.
Anti-requisite(s):	ML5199
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Dissertation = 100%
Module coordinator:	Head of relevant Department

Optional modules:

ML5002 Literary and Cultural Theory (2)

see above

ML5006 Problems of Culture and Identity 1

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

The module aims to introduce major aspects and dimensions of the question of cultural identity. Through the study of a broad range of particular cultural traditions, it seeks to enhance understanding of the concepts and mechanisms involved in the formation of collective identity as such (the 'poetics' of cultural identity). Particular topics treated may include: concepts of culture and identity; collective memory; icons of identity; historiography and myth; complex identities and cultural hybridity.

Programme module type:	Compulsory for Cultural Identity Studies Postgraduate Programme.
	Optional for Crossways in Cultural Narratives Postgraduate Programme.
	Optional for other MLitt students within and outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour lecture and 1-2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof G San Roman

ML5105 Europe and America: Dialogues and Identity Formation in Text, Film and Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Tue and Wed			

This module will focus on the relationship between Europe and the Americas (i.e. Latin and North America, including Canada). It will explore the ways in which European authors and thinkers encounter, embrace, oppose or reject American cultures, politics and values, and how American authors in turn react to European influences. The subject will be studied through a range of literary, filmic and theoretical approaches generated in France, Germany, Spain, Italy and Russia, as well as in Latin and North America, from the discovery of the New World to the 21st century. More particularly, this module will invite students to further their awareness and understanding of the notions of identity and power at play in the many different discourses generated in Europe about America as well as different axes or networks of dialogue between North America, Latin America and Europe.

Programme module type:	Optional for Comparative Literature, Cultural Identity Studies and Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1.5 hours comprising a combination of lectures and seminars.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

For details of further optional modules available, see Modern Languages - optional modules 207/8.

Master of Letters French Studies

Programme Requirements

French Studies - MLitt
120 credits from Module List: FR5011, FR5014, ML5001 - ML5002, ML5004 **and** FR5199 (60 credits)

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

FR5011 French Literary Revolutions (40)					
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
French Literary Revolutions: this module will enable postgraduates actively to acquire advanced knowledge of contexts that have shaped literature and culture in the French-speaking lands from the Renaissance to the present day. It draws on the expertise of researchers in the Dept of French, and concentrates on the research-led study of major conflicts and continuities in the cultural, literary or intellectual history of the French-speaking lands. The conflicts and continuities studied will vary from year to year but may include: ancients and moderns in the Renaissance, C17th theatrical controversies, Enlightenment travel literature, the Romantic revolution, Symbolism and Decadence, C20th representations of war, literature and philosophy, autofiction and C21st movements such as littérature monde.					
Programme module type:	Compulsory for French Studies Postgraduate Programme. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for other MLitt students outside Modern Languages with permission of both Schools.				
Anti-requisite(s):	FR5013				
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures				
Assessment pattern:	Coursework = 100%				
Module coordinator:	TBC				

FR5014 Specialised Research in French Studies

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

The module offers students the opportunity to draw on expertise in the Department of French for the exploration of a relevant topic in some depth. Potential subjects of study could include, for example, literature and culture of the Renaissance, C17th-C20th theatre, literature and ideas of the Enlightenment, C19th and C20th literature, culture, politics and society, music and poetry, autobiography, C21st literature, modern French thought, cinematic adaptations of French novels. Teaching and learning will proceed on the basis of a series of seminars and an agreed programme of readings.

Programme module type:	Compulsory for French Studies Postgraduate Programme.
	Optional for Comparative Literature, Cultural Identity Studies and Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Bowd
Module teaching staff:	various

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for German and Comparative Literature Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5002 Literary and Cultural Theory (2)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module and its 'partner' module ML5001 seek(s) to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Nietzsche; Gramsci; Sartre; reader response theory; Foucault; Barthes; narratology; affect theory; ecocriticism.

Programme module type:	Compulsory for French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes. Optional for Cultural Identity Studies Postgraduate Programmes. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programme. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

FR5199 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for French Studies MLitt Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Dissertation = 100%
Module coordinator:	Dr G Bowd

Master of Letters German and Comparative Literature

Programme Requirements

Comparative Literature - MLitt	
	60 credits from Module List: CO5001, GM5011 **or** (40 credits from Module List: CO5001, GM5013 **and** 20 credits from Module List: AP5013-AP5014, EN5115-5116, EN5202, EN5301-5304, EN5501-5502, EN5511-5512, FR5013-FR5014, GM5013-GM5014, IT5013-IT5014, ML5006, ML5105, ML5201, RU5013-RU5014, SP5013-SP5014) **and** GM5199 (60 credits) Further requirements Choose 120 credits in academic year

Compulsory modules:

CO5001 Apples and Oranges: Issues in Comparative Literature					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				

This module explores some of the key theoretical and methodological questions which arise when texts enter into relation with one another. A range of possible relations is explored by means of a number of case studies, for instance: interdisciplinary and intermedial relations; genetic relations; intercultural adaptations; clashes. Students are expected to find further texts to 'prolong' the comparison in a meaningful way, drawing on their respective expertise in different languages, thus developing an in-depth understanding of methods and theoretical frameworks in Comparative Literature. The module will be based on at least three disciplines, including but not limited to Arabic, French, German, Italian, Persian, Russian, Spanish. Translations of the core texts discussed in class will be available.

Programme module type:	Compulsory for Comparative Literature and German and Comparative Literature Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for Cultural Identity Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (lectures and seminars)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Talajooy
Module teaching staff:	Team taught

GM5011 German Literary and Cultural Contexts: Turning Points (40)

SCOTCAT Credits:	40	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module seeks to enable postgraduates actively to acquire advanced knowledge of contexts that have shaped literature and culture in the German-speaking lands from the Middle Ages to the present day. It draws on the expertise of academic teachers in the Department of German, and concentrates on the research-led study of selected turning points in the cultural, literary or intellectual history of the German-speaking lands. The turning points studied will vary but may include: Early Modern print culture, the making of German letters, the 'Sattelzeit' around 1800, urban modernisms around 1900, the Weimar Republic, Stunde Null and the radical contemporary.

Programme module type:	Compulsory for German Studies Postgraduate Programme. Optional for Central and East European Studies, German and Comparative Literature, and Crossways in Cultural Narratives Postgraduate Programmes.
Anti-requisite(s):	GM5013
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Cusack
Module teaching staff:	various

OR

GM5013 German Literary and Cultural Contexts (20)

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module seeks to enable postgraduates actively to acquire advanced knowledge of contexts that have shaped literature and culture in the German-speaking lands from the Middle Ages to the present day. It draws on the expertise of academic teachers in the Department of German, and concentrates on the research-led study of selected turning points in the cultural, literary or intellectual history of the German-speaking lands. The turning points studied will vary but may include: Early Modern print culture, the making of German letters, the 'Sattelzeit' around 1800, urban modernisms around 1900, the Weimar Republic, Stunde Null and the radical contemporary.

Programme module type:	Optional for Comparative Literature, Cultural Identity Studies, German and Comparative Literature and Crossways in Cultural Narratives Postgraduate Programmes. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Anti-requisite(s):	GM5011
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Cusack
Module teaching staff:	various

AND ONE OF:

Optional Modern Language modules available:
AP5013   Middle Eastern Literary and Cultural Contexts (20)
FR5013   French Literary Revolutions (20)
IT5013   Italian Literary and Cultural Contexts (20)
ML5001   Literary and Cultural Theory (1)
RU5013   New Approaches to the Russian Literary Canon (20) (QUERIES - to be confirmed)
SP5013   Patterns in Hispanic Literature and Film (20)

Optional English modules available:
EN5115   Women, Writing and Gender 1: Renaissance to Romanticism
EN5116   Women, Writing and Gender 2: Victorian to Contemporary
EN5301   The Continental Renaissance
EN5302   Shakespeare and Textual Culture
EN5303   Renaissance Popular Culture
EN5304   Learned Culture: Rhetoric, Politics and Identity
EN5501   Contextualising the Modern
EN5502   Reading the Modern
EN5511   Theorising the Contemporary
EN5512   Contemporary Literature and Culture

Use online search engine for details: https://portal.st-andrews.ac.uk/catalogue/
Or view the pdf of optional modules for each School

Compulsory module for the MLitt:

GM5199 Dissertation for German and Comparative Literature				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised jointly by members of the teaching staff in St Andrews and in Bonn who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 18,000 words must be submitted on the last day of exams in the May Exam Diet.				
Programme module type:	Compulsory for German and Comparative Literature MLitt Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	Dr A Cusack			

Master of Letters German Studies

Programme Requirements

German Studies - MLitt
120 credits from Module List: GM5011, GM5014, ML5001 - ML5002, ML5004 **and** GM5099 (60 credits)

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

GM5011 German Literary and Cultural Contexts: Turning Points (40)					
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
This module seeks to enable postgraduates actively to acquire advanced knowledge of contexts that have shaped literature and culture in the German-speaking lands from the Middle Ages to the present day. It draws on the expertise of academic teachers in the Department of German, and concentrates on the research-led study of selected turning points in the cultural, literary or intellectual history of the German-speaking lands. The turning points studied will vary but may include: Early Modern print culture, the making of German letters, the 'Sattelzeit' around 1800, urban modernisms around 1900, the Weimar Republic, Stunde Null and the radical contemporary.					
Programme module type:	Compulsory for German Studies Postgraduate Programme. Optional for Central and East European Studies, German and Comparative Literature, and Crossways in Cultural Narratives Postgraduate Programmes.				
Anti-requisite(s):	GM5013				
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr A Cusack				
Module teaching staff:	various				

GM5014 Specialised Research in German Studies

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides the opportunity for postgraduate students to develop their skills of literary and textual analysis through directed reading on a topic of their choice. They will be able to study an author, discursive genre, or school in German literature, cultural studies or theory from the Medieval age to the modern day, and learn to generate original research questions on their chosen topic.

Programme module type:	Compulsory for German Studies Postgraduate Programme.
	Optional for Comparative Literature, Cultural Identity Studies, Crossways in Cultural Narratives Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Cusack
Module teaching staff:	various

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for German and Comparative Literature Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5002 Literary and Cultural Theory (2)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module and its 'partner' module ML5001 seek(s) to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Nietzsche; Gramsci; Sartre; reader response theory; Foucault; Barthes; narratology; affect theory; ecocriticism.

Programme module type:	Compulsory for French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Cultural Identity Studies Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

GM5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year

Planned timetable:	At times to be arranged with the supervisor.

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for German Studies MLitt Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Dissertation = 100%
Module coordinator:	Dr A Cusack

GM5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year

Master of Letters Italian Studies

Programme Requirements

Italian Studies - MLitt
120 credits from Module List: IT5011, IT5014, ML5001 - ML5002, ML5004 **and** IT5099 (60 credits)

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

IT5011 Italian Literary and Cultural Contexts: Italians (40)					
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
A young country with a long history, the problem of defining what it means to be Italian predates the formation of the nation state and remains unresolved in the 21st century. This module investigates diverse notions of identity through a variety of cultural production in Italian from the 13th century to the present day. Definitions of Italy and Italians have been largely constructed and located in its literature and culture, so the close study of texts, visual culture, and film is fundamental for understanding both the contemporary and historical reality of Italy. Issues explored in the module will be tailored to fit individual student interests and may include: gender, sexuality, race, language, borders, and regional identities.					
Programme module type:	Compulsory for Italian Studies Postgraduate Programme. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for other MLitt students				
Anti-requisite(s):	IT5013				
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	TBC				
Module teaching staff:	various				

IT5014 Specialised Research in Italian Studies

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module allows students to pursue in greater depth more particular interests which fit with areas of expertise among the academic staff in Italian. This will take the form of extended study of individual authors, or topics, in or across historical periods. Typical areas of study might be Renaissance humanism, 20th Century Italian poetry, Postcolonial Italy, Freudian and post-Freudian psychoanalytic literary theory, Love in Early Italian literature, gender and sexuality in Italian film; or the in-depth study of individual writers or directors.

Programme module type:	Compulsory for Italian Studies Postgraduate Programme.
	Optional for Comparative Literature, Cultural Identity Studies and Crossways in Cultural Narratives Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC
Module teaching staff:	various

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for German and Comparative Literature Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5002 Literary and Cultural Theory (2)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module and its 'partner' module ML5001 seek(s) to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Nietzsche; Gramsci; Sartre; reader response theory; Foucault; Barthes; narratology; affect theory; ecocriticism.

Programme module type:	Compulsory for French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes. Optional for Cultural Identity Studies Postgraduate Programmes. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programme. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

IT5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year

Planned timetable:	At times arranged with the supervisor(s).

Student dissertations will be supervised by members of the teaching staff in Italian who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Italian MLitt Postgraduate Programmes. Optional for other MLitt students in outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: At times arranged with the supervisor(s).
Assessment pattern:	Dissertation = 100%
Module coordinator:	Head of Italian

Master of Letters Middle Eastern Literary and Cultural Studies

Programme Requirements

Middle Eastern Literary and Cultural Studies - MLitt
120 credits from Module List: AP5011, AP5014, ML5001 - ML5002, ML5004 **and** AP5099 (60 credits) ML5099 (60 credits)

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

AP5011 Middle Eastern Literary and Cultural Contexts (40)				
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
The module provides students with a comprehensive knowledge of important elements of classical and modern Arabic and Persian literatures and cultures from pre-Islamic times to the present. Students will be exposed to a greater variety of literary texts than at undergraduate level and some of these key texts will be explored in detail. Students will be expected to read some key texts in Arabic or Persian depending on their language choice.				
Programme module type:	Compulsory for Middle Eastern Literary and Cultural Studies Postgraduate Programme. Optional for Crossways in Cultural Narratives Postgraduate Programme. Optional for other MLitt students in outside Modern Languages with permission of both Schools.			
Pre-requisite(s):	First degree in Arabic or Persian or similar knowledge of Arabic or Persian [classical and/or modern standard Arabic or Persian]			
Anti-requisite(s):	AP5013			
Learning and teaching methods and delivery:	**Weekly contact**: 1 - 2 seminars per week and 3 lectures over the semester.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S Talajooy			

AP5014 Specialised Research in Middle Eastern Literatures and Cultures

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module provides the opportunity for postgraduate students to develop their skills of literary and textual analysis through directed reading on a topic of their choice. They will be able to study an author or selection of Arab or Persian authors from the classical or modern period and learn to generate original research questions on topics as varied as the pre-Islamic poetry and the Arab or Persian novel or drama.

Programme module type:	Compulsory for Middle Eastern Literary and Cultural Studies Postgraduate Programme.
	Optional for Comparative Literature, Cultural Identity Studies, Crossways in Cultural Narratives Mundus Postgraduate Programmes.
Pre-requisite(s):	First degree in Arabic or Persian or similar knowledge of Arabic or Persian [classical and/or modern standard Arabic or Persian]
Learning and teaching methods and delivery:	**Weekly contact**: 6 tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Talajooy

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for German and Comparative Literature Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5002 Literary and Cultural Theory (2)

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2

Planned timetable:	To be arranged.

This module and its 'partner' module ML5001 seek(s) to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Nietzsche; Gramsci; Sartre; reader response theory; Foucault; Barthes; narratology; affect theory; ecocriticism.

Programme module type:	Compulsory for French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Cultural Identity Studies Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2

Planned timetable:	To be arranged.

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

AP5099 Dissertation for MLitt Programme/s				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times arranged with the supervisor(s).			
Student dissertations will be supervised by members of the teaching staff in Arabic and Persian who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
Programme module type:	Compulsory for Middle Eastern Literary and Cultural Studies MLitt Postgraduate Programme. One of HI5099, AP5099, ME5099 or MO5099 compulsory for Middle Eastern History Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: At times arranged with the supervisor(s)			
Assessment pattern:	Dissertation = 100%			
Module coordinator:	TBC			
Module teaching staff:	Team taught/various			

Master of Letters Russian Studies

Programme Requirements

Russian Studies - MLitt
120 credits from Module List: RU5011, RU5014, ML5001 - ML5002, ML5004 **and** RU5099 (60 credits)

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

RU5011 New Approaches to the Russian Literary Canon (40)					
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	
Planned timetable:	To be arranged.				
Combining a theoretical framework with a number of case studies,this module will explore how the 'Russian literary canon' has been constructed over the past two hundred years. Students will have the opportunity to study a number of works by Russian writers now considered 'canonical' (e.g. Aleksandr Pushkin, Fedor Dostoevsky, Andrei Platonov, Liudmila Ulitskaia), in depth as well as to consider texts that have fallen outside the privileged field of the 'literary', whether for reasons of production, reception, distribution, or promotion. In addition, students will be encouraged to consider how various institutions create and perpetuate notions of canonicity. This module will be taught jointly by members of the Russian Department and will draw on their fields of expertise. It will also take into account the backgrounds of enrolled students. Students taking the module as part of the MLitt in Russian Studies will be expected to complete readings in the original.					
Programme module type:	Compulsory for Russian Studies Postgraduate Programme. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for other MLitt students outside Modern Languages, including the MLitt in Central and East European Studies, with permission of both Schools.				
Anti-requisite(s):	RU5013				
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr C Whitehead				
Module teaching staff:	various				

RU5014 Specialised Research in Russian Studies

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module offers students the opportunity to draw on the expertise of the Department of Russian in order to explore a topic of their choice in depth. Potential subjects of study include: the English Novel in Russia; Issues in Russian Cultural Memory; Narratology and the Short Story; Russian Crime Fiction; Russian Romantic Prose; Russian and Polish Modernism; Russian Formalism in context; the Soviet Writing Self; Socialist Realism Inside and Out; Andrei Platonov; Race and Ethnicity in Russian and Russophone Literature; Russian Literary Peripheries; and Russian Cinema in the Putin Era. Students taking the module as part of the MLitt in Russian Studies will be expected to complete readings in the original.

Programme module type:	Compulsory for Russian Studies Postgraduate Programme.
	Optional for Comparative Literature, Cultural Identity Studies, and Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages, including the MLitt in Central and East European Studies, with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Seminars and occasional lectures.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Finer
Module teaching staff:	various

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes.
	Optional for German and Comparative Literature Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5002 Literary and Cultural Theory (2)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2	

Planned timetable:	To be arranged.

This module and its 'partner' module ML5001 seek(s) to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Nietzsche; Gramsci; Sartre; reader response theory; Foucault; Barthes; narratology; affect theory; ecocriticism.

Programme module type:	Compulsory for French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Cultural Identity Studies Postgraduate Programmes.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2	

Planned timetable:	To be arranged.

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes.
	Optional for Crossways in Cultural Narratives Postgraduate Programme.
	Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

RU5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**		Whole Year
Planned timetable:	At times to be arranged with the supervisor.				

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Russian Studies MLitt Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Dissertation = 100%
Module coordinator:	TBC

Master of Letters Spanish and Latin American Studies

Programme Requirements

Spanish and Latin American Studies - MLitt
120 credits from Module List: SP5011, SP5014, ML5001 - ML5002, ML5004 **and** SP5099 (60 credits)

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

SP5011 Patterns in Hispanic Literature and Film (40)					
SCOTCAT Credits:	40	SCQF Level 11	**Semester:**	1	
Planned timetable:	TBC				
The module is a high-level introduction to research areas of Hispanic literature and film. The approach is through "national themes", which may vary from year to year, traceable within Spanish and Spanish American culture. One such theme is the journey, a subject associated with some of the greatest texts in Spanish, such as Poema de Mio Cid, a story of reconquest and honour retrieval set at the start of Spain and the Castilian language; Don Quijote, a journey of self-realisation in the face of modernity; or Pedro Páramo, a pilgrimage to the personal roots of the protagonist as well as of Mexico. Relevant texts and films illustrating the given theme will be chosen in line with staff expertise.					
Programme module type:	Compulsory for Spanish and Latin American Studies Postgraduate Programme. Optional for Crossways in Cultural Narratives Postgraduate Programmes. Optional for other MLitt students outside Modern Languages with permission of both Schools.				
Anti-requisite(s):	SP5013				
Learning and teaching methods and delivery:	**Weekly contact**: Seminars/tutorials and occasional lectures.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr C O'Leary				
Module teaching staff:	various				

SP5014 Specialised Research in Spanish and/or Latin American Studies

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

The module offers students the opportunity to draw on expertise in the Department of Spanish for the exploration of a relevant topic in some depth. Potential subjects of study could include, for example, the work of a single author such as Juan Carlos Onetti, Carmen Martin Gaite or Jorge Luis Borges, or topics such as Spanish cinema, Golden Age theatre, or the representation of the city in Latin American film, art and texts. Teaching and learning will proceed on the basis of a series of seminars and an agreed programme of readings.

Programme module type:	Compulsory for Spanish and Latin American Studies Postgraduate Programme. Optional for Comparative Literature, Cultural Identity Studies and Crossways in Cultural Narratives Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Fortnightly tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C O'Leary
Module teaching staff:	various

ML5001 Literary and Cultural Theory (1)

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module and its partner module ML5002 seek to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Aristotle; Kant; Marxist theory; psychoanalytic theory; Benjamin; Adorno; structuralism, deconstruction and poststructuralism; feminist and queer theory; Fanon, Spivak and Bhabha; the posthuman.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies, Crossways in Cultural Narratives Postgraduate Programmes. Optional for German and Comparative Literature Postgraduate Programme. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: Lecture/seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr C Whitehead

ML5002 Literary and Cultural Theory (2)

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module and its 'partner' module ML5001 seek(s) to provide the kind of research training now regarded as indispensable for all postgraduates by exploring a range of literary and cultural theories through which texts of all sorts may be conceptualised, criticised and analysed. We will study a broad chronological and national range of seminal thinkers and theories, which might typically incude: Nietzsche; Gramsci; Sartre; reader response theory; Foucault; Barthes; narratology; affect theory; ecocriticism.

Programme module type:	Compulsory for French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes. Optional for Cultural Identity Studies Postgraduate Programmes. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

ML5004 Research and Professional Skills

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module introduces students to a range of skills which are essential to advanced researchers and key to many other non-academic workplaces. We will focus on analytic and critical skills (for instance writing abstracts; critically reviewing articles and research seminar presentations; producing a research poster); oral skills (presentations; asking questions in research seminars); group work (planning a conference); IT research skills. The skills sessions will be tailored to suit modern linguists and comparatists. Seminar preparation and coursework will be directly linked to individual students' own research interests. First year PhD students are invited to audit some part of the programme, adding a valuable component of peer input to the module.

Programme module type:	Compulsory for Comparative Literature, Cultural Identity Studies, French Studies, German Studies, Italian Studies, Middle Eastern Literary and Cultural Studies, Russian Studies, Spanish and Latin American Studies Postgraduate Programmes. Optional for Crossways in Cultural Narratives Postgraduate Programme. Optional for other MLitt students outside Modern Languages with permission of both Schools.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours (seminars and practical classes)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof W Fowler
Module teaching staff:	various

SP5099 Dissertation for MLitt Programme/s

SCOTCAT Credits:	60	SCQF Level 11	Semester:	Whole Year

Planned timetable:	At times to be arranged with the supervisor.

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Spanish and Latin American Studies MLitt Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision to be arranged with supervisor.
Assessment pattern:	Dissertation = 100%
Module coordinator:	Dr C O'Leary
Module teaching staff:	various

Department of Philosophy

Taught Programmes

Graduate Diploma (Conversion):

Philosophy

MLitt:

Epistemology, Mind and Language
History of Philosophy
Logic and Metaphysics
Moral, Political and Legal Philosophy
Philosophy

MPhil:

Philosophy

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Masters in Epistemology, Mind and Language

Programme Requirements

Epistemology, Mind and Language - MLitt
60 credits from Module List: PY5101 - PY5103 **and** 60 credits from Module List: PY5205, PY5207 - PY5208, PY5210, PY5212, PY5214, PY5308, PY5310, PY5324, PY5402 - PY5403 PY5099 (60 credits) **Further requirements** Choose 180 credits in academic year **Other modules approved by the MLitt Convenor outwith the range (PY5205, PY5207 - PY5208, PY5210, PY5212, PY5214, PY5308, PY5310, PY5324, PY5402 - PY5403) may also be available**

MPhil:
120 credits as for Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

PY5101 Current Issues in Philosophy 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Mon (at the University of Stirling)			

This module, together with PY5102 Current Issues II in semester 2, covers recent work in four central areas of philosophy, each of them in a section of 11 hours. The four areas are Epistemology, Ethics, Philosophy of Language and Philosophy of Mind.

Epistemology and Ethics will be covered in PY5101, Philosophy of Language and Philosophy Mind will be covered in PY5102.

The Epistemology section will include topics from among the following: definition of knowledge; tracking and reliability conditions for knowledge; modal requirements on knowledge (safety and sensitivity); scepticism, contextualism and closure; peer-disagreement.

The Ethics section will include topics from among the following: the relation between morality, human nature and the diversity of human practices and societies; what the concept of rights adds to a morality of duties, goals and reasons; double effect and the moral significance of intention; questions in meta-ethics about the supervenience of the normative on non-normative facts.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr R Cruft and Dr S Roca Royes

PY5102 Current Issues in Philosophy 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.0 pm Wed			

This module continues the critical survey of recent work in philosophy begun in PY5101. PY5102 covers Philosophy of Mind and Philosophy of Language as main components.

The Philosophy of Mind section will include some of the following topics: the relation between the mental and the physical; mental causation; consciousness; rationalizing explanation; the normative dimension of mentality.

The Philosophy of Language section will include topics from among the following: how words come to have content, the relation between use, meaning and saying, the relation between meaning, truth, and reference.

Programme module type:	Compulsory for Epistemology, History of Philosophy, Logic and Metaphysics, Mind and Language, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Ball and Dr S Prosser

PY5103 Research Methods

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 pm - 4.30 pm Mon (at the University of Stirling)			

The Research Methods module is a core module for all students taking the Graduate Diploma or MLitt programme. The module aims to foster the range of skills required for independent research in philosophy. These skills run from the most concretely practical, such as knowledge of the main research resources and how to access them, to the most abstract, such as the ability to uncover the background and context of a specific issue (how it originated, what framework is presumed in a particular author's treatment of it, what other ways of thinking of the issue might be available, what literature is relevant to it, and so forth) in a way that allows one to develop an independent conception of how the issue is best addressed.

While these are general skills that will be important in your work in any branch of philosophy, they can be developed only in application to some substantive philosophical position or issues. For that reason, the module is run as a book seminar; weekly meetings will involve discussion introduced by student presentations on issues drawn from or connected with the chosen book.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100% (Research Proposal - 33%, 4,000 Word Essay - 67%)
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr P Ebert

PY5099 Dissertation for MLitt Programme

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by mid-August.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	None - individual supervision

Optional modules:

PY5205 Origins and History of Analytic Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			

The object of this module is to provide an introduction to central themes in the work of some of the founding figures of the analytic tradition in the late nineteenth and early twentieth century. The primary focus of the module will be on developments in logic and its philosophy initiated in Frege's work and continued in Cambridge by Russell, the early Wittgenstein, and Ramsey.

Programme module type:	Optional for History of Philosophy, or Logic and Metaphysics, or Epistemology, Mind & Language, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P Sullivan

PY5310 Philosophy of Mind

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

The module will look at the philosophical dimensions of a number of debates that occur at the intersection between philosophy, scientific psychology and cognitive science. Particular attention will be paid to relating these debates to more traditional problems in metaphysics, epistemology and philosophy of mind.

Programme module type:	Optional for Epsitemology, Mind and Language, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof M Wheeler

PY5324 Philosophy of Logic

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

This module covers foundational issues in the philosophy of logic. Key questions include: 'Is there a correct logic for natural language?', 'Does indeterminacy demand a revision of classical logic?', 'Is the world precise or vague?'.

Programme module type:	Optional for Epistemology, Mind and Language, or Logic and Metaphysics, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Scharp

PY5403 Intuitions and Philosophical Methodology

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Thu			

In this module we will address a range of issues concerning philosophical methodology and the use of intuitions in philosophy. Topics will include: the nature of intuition; how intuitions are and should be used within philosophy; positive accounts of intuition (rationalist, phenomenalist, naturalistic, conceptualist, eliminativist); skeptical challenges to the use of intuitions (from calibration, disagreement, experimental philosophy results).

Programme module type:	Optional for Epistemology, Mind and Language, or Philosophy Postgraduate Taught Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Brown and Dr A Etinson

Masters in History of Philosophy

Programme Requirements

History of Philosophy - MLitt
60 credits from Module List: PY5101 - PY5103 **and** 60 credits from Module List: PY5201 - PY5205, PY5209, PY5213 - PY5214, PY5320, PY5326 PY5099 (60 credits) **Further requirements** Choose 180 credits in academic year **Other modules approved by the MLitt Convenor outwith the range (PY5201 - PY5205, PY5209, PY5213 - PY5214, PY5320, PY5326) may also be available**

MPhil:
120 credits as for Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

PY5101 Current Issues in Philosophy 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Mon (at the University of Stirling)			
This module, together with PY5102 Current Issues II in semester 2, covers recent work in four central areas of philosophy, each of them in a section of 11 hours. The four areas are Epistemology, Ethics, Philosophy of Language and Philosophy of Mind. Epistemology and Ethics will be covered in PY5101, Philosophy of Language and Philosophy Mind will be covered in PY5102. The Epistemology section will include topics from among the following: definition of knowledge; tracking and reliability conditions for knowledge; modal requirements on knowledge (safety and sensitivity); scepticism, contextualism and closure; peer-disagreement. The Ethics section will include topics from among the following: the relation between morality, human nature and the diversity of human practices and societies; what the concept of rights adds to a morality of duties, goals and reasons; double effect and the moral significance of intention; questions in meta-ethics about the supervenience of the normative on non-normative facts.				
Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.			
Assessment pattern:	Coursework = 100%			
Additional information from School:	This class will take place at the University of Stirling			
Module coordinator:	Dr R Cruft and Dr S Roca Royes			

PY5102 Current Issues in Philosophy 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.0 pm Wed			

This module continues the critical survey of recent work in philosophy begun in PY5101. PY5102 covers Philosophy of Mind and Philosophy of Language as main components.

The Philosophy of Mind section will include some of the following topics: the relation between the mental and the physical; mental causation; consciousness; rationalizing explanation; the normative dimension of mentality.

The Philosophy of Language section will include topics from among the following: how words come to have content, the relation between use, meaning and saying, the relation between meaning, truth, and reference.

Programme module type:	Compulsory for Epistemology, History of Philosophy, Logic and Metaphysics, Mind and Language, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Ball and Dr S Prosser

PY5103 Research Methods

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 pm - 4.30 pm Mon (at the University of Stirling)			

The Research Methods module is a core module for all students taking the Graduate Diploma or MLitt programme. The module aims to foster the range of skills required for independent research in philosophy. These skills run from the most concretely practical, such as knowledge of the main research resources and how to access them, to the most abstract, such as the ability to uncover the background and context of a specific issue (how it originated, what framework is presumed in a particular author's treatment of it, what other ways of thinking of the issue might be available, what literature is relevant to it, and so forth) in a way that allows one to develop an independent conception of how the issue is best addressed.

While these are general skills that will be important in your work in any branch of philosophy, they can be developed only in application to some substantive philosophical position or issues. For that reason, the module is run as a book seminar; weekly meetings will involve discussion introduced by student presentations on issues drawn from or connected with the chosen book.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100% (Research Proposal - 33%, 4,000 Word Essay - 67%)
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr P Ebert

PY5099 Dissertation for MLitt Programme

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by mid-August.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	None - individual supervision

Optional modules:

PY5201 Classical Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Thu			

The module will address topics in ancient metaphysics and ethics concentrating on selected readings from the works of Plato or Aristotle. The module will investigate Aristotle's notion of motion and change and how motion and change relate to different understandings of infinity and place/space. The readings will be primarily from Aristotle's Physics and Metaphysics.

Programme module type:	Optional for History of Philosophy, or Logic & Metaphysics or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr B Sattler
Module teaching staff:	Dr B Sattler and Prof S Broadie

PY5203 Kant

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will focus on Kant's critical philosophy. The primary text will be one of his three Critiques, and it may include consideration of themes in Kant's political philosophy, philosophy of religion or philosophy of history. The Cambridge translations are recommended.

Programme module type:	Optional for History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Timmermann
Module teaching staff:	Prof J Timmermann

PY5205 Origins and History of Analytic Philosophy				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			
The object of this module is to provide an introduction to central themes in the work of some of the founding figures of the analytic tradition in the late nineteenth and early twentieth century. The primary focus of the module will be on developments in logic and its philosophy initiated in Frege's work and continued in Cambridge by Russell, the early Wittgenstein, and Ramsey.				
Programme module type:	Optional for History of Philosophy, or Logic and Metaphysics, or Epistemology, Mind & Language, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof P Sullivan			

PY5213 Texts in the History of Political Philosophy				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Thu			
In this module a classic text from the history of philosophy will be studied in detail. The goal will be to situate the text in its historical context, to understand it in its relation to other important works by the same author, and to consider the significance of objections to the text made by the author's contemporaries and by more recent political philosophers. Examples of texts that might be studied include, but are not limited to: Plato's Republic; Aristotle's Politics; Augustine's City of God; Hobbes's Leviathan; Locke's Two Treatises of Government; Rousseau's Social Contract; The Federalist Papers; Burke's Reflections on the Revolution in France; Kant's Doctrine of Right; Hegel's Philosophy of Right; Mill's On Liberty. The module will concentrate on identifying the author's intentions in the text in question, but not to the exclusion of the determining what resources the text offers to political philosophy today.				
Programme module type:	Optional for History of Philosophy, or Moral, Political & Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.			
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 11 weeks)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Harris			
Module teaching staff:	Prof J Harris and Dr A Douglas			

PY5214 Wittgenstein				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			
This module will examine the work of one of history's great philosopher's, Ludwig Wittgenstein. Wittgenstein's two main texts, Tractatus Logico-Philosophicus and Philosophical Investigations will both be studied, focusing in both cases on Wittgenstein's conceptions of language, thought and reality. The module will involve, of course, questions of exegesis, but also questions of philosophical truth: Wittgenstein will be assumed throughout to be a valuable resource for our own philosophizing, and not merely a figure of historical interest.				
Programme module type:	Optional for Philosophy, History of Philosophy, Logic and Metaphysics and Epistemology, Mind and Language.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture x 11 weeks			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Timmermann			

Masters in Logic and Metaphysics

Programme Requirements

Logic and Metaphysics - MLitt
60 credits from Module List: PY5101 - PY5103 **and** 60 credits from Module List: PY5201, PY5205, PY5210, PY5212, PY5214, PY5301 - PY5302, PY5306, PY5324 - PY5325, PY5401, PY5503 **and** PY5099 (60 credits) **Further requirements** Choose 180 credits in academic year **Other modules approved by the MLitt Convenor outwith the range (PY5201, PY5205, PY5210, PY5212, PY5214, PY5301 - PY5302, PY5306, PY5324 - PY5325, PY5401, PY5503) may also be available**

MPhil:
120 credits as for Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

PY5101 Current Issues in Philosophy 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Mon (at the University of Stirling)			

This module, together with PY5102 Current Issues II in semester 2, covers recent work in four central areas of philosophy, each of them in a section of 11 hours. The four areas are Epistemology, Ethics, Philosophy of Language and Philosophy of Mind.

Epistemology and Ethics will be covered in PY5101, Philosophy of Language and Philosophy Mind will be covered in PY5102.

The Epistemology section will include topics from among the following: definition of knowledge; tracking and reliability conditions for knowledge; modal requirements on knowledge (safety and sensitivity); scepticism, contextualism and closure; peer-disagreement.

The Ethics section will include topics from among the following: the relation between morality, human nature and the diversity of human practices and societies; what the concept of rights adds to a morality of duties, goals and reasons; double effect and the moral significance of intention; questions in meta-ethics about the supervenience of the normative on non-normative facts.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr R Cruft and Dr S Roca Royes

PY5102 Current Issues in Philosophy 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.0 pm Wed			

This module continues the critical survey of recent work in philosophy begun in PY5101. PY5102 covers Philosophy of Mind and Philosophy of Language as main components.

The Philosophy of Mind section will include some of the following topics: the relation between the mental and the physical; mental causation; consciousness; rationalizing explanation; the normative dimension of mentality.

The Philosophy of Language section will include topics from among the following: how words come to have content, the relation between use, meaning and saying, the relation between meaning, truth, and reference.

Programme module type:	Compulsory for Epistemology, History of Philosophy, Logic and Metaphysics, Mind and Language, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Ball and Dr S Prosser

PY5103 Research Methods

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 pm - 4.30 pm Mon (at the University of Stirling)			

The Research Methods module is a core module for all students taking the Graduate Diploma or MLitt programme. The module aims to foster the range of skills required for independent research in philosophy. These skills run from the most concretely practical, such as knowledge of the main research resources and how to access them, to the most abstract, such as the ability to uncover the background and context of a specific issue (how it originated, what framework is presumed in a particular author's treatment of it, what other ways of thinking of the issue might be available, what literature is relevant to it, and so forth) in a way that allows one to develop an independent conception of how the issue is best addressed.

While these are general skills that will be important in your work in any branch of philosophy, they can be developed only in application to some substantive philosophical position or issues. For that reason, the module is run as a book seminar; weekly meetings will involve discussion introduced by student presentations on issues drawn from or connected with the chosen book.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100% (Research Proposal - 33%, 4,000 Word Essay - 67%)
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr P Ebert

PY5099 Dissertation for MLitt Programme

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by mid-August.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	None - individual supervision

Optional modules:

PY5201 Classical Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Thu			

The module will address topics in ancient metaphysics and ethics concentrating on selected readings from the works of Plato or Aristotle. The module will investigate Aristotle's notion of motion and change and how motion and change relate to different understandings of infinity and place/space. The readings will be primarily from Aristotle's Physics and Metaphysics.

Programme module type:	Optional for History of Philosophy, or Logic & Metaphysics or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr B Sattler
Module teaching staff:	Dr B Sattler and Prof S Broadie

PY5205 Origins and History of Analytic Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			

The object of this module is to provide an introduction to central themes in the work of some of the founding figures of the analytic tradition in the late nineteenth and early twentieth century. The primary focus of the module will be on developments in logic and its philosophy initiated in Frege's work and continued in Cambridge by Russell, the early Wittgenstein, and Ramsey.

Programme module type:	Optional for History of Philosophy, or Logic and Metaphysics, or Epistemology, Mind & Language, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P Sullivan

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PY5214 Wittgenstein

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

This module will examine the work of one of history's great philosopher's, Ludwig Wittgenstein. Wittgenstein's two main texts, Tractatus Logico-Philosophicus and Philosophical Investigations will both be studied, focusing in both cases on Wittgenstein's conceptions of language, thought and reality. The module will involve, of course, questions of exegesis, but also questions of philosophical truth: Wittgenstein will be assumed throughout to be a valuable resource for our own philosophizing, and not merely a figure of historical interest.

Programme module type:	Optional for Philosophy, History of Philosophy, Logic and Metaphysics and Epistemology, Mind and Language.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture x 11 weeks
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Timmermann

PY5302 Advanced Logic B: Classical Metatheory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module begins with elementary aspects of the theory of cardinality, concentrating on equinumerosity and denumerability. The next topic is computability, focusing on two apparently quite different characterisations of this notion: computability by Turing machines and recursive functions. Fairly complete proofs of their equivalence are given. (Ultimately, we need this notion to give exact sense to the notion of a formal system.) This material serves as background to the remainder of the module which establishes the famous limitative results of Gödel (incompleteness of arithmetic), Tarski (non-definability of arithmetic truth), and Church (undecidability of first-order logic). To obtain these results we must show that the recursive functions are representable in a formal theory of the arithmetic of the natural numbers.

Programme module type:	Optional for Logic and Metaphysics, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P Milne

PY5324 Philosophy of Logic

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

This module covers foundational issues in the philosophy of logic. Key questions include: 'Is there a correct logic for natural language?', 'Does indeterminacy demand a revision of classical logic?', 'Is the world precise or vague?'.

Programme module type:	Optional for Epistemology, Mind and Language, or Logic and Metaphysics, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Scharp

Masters in Moral, Political and Legal Philosophy

Programme Requirements

Moral, Political and Legal Philosophy - MLitt
60 credits from Module List: PY5101 - PY5103 **and**   60 credits from Module List: PY5202 - PY5204, PY5209, PY5312, PY5314 -PY5315, PY5318 -PY5319   PY5099 (60 credits)   **Further requirements**   Choose 180 credits in academic year   **Other modules approved by the MLitt Convenor outwith the range (PY5202 - PY5204, PY5209, PY5312, PY5314 -PY5315, PY5318 -PY5319) may also be available**

MPhil:

120 credits as for Taught Element plus a thesis of not more than 40,000 words

Compulsory modules:

PY5101 Current Issues in Philosophy 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Mon (at the University of Stirling)			

This module, together with PY5102 Current Issues II in semester 2, covers recent work in four central areas of philosophy, each of them in a section of 11 hours. The four areas are Epistemology, Ethics, Philosophy of Language and Philosophy of Mind.

Epistemology and Ethics will be covered in PY5101, Philosophy of Language and Philosophy Mind will be covered in PY5102.

The Epistemology section will include topics from among the following: definition of knowledge; tracking and reliability conditions for knowledge; modal requirements on knowledge (safety and sensitivity); scepticism, contextualism and closure; peer-disagreement.

The Ethics section will include topics from among the following: the relation between morality, human nature and the diversity of human practices and societies; what the concept of rights adds to a morality of duties, goals and reasons; double effect and the moral significance of intention; questions in meta-ethics about the supervenience of the normative on non-normative facts.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr R Cruft and Dr S Roca Royes

PY5102 Current Issues in Philosophy 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.0 pm Wed			

This module continues the critical survey of recent work in philosophy begun in PY5101. PY5102 covers Philosophy of Mind and Philosophy of Language as main components.

The Philosophy of Mind section will include some of the following topics: the relation between the mental and the physical; mental causation; consciousness; rationalizing explanation; the normative dimension of mentality.

The Philosophy of Language section will include topics from among the following: how words come to have content, the relation between use, meaning and saying, the relation between meaning, truth, and reference.

Programme module type:	Compulsory for Epistemology, History of Philosophy, Logic and Metaphysics, Mind and Language, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Ball and Dr S Prosser

PY5103 Research Methods

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 pm - 4.30 pm Mon (at the University of Stirling)			

The Research Methods module is a core module for all students taking the Graduate Diploma or MLitt programme. The module aims to foster the range of skills required for independent research in philosophy. These skills run from the most concretely practical, such as knowledge of the main research resources and how to access them, to the most abstract, such as the ability to uncover the background and context of a specific issue (how it originated, what framework is presumed in a particular author's treatment of it, what other ways of thinking of the issue might be available, what literature is relevant to it, and so forth) in a way that allows one to develop an independent conception of how the issue is best addressed.

While these are general skills that will be important in your work in any branch of philosophy, they can be developed only in application to some substantive philosophical position or issues. For that reason, the module is run as a book seminar; weekly meetings will involve discussion introduced by student presentations on issues drawn from or connected with the chosen book.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100% (Research Proposal - 33%, 4,000 Word Essay - 67%)
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr P Ebert

PY5099 Dissertation for MLitt Programme				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			
Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by mid-August.				
Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
Assessment pattern:	Coursework (Dissertation) = 100%			
Module coordinator:	None - individual supervision			

Optional modules:

PY5203 Kant				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module will focus on Kant's critical philosophy. The primary text will be one of his three Critiques, and it may include consideration of themes in Kant's political philosophy, philosophy of religion or philosophy of history. The Cambridge translations are recommended.				
Programme module type:	Optional for History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof J Timmermann			

PY5312 Aesthetics				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 pm - 5.00 pm Tue and 3.00 pm - 5.00 pm Thu			
This module will consider a number of philosophical questions that arise from reflection on the creation, understanding and evaluation of works of art. Topics to be covered may include the nature of art and the aesthetic, the logic of aesthetic judgement, aesthetic value, interpretation and appreciation.				
Programme module type:	Optional for Moral, Political and Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor..			
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof B Gaut			

PY5315 Philosophy of Law

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Mon			

This module covers the relationship between morality and the law, while also attending to whether the various understandings of that relationship are compatible with classic political principles such as the harm principle and the principle of liberal neutrality. It examines the question of whether the law generates moral reasons and whether it should be used to enforce morality, with this latter question being discussed both in the abstract and with respect to three case-studies: exploitation, coercion and blackmail. No prior exposure to philosophy of law is presumed.

Programme module type:	Optional for Moral, Political and Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr B Sachs

PY5318 Political Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	200 pm - 4.00 pm Mon			

This module will focus on liberalism and its critics. We will examine liberalism's central features and explore the variety of liberal theories (from minimal-state 'classical liberalism' to 'welfare capitalism'). Criticisms of liberalism take many forms, and initially we shall investigate the contemporary communitarian critique of liberalism. If time permits we may also look at some feminist theories which are critical of both liberalism and communitarianism.

Programme module type:	Optional for Moral, Political and Legal Philosophy or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Ashford and Dr A Etinson

PY5319 Topics in Recent Moral Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Thu			

This module aims to provide in-depth critical discussion of selected work in ethics from the last five years or so. Topics will be chosen in consultation with students. The module may range into meta-ethics as well as normative moral theory and will take the form of seminars with detailed discussion of a selected book or series of papers.

Programme module type:	Optional for Moral, Political and Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Mulgan and Dr T Pummer

Masters in Philosophy

Programme Requirements

Philosophy - MLitt
60 credits from Module List: PY5101 - PY5103 **and** 60 credits from Module List: PY5201 - PY5502 **and** PY5099 (60 credits) **Further requirements** Choose 180 credits in academic year

MPhil:
120 credits as for the Taught Element plus a thesis of not more than 40,000 words.

Compulsory modules:

PY5101 Current Issues in Philosophy 1				
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Mon (at the University of Stirling)			

This module, together with PY5102 Current Issues II in semester 2, covers recent work in four central areas of philosophy, each of them in a section of 11 hours. The four areas are Epistemology, Ethics, Philosophy of Language and Philosophy of Mind.	
Epistemology and Ethics will be covered in PY5101, Philosophy of Language and Philosophy Mind will be covered in PY5102.	
The Epistemology section will include topics from among the following: definition of knowledge; tracking and reliability conditions for knowledge; modal requirements on knowledge (safety and sensitivity); scepticism, contextualism and closure; peer-disagreement.	
The Ethics section will include topics from among the following: the relation between morality, human nature and the diversity of human practices and societies; what the concept of rights adds to a morality of duties, goals and reasons; double effect and the moral significance of intention; questions in meta-ethics about the supervenience of the normative on non-normative facts.	
Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr R Cruft and Dr S Roca Royes

PY5102 Current Issues in Philosophy 2

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.0 pm Wed			

This module continues the critical survey of recent work in philosophy begun in PY5101. PY5102 covers Philosophy of Mind and Philosophy of Language as main components.

The Philosophy of Mind section will include some of the following topics: the relation between the mental and the physical; mental causation; consciousness; rationalizing explanation; the normative dimension of mentality.

The Philosophy of Language section will include topics from among the following: how words come to have content, the relation between use, meaning and saying, the relation between meaning, truth, and reference.

Programme module type:	Compulsory for Epistemology, History of Philosophy, Logic and Metaphysics, Mind and Language, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Ball and Dr S Prosser

PY5103 Research Methods

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	3.00 pm - 4.30 pm Mon (at the University of Stirling)			

The Research Methods module is a core module for all students taking the Graduate Diploma or MLitt programme. The module aims to foster the range of skills required for independent research in philosophy. These skills run from the most concretely practical, such as knowledge of the main research resources and how to access them, to the most abstract, such as the ability to uncover the background and context of a specific issue (how it originated, what framework is presumed in a particular author's treatment of it, what other ways of thinking of the issue might be available, what literature is relevant to it, and so forth) in a way that allows one to develop an independent conception of how the issue is best addressed.

While these are general skills that will be important in your work in any branch of philosophy, they can be developed only in application to some substantive philosophical position or issues. For that reason, the module is run as a book seminar; weekly meetings will involve discussion introduced by student presentations on issues drawn from or connected with the chosen book.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100% (Research Proposal - 33%, 4,000 Word Essay - 67%)
Additional information from School:	This class will take place at the University of Stirling
Module coordinator:	Dr P Ebert

PY5099 Dissertation for MLitt Programme

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by mid-August.

Programme module type:	Compulsory for Epistemology, Mind and Language, Logic and Metaphysics, History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	None - individual supervision

Optional modules:

PY5201 Classical Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Thu			

The module will address topics in ancient metaphysics and ethics concentrating on selected readings from the works of Plato or Aristotle. The module will investigate Aristotle's notion of motion and change and how motion and change relate to different understandings of infinity and place/space. The readings will be primarily from Aristotle's Physics and Metaphysics.

Programme module type:	Optional for History of Philosophy, or Logic & Metaphysics or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr B Sattler
Module teaching staff:	Dr B Sattler and Prof S Broadie

PY5203 Kant

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module will focus on Kant's critical philosophy. The primary text will be one of his three Critiques, and it may include consideration of themes in Kant's political philosophy, philosophy of religion or philosophy of history. The Cambridge translations are recommended.

Programme module type:	Optional for History of Philosophy, Moral, Political and Legal Philosophy and Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Timmermann

PY5205 Origins and History of Analytic Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			

The object of this module is to provide an introduction to central themes in the work of some of the founding figures of the analytic tradition in the late nineteenth and early twentieth century. The primary focus of the module will be on developments in logic and its philosophy initiated in Frege's work and continued in Cambridge by Russell, the early Wittgenstein, and Ramsey.

Programme module type:	Optional for History of Philosophy, or Logic and Metaphysics, or Epistemology, Mind & Language, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P Sullivan

PY5213 Texts in the History of Political Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Thu			

In this module a classic text from the history of philosophy will be studied in detail. The goal will be to situate the text in its historical context, to understand it in its relation to other important works by the same author, and to consider the significance of objections to the text made by the author's contemporaries and by more recent political philosophers. Examples of texts that might be studied include, but are not limited to: Plato's Republic; Aristotle's Politics; Augustine's City of God; Hobbes's Leviathan; Locke's Two Treatises of Government; Rousseau's Social Contract; The Federalist Papers; Burke's Reflections on the Revolution in France; Kant's Doctrine of Right; Hegel's Philosophy of Right; Mill's On Liberty. The module will concentrate on identifying the author's intentions in the text in question, but not to the exclusion of the determining what resources the text offers to political philosophy today.

Programme module type:	Optional for History of Philosophy, or Moral, Political & Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Harris
Module teaching staff:	Prof J Harris and Dr A Douglas

PY5214 Wittgenstein

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	TBC			

This module will examine the work of one of history's great philosopher's, Ludwig Wittgenstein. Wittgenstein's two main texts, Tractatus Logico-Philosophicus and Philosophical Investigations will both be studied, focusing in both cases on Wittgenstein's conceptions of language, thought and reality. The module will involve, of course, questions of exegesis, but also questions of philosophical truth: Wittgenstein will be assumed throughout to be a valuable resource for our own philosophizing, and not merely a figure of historical interest.

Programme module type:	Optional for Philosophy, History of Philosophy, Logic and Metaphysics and Epistemology, Mind and Language.
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture x 11 weeks
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Timmermann

PY5302 Advanced Logic B: Classical Metatheory

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	9.00 am - 11.00 am Wed			

This module begins with elementary aspects of the theory of cardinality, concentrating on equinumerosity and denumerability. The next topic is computability, focusing on two apparently quite different characterisations of this notion: computability by Turing machines and recursive functions. Fairly complete proofs of their equivalence are given. (Ultimately, we need this notion to give exact sense to the notion of a formal system.) This material serves as background to the remainder of the module which establishes the famous limitative results of Gödel (incompleteness of arithmetic), Tarski (non-definability of arithmetic truth), and Church (undecidability of first-order logic). To obtain these results we must show that the recursive functions are representable in a formal theory of the arithmetic of the natural numbers.

Programme module type:	Optional for Logic and Metaphysics, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P Milne

PY5310 Philosophy of Mind

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	10.00 am - 12.00 noon Tue			

The module will look at the philosophical dimensions of a number of debates that occur at the intersection between philosophy, scientific psychology and cognitive science. Particular attention will be paid to relating these debates to more traditional problems in metaphysics, epistemology and philosophy of mind.

Programme module type:	Optional for Epsitemology, Mind and Language, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof M Wheeler

PY5312 Aesthetics

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	3.00 pm - 5.00 pm Tue and 3.00 pm - 5.00 pm Thu			

This module will consider a number of philosophical questions that arise from reflection on the creation, understanding and evaluation of works of art. Topics to be covered may include the nature of art and the aesthetic, the logic of aesthetic judgement, aesthetic value, interpretation and appreciation.

Programme module type:	Optional for Moral, Political and Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor..
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof B Gaut

PY5315 Philosophy of Law

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Mon			

This module covers the relationship between morality and the law, while also attending to whether the various understandings of that relationship are compatible with classic political principles such as the harm principle and the principle of liberal neutrality. It examines the question of whether the law generates moral reasons and whether it should be used to enforce morality, with this latter question being discussed both in the abstract and with respect to three case-studies: exploitation, coercion and blackmail. No prior exposure to philosophy of law is presumed.

Programme module type:	Optional for Moral, Political and Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr B Sachs

PY5318 Political Philosophy

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2
Planned timetable:	200 pm - 4.00 pm Mon			

This module will focus on liberalism and its critics. We will examine liberalism's central features and explore the variety of liberal theories (from minimal-state 'classical liberalism' to 'welfare capitalism'). Criticisms of liberalism take many forms, and initially we shall investigate the contemporary communitarian critique of liberalism. If time permits we may also look at some feminist theories which are critical of both liberalism and communitarianism.

Programme module type:	Optional for Moral, Political and Legal Philosophy or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Ashford and Dr A Etinson

PY5319 Topics in Recent Moral Theory

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 4.00 pm Thu			

This module aims to provide in-depth critical discussion of selected work in ethics from the last five years or so. Topics will be chosen in consultation with students. The module may range into meta-ethics as well as normative moral theory and will take the form of seminars with detailed discussion of a selected book or series of papers.

Programme module type:	Optional for Moral, Political and Legal Philosophy, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof T Mulgan and Dr T Pummer

PY5324 Philosophy of Logic

SCOTCAT Credits:	20	SCQF Level 11	Semester:	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

This module covers foundational issues in the philosophy of logic. Key questions include: 'Is there a correct logic for natural language?', 'Does indeterminacy demand a revision of classical logic?', 'Is the world precise or vague?'.

Programme module type:	Optional for Epistemology, Mind and Language, or Logic and Metaphysics, or Philosophy Postgraduate Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Scharp

PY5403 Intuitions and Philosophical Methodology

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	2.00 pm - 4.00 pm Thu			

In this module we will address a range of issues concerning philosophical methodology and the use of intuitions in philosophy. Topics will include: the nature of intuition; how intuitions are and should be used within philosophy; positive accounts of intuition (rationalist, phenomenalist, naturalistic, conceptualist, eliminativist); skeptical challenges to the use of intuitions (from calibration, disagreement, experimental philosophy results).

Programme module type:	Optional for Epistemology, Mind and Language, or Philosophy Postgraduate Taught Programmes, or other postgraduate programmes within the Department as approved by the MLitt Convenor.
Learning and teaching methods and delivery:	**Weekly contact**: 2 hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof J Brown and Dr A Etinson

Graduate Diploma Philosophy

Programme Requirements

Philosophy (Conversion Diploma) - Grad Dip
Between 30 and 60 credits from Module List: PY3100, PY3200 **and** Between 60 and 90 credits from Module List: PY4614-PY4615, PY4624, PY4626, PY4634, PY4643-PY4644, PY4646-PY4648, PY4650-PY4651, CL4502 **Further requirements** Must choose 120 credits for the year **A total of 60 credits must be taken in 3000- and 4000-level modules. The remaining credits may be from any 1000- to 4000-Level modules.**

For module details see Honours Philosophy.

School of Physics & Astronomy

Taught Programmes

Master of Science - MSc:

Astrophysics
Photonics and Optoelectronic Devices

Doctor of Engineering - EngD:

Photonics

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Master of Science Astrophysics

Programme Requirements

Astrophysics - MSc
AS5500 (30 credits) **and**   90 credits from Module List: AS4010 - AS4011, AS5001 - AS5003, AS5521 - AS5524, PH5011, PH5023 **and**   AS5599 (60 credits)

Compulsory modules:

AS5500 Research Skills in Astrophysics				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module will provide the basic astrophysical background and will introduce students to the research skills needed for a career in astrophysics. The module consists of a series of introductory lectures and practicals on basic astrophysical concepts, followed by a tutorial-based system to introduce the skills of astrophysical research. These skills include the critical analysis of the scientific literature; presenting research topics and results to a scientific and general audience; a basic computational competence; and undertaking novel research in areas of current astrophysical interest, potentially including science education and public outreach.				
Programme module type:	Compulsory for MSc in Astrophysics			
Learning and teaching methods and delivery:	**Weekly contact**: 15 hours of lectures, 20 hours of seminars and 20 hours of tutorials			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A Weijmans			
Module teaching staff:	Dr A Weijmans, Prof M Jardine, with others			

AS5599 Astrophysics Research Project (MSc)				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	Available only to students on the MSc in Astrophysics.			
The project aims to develop students' skills in searching the appropriate literature, in astrophysical theory or experimental and observational design, the evaluation and interpretation of data, and the presentation of a report. There is no specific syllabus for this module. Students taking the MSc Astrophysics degree select a project from a list of those available and are supervised by a member of the academic staff.				
Programme module type:	Compulsory for MSc in Astrophysics			
Pre-requisite(s):	BSc or equivalent in the physical sciences			
Co-requisite(s):	AS5500			
Learning and teaching methods and delivery:	**Weekly contact**: 1-hour peer group sessions (x 12), 2-hour supervisions (x 12)			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof I Bonnell			
Module teaching staff:	Prof I Bonnell with others			

Optional modules:

AS4010 Extragalactic Astronomy

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	12.00 noon Mon, Tue, Thu (TBC)			

This module introduces the basic elements of extragalactic astronomy. This includes the morphological, structural and spectral properties of elliptical, spiral, quiescent and star-forming galaxies. We study how galaxy populations change from the distant galaxies in the early Universe into those observed in our local neighbourhood, including the coincident growth of super massive black holes at the centres of massive galaxies. Galaxy formation theory is introduced in relation to the growth of structure in a cold-dark matter Universe, and galaxy evolution in regions of high and low density is investigated. The module includes a look at modern instrumentation used in extragalactic astrophysics. Specialist lecturers from within the galaxy evolution research group will provide a direct link between material learnt in lectures and research currently being undertaken at the University of St Andrews.

Programme module type:	Optional for MSc in Physics
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures occasionally replaced by tutorials
Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%
Module coordinator:	Dr V Wild (TBC)
Module teaching staff:	Dr V Wild, Dr A M Weijmans (TBC)

AS4011 The Physics of Nebulae and Stars 1

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	10.00 am Tue, Wed, Thu (TBC)			

This module introduces the physics of astrophysical plasmas, as found in stars and interstellar space, where interactions between matter and radiation play a dominant role. A variety of absorption, emission, and scattering processes are introduced to describe exchanges of energy and momentum, which link up in various contexts to control the state and motion of the matter, to regulate the flow of light through the matter, and to impress fingerprints on the emergent spectrum. The theory is developed in sufficient detail to illustrate how astronomers interpret observed spectra to infer physical properties of astrophysical plasmas. Applications are considered to photo-ionise nebulae, interstellar shocks, nova and supernova shells, accretion discs, quasar-absorption-line clouds, radio synchrotron jets, radio pulsars, and x-ray plasmas. Monte-Carlo computational techniques are introduced to model radiative transfer.

Programme module type:	Optional for MSc in Astrophysics, Optional for MSc in Physics
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures occasionally replaced by whole-group tutorials.
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr K Wood (TBC)
Module teaching staff:	Dr K Wood (TBC)

AS5001 Advanced Data Analysis

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

Planned timetable:	9.00 am Tue, Thu, 10.00 am Mon, 12.00 noon Thu and 3.00 pm - 5.00 pm Tue (Lab) (TBC)

This module develops an understanding of basic concepts and offers practical experience with the techniques of quantitative data analysis. Beginning with fundamental concepts of probability theory and random variables, practical techniques are developed for using quantitative observational data to answer questions and test hypotheses about models of the physical world. The methods are illustrated by applications to the analysis of time series, imaging, spectroscopy, and tomography datasets. Students develop their computer programming skills, acquire a data analysis toolkit, and gain practical experience by analyzing real datasets.

Programme module type:	Optional for Postgraduate programmes in the School.
Pre-requisite(s):	Admission to a taught Postgraduate degree programme in the School.
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures or tutorials and some supervised computer lab sessions
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof K Horne (TBC)
Module teaching staff:	Prof K Horne (TBC)

AS5002 Magnetofluids and Space Plasmas

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1

Planned timetable:	11.00 am Mon, Tue, Thu (TBC)

This module is aimed at both physics and astrophysics students with interests in the physics of plasmas. The interaction of a magnetic field with an ionized gas (or plasma) is fundamental to many problems in astrophysics, solar- terrestrial physics and efforts to harness fusion power using tokamaks. The syllabus comprises: Solar-like magnetic activity on other stars. The basic equations of magneto-hydrodynamics. Stellar coronae: X-ray properties and energetics of coronal loops. Energetics of magnetic field configurations. MHD waves and propagation of information. Solar and stellar dynamos: mean field models. Star formation: properties of magnetic cloud cores, magnetic support. Physics of accretion discs: transport of mass and angular momentum. Accretion on to compact objects and protostars. Rotation and magnetic fields in protostellar discs. Rotation distributions of young solar-type stars. Magnetic braking via a hot, magnetically channelled stellar wind.

Programme module type:	Optional for Postgraduate programmes within the School of Physics & Astronomy.
Pre-requisite(s):	Admission to a taught Postgraduate degree programme
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures or tutorials.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Prof M M Jardine (TBC)
Module teaching staff:	Prof M M Jardine (TBC)

AS5003 Contemporary Astrophysics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Wed, Fri and 3.00 pm Mon (TBC)			
This module will provide an annual survey of the latest, most interesting, developments in astronomy and astrophysics at the research level. Emphasis will be placed upon the application of knowledge and expertise gained by students in their other modules to these current research topics.				
Programme module type:	Optional for Postgraduate programmes in the School.			
Pre-requisite(s):	Substantial astronomy knowledge and skills.			
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures and tutorials			
Assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr H Zhao (TBC)			
Module teaching staff:	Dr A Sicilia-Aguilar, Dr P Rimmer, Dr A Mortier, Dr H Zhao (TBC)			

AS5521 Observational Techniques in Astrophysics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	Semester 1: Labs: 2.00 pm - 5.30 pm on Mon and Thu Semester 2: Lectures: 5.00 pm - 6.00 pm on Monday			
This is a module that provides a complete overview of the practical part of research in observational astronomy. In the laboratory part, students learn how to plan observations with telescopes at the university observatory, followed by data reduction and analysis. Projects in this part include structural analysis of galaxies and photometry of transiting exoplanet candidates. Observations are also secured using a student-built radio telescope to observe low-frequency radio emission from astronomical sources. The lecture part prepares the students for working with large-scale professional facilities and advanced observing techniques. The module is rounded off by hands-on observing training with the James Gregory Telescope in St Andrews and (optional) with telescopes overseas as part of a field trip. Overall, students gain valuable experience in observation, data analysis, astronomical software, observing techniques, report and proposal writing.				
Programme module type:	Optional for MSc in Astrophysics			
Pre-requisite(s):	BSc or equivalent in the physical sciences			
Learning and teaching methods and delivery:	**Weekly contact**: 7-hour practical classes (x 7 weeks), 1-hour Lectures (x 10 weeks), 15 hours of fieldwork.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A Scholz			

AS5522 Stellar Physics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module develops the physics of stellar interiors and atmospheres from the basic equations of stellar structure and radiative transfer concepts developed in Nebulae and Stars I. Topics include: the equation of state that provides pressure support at the high temperatures and densities found in normal and white-dwarf stars; the interaction of radiation with matter, both in terms of radiation-pressure support in super-massive stars and in terms of the role of opacity in controlling the flow of energy from the stellar interior to the surface; the equation of radiative transfer and the effects of local temperatures, pressures and velocity fields on the continuum and line absorption profiles in the emergent spectrum. Computer-aided tutorial exercises illustrate the computational schemes that represent one of the triumphs of late twentieth-century physics, in their ability to predict the observable properties of a star from its radius and luminosity, which in turn are determined by its mass, age and chemical composition.

Programme module type:	Optional for MSc in Astrophysics
Pre-requisite(s):	AS4011 or equivalent from first degree
Co-requisite(s):	AS5500
Learning and teaching methods and delivery:	**Weekly contact**: 3-hours of lectures (x 11 weeks), 1-hour tutorials (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof A Cameron
Module teaching staff:	Prof A Cameron, Dr P Wotike

AS5523 Gravitational Dynamics and Accretion Physics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This theoretical module explores the basics of gravitational dynamics and accretion physics and their application to systems such as circumstellar discs, stellar clusters to galaxies and clusters of galaxies. The module will provide students with the techniques to determine physical properties from observable quantities and to model the dynamics and evolutionary pathways of these systems. Starting from two-body motion and orbits under a central-force law, the module describes the calculation of extended potentials and their associated orbits. The use of the virial theorem and the statistical treatment of large numbers of self-gravitating bodies is then developed with application to stellar systems. Accretion as a source of energy and mass growth will be explored with particular emphasis on models of viscous accretion discs. Applications of these methods are made to several different astrophysical objects including accretion discs in stellar systems , collisions in globular clusters, the growth of super-massive black holes, to the presence of dark matter in the universe.

Programme module type:	Optional for MSc in Astrophysics
Pre-requisite(s):	BSc or equivalent in the physical sciences
Co-requisite(s):	AS5500
Learning and teaching methods and delivery:	**Weekly contact:** 3-hour lectures (x 11 weeks), 48 hours of practical classes, 1-hour tutorials (x 5 weeks)
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof I Bonnell

AS5524 Astrophysical Fluid Dynamics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

Fluid dynamics is the study of all things that 'flow', whether they are liquids or gases. The underlying concepts and techniques taught in this course are of wide ranging use, finding application in such diverse problems as the collision of galaxies, spacecraft re-entry into the Earth's atmosphere, or the structure and stability of fusion plasmas. Closer to home, the behaviour of fluid flows can readily be observed in rivers, on shorelines and in cloud formations. Fluid mechanics describes the types of flows that result from different forces (such as gravity). It explains how (and why) flows become supersonic and when they may become unstable. These basic principles can then be applied to a variety of problems.

In addition to introducing the concepts of fluid dynamics, and describing their application, this course will provide the students with the opportunity to develop the numerical skills required for a computational approach to the problem. This project will account for 20% of the module grade, with the remaining 80% coming from the exam.

Programme module type:	Optional for MSc in Astrophysics
Co-requisite(s):	AS5500
Learning and teaching methods and delivery:	**Weekly contact:** 3 hours of lectures (x 11 weeks), 5 x 1-hour tutorials over the semester
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Prof M Jardine

PH5011 General Relativity

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am Wed, Fri, 3.00 pm Thu (TBC)			

This module covers: inertial frames, gravity, principle of equivalence, curvature of spacetime; basic techniques of tensor analysis; Riemannian spaces, metric tensor, raising and lowering of indices, Christoffel symbols, locally flat coordinates, covariant derivatives, geodesics, curvature tensor, Ricci tensor, Einstein tensor; fundamental postulates of general relativity: spacetime, geodesics, field equations, laws of physics in curved spacetime; distances, time intervals, speeds; reduction of equations of general relativity to Newtonian gravitational equations; Schwarzschild exterior solution, planetary motion, bending of light rays, time delays; observational tests of general relativity; Schwarzschild interior solution, gravitational collapse, black holes.

Programme module type:	Optional for Postgraduate programmes in the School
Pre-requisite(s):	Relevant mathematics and physics
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures or tutorials.
Assessment pattern:	2-hour Written Examination = 100%
Module coordinator:	Dr M Dominik

PH5023 Monte Carlo Radiation Transport Techniques

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	11.00 am Wed, 2.00 pm Tue, Fri (TBC)			

This module introduces the theory and practice behind Monte Carlo radiation transport codes for use in physics, astrophysics, atmospheric physics, and medical physics. Included in the module: recap of basic radiation transfer; techniques for sampling from probability distribution functions; a simple isotropic scattering code; computing the radiation field, pressure, temperature, and ionisation structure; programming skills required to write Monte Carlo codes; code speed-up techniques and parallel computing; three-dimensional codes. The module assessment will be 100% continuous assessment comprising homework questions and small projects where students will write their own and modify existing Monte Carlo codes.

Programme module type:	Optional for Postgraduate programmes in the School.
Pre-requisite(s):	Relevant physics, mathematics and computing
Learning and teaching methods and delivery:	**Weekly contact**: 3 hours of lectures (x 6 weeks), 1-hour tutorials (x 5 weeks), during semester 3 x 3 hour supervised computer lab sessions
Assessment pattern:	Coursework (worksheets = 50%, 3-hour computing test = 25%, 1-hour Class Test = 25%) = 100%
Module coordinator:	Dr K Wood

Master of Science Photonics and Optoelectronic Devices

Programme Requirements

Photonics and Optoelectronic Devices - MSc
105 credits from Module List: PH5180 - PH5182, PH5184-PH5187 15 credits from Module List: PH5015-PH5016, PH5025 PH5177 (60 credits)

www.st-andrews.ac.uk/physics/msc

The primary aim of this twelve-month, full-time programme is to provide specialist postgraduate training in modern optics and semiconductor physics, tailored to the needs of the Photonics industrial sector. The secondary aim is to provide the education required for those wishing to continue in academia on Ph.D. research projects in photonics. There are strong links between our research activities and the teaching of this MSc..

Graduates from the programme will have gained an in-depth understanding of the fundamental properties of optoelectronic materials and practical experience of the technology and operation of a wide range of laser and semiconductor devices. They will additionally have had experience of research, usually in an industrial environment, and have received training in the transferable skills required in such an environment.

The course is organised jointly by the School of Physics & Astronomy at the University of St Andrews and the School of Engineering and Physical Sciences at Heriot-Watt University. Each organisation will act in turn as lead organisation for the course. In 2017/8 the course will be led by St Andrews, and in 2018/9 by Heriot-Watt. Regardless of which institution leads the course, the first semester is spent at St Andrews, and the second semester at Heriot-Watt. For the MSc degree a project is undertaken during the summer months, usually in industry, and is assessed in September.

 [Note that PH5184 - PH5187 are carried out at Heriot-Watt University under their own module numbers.]

Compulsory modules:

PH5180 Laser Physics

SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	1
Planned timetable:	10.00 am Mon, Tue, Wed, Thu (TBC)			

This module presents a description of the main physical concepts upon which an understanding of laser materials, operations, and applications can be based. These concepts include a treatment of light-matter interaction, gain, absorption and refractive index, rate-equation theory of lasers, gain and its saturation, frequency selection and tuning in lasers, transient phenomena, resonator and beam optics, and the principles and techniques of ultrashort pulse generation and measurement.

Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme. Optional for EngD Programme
Pre-requisite(s):	Admission to a Taught Postgraduate programme within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 4 lectures/tutorials each week.
Assessment pattern:	2.5-hour open-notes Examination = 80%, Coursework = 20%
Module coordinator:	Dr B D Sinclair
Module teaching staff:	Dr B Sinclair, Prof C Brown, Dr L O'Faolain

PH5181 Photonics Laboratory 1

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	2.00 pm - 5.30 pm Mon, Tue and Thu			

The photonics teaching laboratory gives training in the experimental photonics, and allows students the opportunity to explore photonics practically in a series of chosen open-ended investigations. Students use their knowledge and skills from the lecture modules, supplemented by additional reading, to investigate relevant photonic effects. Phase I involves work in small groups in introductory areas, then phase II allows primarily individual investigation of topics such as the second harmonic generation, optical parametric oscillation, erbium amplifiers, Nd lasers, optical tweezers, spectroscopy, remote sensing of speed, Brag reflectors, and holography.

Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme and EngD Photonics Programme.
Pre-requisite(s):	Admission to a Taught Postgraduate photonics programme within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 3 x 2.5-hour practicals.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr B D Sinclair
Module teaching staff:	Dr B D Sinclair

PH5182 Displays and Nonlinear Optics

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am Tue, Thu and 3.00 pm Fri (weeks 10 -12)TBC			

The physics of polymers and liquid crystals is covered, showing the way to the use of semi-conducting polymers as light emitters, and the use of liquid crystals in displays and spatial light modulators. The nonlinear optics section of this module describes the physical ideas and application of second and third order nonlinear optics, including phenomena such as harmonic generation, parametric gain, saturated absorption, nonlinear refraction, Raman scattering, and optical solitons. The final section looks at second order nonlinear effects being exploited in optical parametric amplifiers and oscillators in the optical and THz regions.

Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme. Optional for EngD Photonics Programme
Pre-requisite(s):	Admission to a Taught Postgraduate programme within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and occasional tutorials.
Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%
Module coordinator:	Prof I D W Samuel
Module teaching staff:	Prof I Samuel, Dr M Mazilu, Dr C Rae

PH5184 Photonics Experimental Laboratory 2 (B21HL)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on the Photonics and Optoelectronic Devices MSc programme			
Planned timetable:	To be arranged.			

This module is taught at Heriot-Watt University, and forms part of certain taught Master's degrees run collaboratively between St Andrews and Heriot-Watt Universities.

Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme.
Pre-requisite(s):	Admission to the Photonics and Optoelectronics MSc.
Learning and teaching methods and delivery:	**Weekly contact**: At Heriot-Watt University
Assessment pattern:	Coursework = 100%
Module coordinator:	at Heriot-Watt University

PH5185 Semiconductor Optoelectronic Devices (B21OD)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on the Photonics and Optoelectronic Devices MSc programme			
Planned timetable:	To be arranged.			
This module is taught at Heriot-Watt University, and may form part of certain taught Master's degrees run collaboratively between St Andrews and Heriot-Watt Universities.				
Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme.			
Pre-requisite(s):	Admission to the Photonics and Optoelectronic Devices MSc.			
Learning and teaching methods and delivery:	**Weekly contact**: At Heriot-Watt University			
Assessment pattern:	3-hour Written Examination = 100%			
Module coordinator:	at Heriot-Watt University			

PH5186 Modern Optics (B21FM)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on the Photonics and Optoelectronic Devices MSc programme			
Planned timetable:	To be arranged.			
This module is taught at Heriot-Watt University, and may form part of certain taught Master's degrees run collaboratively between St Andrews and Heriot-Watt Universities.				
Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme.			
Pre-requisite(s):	Admission to the Photonics and Optoelectronic Devices MSc			
Learning and teaching methods and delivery:	**Weekly contact**: At Heriot-Watt University			
Assessment pattern:	3-hour Written Examination = 100%			
Module coordinator:	at Heriot-Watt University			

PH5187 Fibre Optic Communications (B21FC)

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Availability restrictions:	Available only to students on the Photonics and Optioelectronic Devices MSc programme			
Planned timetable:	To be arranged.			
This module is taught at Heriot-Watt University, and may form part of certain taught Master's degrees run collaboratively between St Andrews and Heriot-Watt Universities.				
Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme.			
Pre-requisite(s):	Admission to the Photonics and Optoelectronic Devices MSc.			
Learning and teaching methods and delivery:	**Weekly contact**: At Heriot-Watt University			
Assessment pattern:	3-hour Written Examination = 100%			
Module coordinator:	at Heriot-Watt University			

PH5177 Research Project (POED MSc)

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	This project module is organised and assessed with Heriot Watt as the lead institution in 2017/8 and alternate years thereafter, St Andrews in 2018/9 and alternate years after that. It is available only to those in the Photonics and Optoelectronic Devices MSc programme.			
Planned timetable:	Placement, full time.			
All POED MSc students carry out a 3-month research project, in most cases carried out at a U.K. company. Part-time students who are industry employees may carry out the project at their own company. Students will have completed a literature survey prior to the project, and write a dissertation on the project which is assessed in September.				
Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme.			
Pre-requisite(s):	Satisfactory completion of the taught element of Photonics and Optoelectronic Devices MSc programme.			
Learning and teaching methods and delivery:	**Weekly contact**: About 40 hours a week working on the project, with appropriate levels of supervision			
Assessment pattern:	Dissertation and Oral Examination = 100%			
Module coordinator:	Heriot Watt			

Optional modules:

PH5015 Applications of Quantum Physics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon, Tue, Thu (TBC)			
Quantum physics is one of the most powerful theories in physics yet is at odds with our understanding of reality. In this module we show how laboratories around the world can prepare single atomic particles, ensembles of atoms, light and solid state systems in appropriate quantum states and observe their behaviour. The module includes studies of laser cooling, Bose-Einstein condensation, quantum dots and quantum computing. An emphasis throughout will be on how such quantum systems may actually turn into practical devices in the future. The module will include assessment based on tutorial work and a short presentation on a research topic.				
Programme module type:	Optional for Postgraduate programmes in the School			
Pre-requisite(s):	Relevant physics and mathematics			
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures/tutorials, 1 x 3-hour research lab visit, 3 hours student presentations during the semester.			
Assessment pattern:	2-hour Written Examination = 80%, Coursework (inc Oral presentation- 10%) = 20%			
Module coordinator:	Dr D Cassettari			
Module teaching staff:	Dr D Cassettari, Dr M Mazilu			

PH5016 Biophotonics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am Mon, Wed, Fri (TBC)			

The module will expose students to the exciting opportunities offered by applying photonics methods and technology to biomedical sensing and detection. A rudimentary biological background will be provided where needed. Topics include fluorescence microscopy and assays including time-resolved applications, optical tweezers for cell sorting and DNA manipulation, photodynamic therapy, optogenetics, lab-on-a-chip concepts and bio-MEMS. Two thirds of the module will be taught as lectures, including guest lectures by specialists, with the remaining third consisting of problem-solving exercises, such as writing a specific news piece on a research paper, assessed tutorial sheets and a presentation. A visit to a biomedical research laboratory using various photonics methods will also be arranged.

Programme module type:	Optional forPostgraduate programmes in the School Optional for EngD Photonics Programme
Pre-requisite(s):	Relevant physics and mathematics
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures/tutorials.
Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%
Module coordinator:	Prof C Brown
Module teaching staff:	Prof C Brown, Prof M C Gather, Dr C Penedo-Esteiro

PH5025 Nanophotonics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	TBC			

Nanophotonics deals with structured materials on the nanoscale for the manipulation of light. Photonic crystals and plasmonic metamaterials are hot topics in contemporary photonics, and form part of the School's research programme. The properties of these materials can be designed to a significant extent via their structure. Many of the properties of these nanostructured materials can be understood from their dispersion diagram or optical band-structure, which is a core tool that will be explored in the module. Familiar concepts such as optical waveguides and cavities, multilayer mirrors and interference effects will be used to explain more complex features such as slow light propagation and high Q cavities in photonic crystal waveguides and supercontinuum generation in photonic crystal fibres. Propagating and localized plasmons will be explained and will include the novel effects of super-lensing and advanced phase control in metamaterials.

Programme module type:	Optional for MSc in Photonics and Optoelectronic Devices and EngD in Applied Photonics
Anti-requisite(s):	PH5183
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures/tutorials (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%
Module coordinator:	Dr A Di Falco
Module teaching staff:	Dr A Di Falco, Dr L O'Faolain

Doctor of Engineering in Applied Photonics

http://www.idcphotonics.hw.ac.uk/

The DEng degree in Photonics is a 4-year course involving a blend of specialist postgraduate training in all aspects of photonics, tailored to the needs of the photonics industrial sector, and a significant, challenging and original research project undertaken as a partnership between industry and academia. Each research project provides experience in project management (including financial management) and teamwork as well as the opportunity to gain greater understanding of photonics and the business context in which the research is conducted. A significant proportion of the student's time (typically around 70%) is spent within the sponsoring company.

Graduates from the programme will have gained an in-depth understanding of the fundamental properties of photonic materials and practical experience of the technology and operation of a wide range of photonic devices. They will additionally have had extensive experience of research in an industrial environment and have received training in the transferable skills required in such an environment.

The course is organised jointly by Heriot-Watt, Glasgow, St Andrews, and Strathclyde universities. St Andrews will normally be the location for the start of the course and will provide full time teaching in photonics during the first semester of the first year of the course. Students then have a semester of electronic engineering theory and practice at Glasgow and Strathclyde Universities as additional preparation before embarking on their research. Details at:

http://www.idcphotonics.hw.ac.uk/sites/www.idcphotonics.hw.ac.uk/files/news/CDT%20Applied%20Photonics%20leaflet.pdf

PH5181 Photonics Laboratory is a compulsory module, and students then normally choose 45 credits from PH5015, PH5016, PH5025, PH5180, PH5182. Students also take later in their programme modules amongst those taught by Heriot-Watt, Strathclyde, and Glasgow Universities.

Compulsory module:

PH5181 Photonics Laboratory 1					
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1	
Planned timetable:	2.00 pm - 5.30 pm Mon, Tue and Thu				
The photonics teaching laboratory gives training in the experimental photonics, and allows students the opportunity to explore photonics practically in a series of chosen open-ended investigations. Students use their knowledge and skills from the lecture modules, supplemented by additional reading, to investigate relevant photonic effects. Phase I involves work in small groups in introductory areas, then phase II allows primarily individual investigation of topics such as the second harmonic generation, optical parametric oscillation, erbium amplifiers, Nd lasers, optical tweezers, spectroscopy, remote sensing of speed, Brag reflectors, and holography.					
Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme and EngD Photonics Programme.				
Pre-requisite(s):	Admission to a Taught Postgraduate photonics programme within the School.				
Learning and teaching methods and delivery:	**Weekly contact**: 3 x 2.5-hour practicals.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr B D Sinclair				
Module teaching staff:	Dr B D Sinclair				

Optional modules:

PH5015 Applications of Quantum Physics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	12.00 noon Mon, Tue, Thu (TBC)			

Quantum physics is one of the most powerful theories in physics yet is at odds with our understanding of reality. In this module we show how laboratories around the world can prepare single atomic particles, ensembles of atoms, light and solid state systems in appropriate quantum states and observe their behaviour. The module includes studies of laser cooling, Bose-Einstein condensation, quantum dots and quantum computing. An emphasis throughout will be on how such quantum systems may actually turn into practical devices in the future. The module will include assessment based on tutorial work and a short presentation on a research topic.

Programme module type:	Optional for Postgraduate programmes in the School
Pre-requisite(s):	Relevant physics and mathematics
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures/tutorials, 1 x 3-hour research lab visit, 3 hours student presentations during the semester.
Assessment pattern:	2-hour Written Examination = 80%, Coursework (inc Oral presentation- 10%) = 20%
Module coordinator:	Dr D Cassettari
Module teaching staff:	Dr D Cassettari, Dr M Mazilu

PH5016 Biophotonics

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am Mon, Wed, Fri (TBC)			

The module will expose students to the exciting opportunities offered by applying photonics methods and technology to biomedical sensing and detection. A rudimentary biological background will be provided where needed. Topics include fluorescence microscopy and assays including time-resolved applications, optical tweezers for cell sorting and DNA manipulation, photodynamic therapy, optogenetics, lab-on-a-chip concepts and bio-MEMS. Two thirds of the module will be taught as lectures, including guest lectures by specialists, with the remaining third consisting of problem-solving exercises, such as writing a specific news piece on a research paper, assessed tutorial sheets and a presentation. A visit to a biomedical research laboratory using various photonics methods will also be arranged.

Programme module type:	Optional forPostgraduate programmes in the School Optional for EngD Photonics Programme
Pre-requisite(s):	Relevant physics and mathematics
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures/tutorials.
Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%
Module coordinator:	Prof C Brown
Module teaching staff:	Prof C Brown, Prof M C Gather, Dr C Penedo-Esteiro

PH5025 Nanophotonics

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	TBC			

Nanophotonics deals with structured materials on the nanoscale for the manipulation of light. Photonic crystals and plasmonic metamaterials are hot topics in contemporary photonics, and form part of the School's research programme. The properties of these materials can be designed to a significant extent via their structure. Many of the properties of these nanostructured materials can be understood from their dispersion diagram or optical band-structure, which is a core tool that will be explored in the module. Familiar concepts such as optical waveguides and cavities, multilayer mirrors and interference effects will be used to explain more complex features such as slow light propagation and high Q cavities in photonic crystal waveguides and supercontinuum generation in photonic crystal fibres. Propagating and localized plasmons will be explained and will include the novel effects of super-lensing and advanced phase control in metamaterials.

Programme module type:	Optional for MSc in Photonics and Optoelectronic Devices and EngD in Applied Photonics
Anti-requisite(s):	PH5183
Learning and teaching methods and delivery:	**Weekly contact**: 3 lectures/tutorials (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%
Module coordinator:	Dr A Di Falco
Module teaching staff:	Dr A Di Falco, Dr L O'Faolain

PH5180 Laser Physics

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	10.00 am Mon, Tue, Wed, Thu (TBC)			

This module presents a description of the main physical concepts upon which an understanding of laser materials, operations, and applications can be based. These concepts include a treatment of light-matter interaction, gain, absorption and refractive index, rate-equation theory of lasers, gain and its saturation, frequency selection and tuning in lasers, transient phenomena, resonator and beam optics, and the principles and techniques of ultrashort pulse generation and measurement.

Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme. Optional for EngD Programme
Pre-requisite(s):	Admission to a Taught Postgraduate programme within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 4 lectures/tutorials each week.
Assessment pattern:	2.5-hour open-notes Examination = 80%, Coursework = 20%
Module coordinator:	Dr B D Sinclair
Module teaching staff:	Dr B Sinclair, Prof C Brown, Dr L O'Faolain

PH5182 Displays and Nonlinear Optics

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1

Planned timetable:	9.00 am Tue, Thu and 3.00 pm Fri (weeks 10 -12)TBC

The physics of polymers and liquid crystals is covered, showing the way to the use of semi-conducting polymers as light emitters, and the use of liquid crystals in displays and spatial light modulators. The nonlinear optics section of this module describes the physical ideas and application of second and third order nonlinear optics, including phenomena such as harmonic generation, parametric gain, saturated absorption, nonlinear refraction, Raman scattering, and optical solitons. The final section looks at second order nonlinear effects being exploited in optical parametric amplifiers and oscillators in the optical and THz regions.

Programme module type:	Compulsory for Photonics and Optoelectronic Devices MSc Programme. Optional for EngD Photonics Programme
Pre-requisite(s):	Admission to a Taught Postgraduate programme within the School.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures and occasional tutorials.
Assessment pattern:	2-hour Written Examination = 80%, Coursework = 20%
Module coordinator:	Prof I D W Samuel
Module teaching staff:	Prof I Samuel, Dr M Mazilu, Dr C Rae

School of Psychology & Neuroscience

Taught Programmes

Postgraduate Certificate:

Adults with Learning Disabilities who have Significant and Complex Needs - by Distance Learning
The Psychology of Dementia Care - by Distance Learning

Postgraduate Diploma:
Adults with Learning Disabilities who have Significant and Complex Needs - by Distance Learning

Master of Science - MSc:

Adults with Learning Disabilities who have Significant and Complex Needs - by Distance Learning
Evolutionary and Comparative Psychology:
The Origins of Mind
Psychology (Conversion)
Research Methods in Psychology

Master of Research - MRes:

Neuroscience

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Adults with Learning Disabilities who have Significant and Complex Needs - by Distance Learning

Programme Requirements

Adults with Learning Disabilities who have Significant and Complex Needs- MSc
60 credits from Module List: PS5101 - PS5106 and 60 credits from Module List: PS5401 - PS5406 or 60 credits from Module List: CE5001 - CE5006 and PS5199 (60 credits)

PS5101 Intellectual Disability Research					
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	100 notional hours of learning time (delivered by online distance learning).				

This distance-learning module is one of six in the postgraduate Diploma programme Adults with Learning Disabilities who have Significant and Complex Needs. It introduces students to the core skills necessary for research in the field of Intellectual Disability, including the following:

Unit 1: What kinds of questions can be addressed in ID research?

Unit 2: The practitioner-research

Unit 3: What are the principal paradigms through which questions may be addressed?

Unit 4: Research, evaluation and audit

Unit 5: Theories, concepts and operationalisation

Unit 6: Ethical issues and ethical permission

The module is appropriate for professionally qualified staff who wish to develop research skills with a view to improving their professional practice.

The core text for this module is Robson, C. (2002) Real World Research: A resource for social scientists and practitioner-researchers: 3rd edition. Oxford: Wiley.

Programme module type:	Compulsory for Postgraduate Diploma in Adults with Learning Disabilities who have Significant and Complex Needs.
Pre-requisite(s):	60 credits from CE5001 - CE5006 or PS5401 - PS5406 or 60 credits from an equivalent Postgraduate Certificate in Learning Disabilities
Learning and teaching methods and delivery:	**Weekly contact**: 1 introductory seminar - Teaching materials supplied for distance learning, supported by online materials and accessed via University websites (Moodle), library electronic databases. University tutor support by email and telephone.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Campbell
Module teaching staff:	Dr M Campbell, Prof J Hogg

PS5102 Data Collection and Sampling				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	100 notional hours of learning time (delivered by online distance learning).			

This distance-learning module is one of six in the postgraduate Diploma programme Adults with Learning Disabilities who have Significant and Complex Needs. It introduces students to the core skills necessary for research in the field of Intellectual Disability, including the following:

Unit 1: Quantitative data: types of measurement; issues in sampling

Unit 2: Qualitative data: sources; issues in sampling

Unit 3: Surveys and Questionnaires

Unit 4: Interviews

Unit 5: Use of standardised assessment instruments

Unit 5: Observational methods

Unit 6: Experimental measurement

The module is appropriate for professionally qualified staff who wish to develop research skills with a view to improving their professional practice.

The core text for this module is Robson, C. (2002) Real World Research: A resource for social scientists and practitioner-researchers: 3rd edition. Oxford: Wiley.

Programme module type:	Compulsory for Postgraduate Diploma in Adults with Learning Disabilities who have Significant and Complex Needs.
Pre-requisite(s):	60 credits from CE5001 - CE5006 or PS5401 - PS5406 or 60 credits from an equivalent Postgraduate Certificate in Learning Disabilities
Learning and teaching methods and delivery:	**Weekly contact**: 1 introductory seminar - Teaching materials supplied for distance learning, supported by online materials and accessed by University websites (Moodle), library electronic databases. University tutor support by email and telephone.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Campbell
Module teaching staff:	Dr M Campbell, Prof J Hogg

PS5103 Quantitative Data Analysis: Fixed Designs

SCOTCAT Credits:	10	SCQF Level 11	Semester:	Whole Year
Planned timetable:	100 notional hours of learning time (delivered by online distance learning).			

This distance-learning module is one of six in the postgraduate Diploma programme Adults with Learning Disabilities who have Significant and Complex Needs. It introduces students to the core skills necessary for research in the field of Intellectual Disability, including the following:

Unit 1: General design issues

Unit 2: Experimental design

Unit 3: Quasi-experimental designs

Unit 4: The analysis of quantitative data

Unit 5: Analysis of single subject data

Unit 6: Graphical presentation

The module is appropriate for professionally qualified staff who wish to develop research skills with a view to improving their professional practice.

The core text for this module is Robson, C. (2002) Real World Research: A resource for social scientists and practitioner-researchers: 3rd edition. Oxford: Wiley.

Programme module type:	Compulsory for Postgraduate Diploma in Adults with Learning Disabilities who have Significant and Complex Needs.
Pre-requisite(s):	60 credits from CE5001 - CE5006 or PS5401 - PS5406 or 60 credits from an equivalent Postgraduate Certificate in Learning Disabilities
Learning and teaching methods and delivery:	**Weekly contact**: 1 introductory seminar - Teaching materials supplied for distance learning, supported by online materials and accessed via University websites (Moodle), library electronic databases. University tutor support by email and telephone.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Campbell
Module teaching staff:	Dr M Campbell, Prof J Hogg

PS5104 Qualitative Data Analysis: Flexible Designs

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	100 notional hours of learning time (delivered by online distance learning).			

This distance-learning module is one of six in the postgraduate Diploma programme Adults with Learning Disabilities who have Significant and Complex Needs. It introduces students to the core skills necessary for research in the field of Intellectual Disability, including the following:

Unit 1: Background to qualitative research

Unit 2: Grounded theory studies

Unit 3: Case study methods

Unit 4: Ethnographic studies

Unit 5: Analysing qualitative data

Unit 6: What to avoid in reporting qualitative research

The module is appropriate for professionally qualified staff who wish to develop research skills with a view to improving their professional practice.

The core text for this module is Robson, C. (2002) Real World Research: A resource for social scientists and practitioner-researchers: 3rd edition. Oxford: Wiley.

Programme module type:	Compulsory for Postgraduate Diploma in Adults with Learning Disabilities who have Significant and Complex Needs.
Pre-requisite(s):	60 credits from CE5001 - CE5006 or PS5401 - PS5406 or 60 credits from an equivalent Postgraduate Certificate in Learning Disabilities
Learning and teaching methods and delivery:	**Weekly contact**: 1 introductory seminar - Teaching materials supplied for distance learning, supported by online materials and accessed via University webistes (Moodle), library electronic databases. University tutor support by email and telephone.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Campbell
Module teaching staff:	Dr M Campbell, Prof J Hogg

PS5105 Writing a Research Report

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	100 notional hours of learning time (delivered by online distance learning).			

This distance-learning module is one of six in the postgraduate Diploma programme Adults with Learning Disabilities who have Significant and Complex Needs. It introduces students to the core skills necessary for research in the field of Intellectual Disability, including the following:

Unit 1: Reporting data from a quantitative study

Unit 2: Reporting data from a qualitative study

Unit 3: Types of report (empirical, review, case study etc)

Unit 4: Organisation and content in reporting research

Unit 5: Referencing

Unit 6: Submitting papers for journal publication

The module is appropriate for professionally qualified staff who wish to develop research skills with a view to improving their professional practice.

The core text for this module will be Robson, C. (2002) Real World Research: A resource for social scientists and practitioner-researchers: 3rd edition. Oxford: Wiley.

Programme module type:	Compulsory for Postgraduate Diploma in Adults with Learning Disabilities who have Significant and Complex Needs.
Pre-requisite(s):	60 credits from CE5001 - CE5006 or PS5401 - PS5406 or 60 credits from an equivalent Postgraduate Certificate in Learning Disabilities
Learning and teaching methods and delivery:	**Weekly contact**: 1 introductory seminar - Teaching materials supplied for distance learning, supported by online materials and accessed via University websites (Moodle), library electronic databases. University tutor support by email and telephone.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Campbell
Module teaching staff:	Dr M Campbell, Prof J Hogg

PS5106 Undertaking a Small Scale Study

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	100 notional hours of learning time (delivered by online distance learning).			

This distance-learning module is one of six in the postgraduate Diploma programme Adults with Learning Disabilities who have Significant and Complex Needs. It introduces students to the core skills necessary for research in the field of Intellectual Disability, including the following:

Unit 1: Developing your idea

Unit 2: Undertaking a literature review

Unit 3: Writing a research proposal

Unit 4: The practitioner-researcher re-visited

Unit 5: Requirements for course assignment

Unit 6: Working through the model answer

The module is appropriate for professionally qualified staff who wish to develop research skills with a view to improving their professional practice.

The core text for this module is Robson, C. (2002) Real World Research: A resource for social scientists and practitioner-researchers: 3rd edition. Oxford: Wiley.

Programme module type:	Compulsory for Postgraduate Diploma in Adults with Learning Disabilities who have Significant and Complex Needs.
Pre-requisite(s):	60 credits from CE5001 - CE5006 or PS5401 - PS5406 or 60 credits from an equivalent Postgraduate Certificate in Learning Disabilities
Learning and teaching methods and delivery:	**Weekly contact**: 1 introductory seminar - Teaching materials supplied for distance learning, supported by online materials and accessed via University websites (Moodle), library electronic databases. University tutor support by email and telephone.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Campbell
Module teaching staff:	Dr M Campbell, Prof J Hogg

PS5199 Dissertation for MSc Programme in Adults with Learning Disabilities who have Significant and Complex Needs

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be negotiated with supervisor, over a period of 12 months.			

A member of the teaching staff in the School of Psychology, who will advise on the choice of subject and provide guidance during the work, will supervise this research project and dissertation. The completed dissertation of not more than 15, 000 words must be submitted within 12 months of the starting date.

Programme module type:	Compulsory for MSc in Adults with Learning Disabilities who have Significant and Complex Needs.
Pre-requisite(s):	4 modules from CE5001 - CE5006 or all of PS5401 - PS5406 or 60 credits from an equivalent Postgraduate Certificate in Learning Disabilities plus PS5101 - PS5106
Learning and teaching methods and delivery:	**Weekly contact**: Individual Supervision.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Campbell
Module teaching staff:	Dr M Campbell, Prof J Hogg

Psychology of Dementia Care - by Distance Learning

Programme Requirements

Postgraduate Certificate Psychology of Dementia Care - Distance Learning
PS5500 (20 credits) and PS5501 (20 credits) and PS5502 (20 credits) Further requirements Select between 20 and 60 credits Students starting the course in January must select PS5500 and PS5501 and then PS5502 in the next academic year. Students starting the course in September must select all 3 modules.

PS5500 The Psychosocial Impact of Dementia					
SCOTCAT Credits:	20	SCQF Level 11	**Semester:**	2	
Planned timetable:	200 notional hours of learning time. Delivered by distance learning.				
This module provides an introduction to the psychosocial impact of dementia on individuals with a diagnosis and those who care for them. The module begins with an introduction to dementia. It addresses what dementia is and what it is not, different types and causes of the illness and patterns of progression in the brain. The module then addresses several different models of dementia - most notably the biomedical and psychosocial perspectives. The psychosocial impact of dementia on memory and communication will then be explored. This study of the combination of damage to the brain and the social context within which the illness exists will provide students with a context within which they can consider their own experiences of caring for individuals with dementia.					
Programme module type:	Compulsory for Postgraduate Certificate in Psychology of Dementia Care				
Pre-requisite(s):	University degree in a cognate discipline from a recognised HEI; Or *Accredited Prior Learning (RPL through formal certifiable learning); Or *Experiential Prior Learning (RPL gained through experience)				
Learning and teaching methods and delivery:	**Weekly contact**: 200 notional hours of learning time. Delivered by distance learning.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr M Ellis				
Module teaching staff:	Dr M Ellis				

PS5501 The Care of Individuals with Dementia

SCOTCAT Credits:	20	SCQF Level 11	Semester:	Summer
Planned timetable:	200 notional hours of learning time. Delivered by distance learning.			

This module provides an introduction to several psychological models of dementia care, i.e. biomedical, person-centred, palliative and supportive. The student is encouraged to consider the care model that is in use in his/her own workplace and to reflect on the impact of this approach from the perspectives of people with dementia, family members, professional caregivers and management. The module then explores how one might meet the psychological needs of individuals with dementia and their caregivers from each perspective. Students will then go on to learn about the psychology of the self in dementia care in terms of those with a diagnosis and their caregivers. The self will be examined in terms of its manifestation, psychological threats to self and how the self can be maintained in both caregivers and people with dementia. Psychological perspectives on relationship-building with individuals with dementia will then be explored. Students will be encouraged to reflect on their own experiences of caring for individuals with dementia and of forming relationships with them.

Programme module type:	Compulsory for Postgraduate Certificate in the Psychology of Dementia Care
Pre-requisite(s):	University degree in a cognate discipline from a recognised HEI; Or *Accredited Prior Learning (RPL through formal certifiable learning); Or *Experiential Prior Learning (RPL gained through experience)
Learning and teaching methods and delivery:	**Weekly contact**: 200 notional hours of learning time. Delivered by distance learning.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Ellis
Module teaching staff:	Dr M Ellis

PS5502 Implementing Effective Care

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	200 notional hours of learning time. Delivered by distance learning.			

The module provides a theoretical and evidence-based background to assist students to implement effective dementia care. Students will begin by considering the application of psychological theory to dementia care in different environments, i.e. the home, day care, residential care and hospital care. This will then lead to an analysis of the needs of each individual (those with a diagnosis and carers) in care situations. Students will then examine how one might assess what effective care might look like and how one might approach its measurement. This part of the module will foster the beginnings of research skills that will stand the student in good stead for further postgraduate study. The final section of this module will ask students to consider how effective care can be maintained. This will involve the exploration of self-determination theory and models of work motivation. On completing this module, students will be equipped with evidence-based strategies that will allow them to plan, change, measure and maintain effective practice in their workplaces.

Programme module type:	Compulsory for Postgraduate Certificate in the Psychology of Dementia Care
Pre-requisite(s):	University degree in a cognate discipline from a recognised HEI; Or *Accredited Prior Learning (RPL through formal certifiable learning); Or *Experiential Prior Learning (RPL gained through experience)
Learning and teaching methods and delivery:	**Weekly contact**: 200 notional hours of learning time. Delivered by distance learning.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Ellis
Module teaching staff:	Dr M Ellis

Master of Science Evolutionary and Comparative Psychology: The Origins of Mind

Programme Requirements

Evolutionary and Comparative Psychology: The Origins of Mind - MSc
150 credits from Module List: PS5005, PS5010 - PS5013 **and** 30 credits from Module List: PS4085 - PS4086, PS4096, PS5003, PS5021, PS5031

Compulsory modules:

PS5005 Methods of Data Analysis in Psychology					
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2	
Planned timetable:	12.00 noon Mon				
This module aims to ensure that students are competent in the use of advanced data analysis in psychology. This includes advanced training in common statistics (including regression, analysis of variance and multivariate techniques) plus additional training in qualitative methods. Students will also study more complex topics such as statistical modeling.					
Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind, MSc Psychology (Conversion), MSc in Health Psychology, Compulsory for Research Methods in Psychology (MSc)				
Learning and teaching methods and delivery:	**Weekly contact**: 11 x 3-hour workshops plus optional tutorials.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr E Bowman				
Module teaching staff:	Dr E Bowman, Dr R Spence, Dr S Pehrson and Professor S Reicher				

PS5010 Principal Approaches to the Origins of Mind					
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1	
Planned timetable:	9.00 am Seminars, 2.00 pm practicals/tutorials.				
This module serves to introduce distinct ways of studying the origins of mind within a comparative Tinbergian framework, emphasising both functional and mechanistic accounts; why capacities exist, how they are implemented, how they evolved and how they develop. Lectures will cover general evolutionary theory and: (1) Comparative/Phylogenetic, (2) Developmental, (3) Mechanistic/causal, and (4) Functional/adaptive approaches. 'Hot' research topics will be presented using particulars of these frameworks and will exemplify the spectrum of methods possible to address the origins of mind.					
Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind.				
Co-requisite(s):	PS5005, PS5011, PS5012, PS5013				
Learning and teaching methods and delivery:	**Weekly contact**: Seminar and tutorial/practical each week.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	Dr C Hobaiter				
Module teaching staff:	Dr C Hobaiter and Dr G Brown				

PS5011 Empirical Approaches to the Evolution of Communication

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will explore the evolution of human language and animal communication through the comparative study of communication and cognition in humans and a variety of non-human species. The module will include detailed analysis of multiple empirical approaches used in cutting-edge research in both field and laboratory. The module integrates evolutionary theory, behavioural ecology, ethology, linguistics and psychological theory to account for how and why humans and other species have evolved their unique communication skills. An important focus will be on empirical methods of testing various theories proposed for the evolution of communication and language.

Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind.
Co-requisite(s):	PS5005, PS5010, PS5012, PS5013
Learning and teaching methods and delivery:	**Weekly contact**: 10 x 3-hour sessions including seminars, tutorials and practicals over the semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof K Zuberbühler

PS5012 Origins of Human Cognition

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am seminars, 2.00 pm practicals/tutorials.			

This module focuses on the origins of human cognition from evolutionary and developmental perspectives. How do we come to parse the 'blooming buzzing confusion' of cues from our physical and social environments into meaningful representations that support functionally adaptive behaviour? In the physical world are objects, their properties and the causal underpinnings of their interactions. The social world contains agents, their actions, and their mental states. How does cognitive processing reveal cues and build representations about the causal structure of the physical and social world? This course examines how these features are perceived and processed by developing humans and other animals for adaptive behaviour, and investigates the evidence for the proximate mechanisms underlying the abilities seen. The module links together the evolution and development of different cognitive abilities with a focus on empirical comparative research.

Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind.
Co-requisite(s):	PS5005, PS5010, PS5011, PS5013
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars, 1.5- hour tutorials and practicals.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr A Seed
Module teaching staff:	Dr A Seed

PS5013 Research Project

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Summer
Planned timetable:	Not applicable.			

This aim of this module is to acquire research skills within the domain of evolutionary psychology. Students will conduct and report a research project from an evolutionary perspective. Projects may comprise field and/or laboratory-based studies, the analysis (including meta-analysis) of extant data, or the critical review and evaluation of existing literature. Students will need to demonstrate substantive contribution to the project and that the work is original. The thesis can be in any area of evolutionary psychology agreed by the student's supervisor and course coordinator, and approved by ethical review.

Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind.
Co-requisite(s):	PS5005, PS5010, PS5011, PS5012
Learning and teaching methods and delivery:	**Weekly contact**: Not applicable.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Spencer

Optional modules:

PS4085 Evolution and Development of Social and Technical Intelligence

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Fri			

The last two decades have witnessed a surge of research on social and technical intelligence, both in humans and an increasingly wide range of non-human animal species. This module surveys the principal discoveries, integrating field and captive studies, as well as both observational and experimental methodologies, to trace the evolution and development of aspects of social intelligence such as imitation and theory of mind, and technical intelligence, such as tool use and understanding of causality. Key aims include appreciating the range of methodologies that have been developed and how these can be used to trace the evolution and ontogeny of the underlying psychological mechanisms.

Programme module type:	Optional for MSc Evolutionary and Comparative Psychology: the Origins of Mind.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars plus office hour.
Assessment pattern:	Take Home Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr C Cross

PS4086 Origins and Evolution of Mind Reading (Theory of Mind)

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2
Planned timetable:	9.00 am - 11.00 am Fri			

The module will offer a comparative approach to the emergence of the ability to understand mental states in children and non-human primates, and its alteration in autism. This ability (also known as Theory of Mind) is at the heart of many of humans unique cognitive achievements, but their origins can be traced back in evolution and development. The course will discuss the current state of research in this area, emphasising both empirical and conceptual aspects posed by the combination of the evolutionary and developmental approaches.

Programme module type:	Optional for MSc Evolutionary and Comparative Psychology: the Origins of Mind.
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars plus office hour.
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr J-C Gomez

PS4096 Mechanisms of Behaviour: integrating psychological and neuroscience perspectives

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

The aim of this module is to explore some of the many physiological and neural systems that modulate patterns of behaviour in a range of species, including humans. It will highlight the importance of integrating information from psychology and neuroscience disciplines in order to further our understanding of how and why animals and humans behave the way they do in different situations. The module will deal with examples of mechanisms across different levels of complexity (from genes to physiology). The module will include lectures and student presentations/journal club discussions based around current research articles in the field and a practical session with hands on experience of a physiological technique.

Programme module type:	Optional for MSc Evolutionary and Comparative Psychology: the Origins of Mind. Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 10 weeks), 1 practical class (x 4 weeks) plus office hour.
Assessment pattern:	Coursework (including presentation) = 100%
Module coordinator:	Dr K Spencer

PS5003 Generic Research and Professional Skills in Psychology

SCOTCAT Credits:	30	SCQF Level 11	Semester:	Whole Year
Planned timetable:	To be arranged.			

This module introduces students to the various skills and issues that are of importance to academic psychologists irrespective of their particular area of research. Weekly seminars will cover the various topics, such as academic presentations (published writing, talks, posters), the use of technology in order to enhance communication, how to read research reports, how to gain ethical approval for research, and how to build an academic career.

Programme module type:	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for MSc in Health Psychology.
	Optional for MSc - Evolutionary and Comparative Psychology: the Origins of Mind.
Co-requisite(s):	All seven modules are to be taken together in the same session. The 'same session' requirement may be waived at the discretion of the Head of School.
Learning and teaching methods and delivery:	**Weekly contact**: 17 x 2-hour seminars.
Assessment pattern:	4 elements of Coursework = 100%
Module coordinator:	Dr S Pehrson

PS5021 Methodologies for Psychology and Neuroscience

SCOTCAT Credits:	15	SCQF Level 11	Semester:	Whole Year
Planned timetable:	To be arranged.			

The primary aim of this module would be that the student gains some practical, hands-on experience, albeit rather briefly, of a number of laboratory techniques and of research methodologies as are employed by the Principal Investigators in the School of Psychology and Neuroscience. Across the course the student would experience a wide variety of methods and research practices and thereby become more aware of the possibilities of an integrative approach. The course would entail one weekly session (approx. 5 hours per week) during which the student would spend a session in the laboratory of a PI (Principal Investigator). This module would cover the research design, data collection, data analysis and the publication style of each PI. The PI would demonstrate the methodology, data collection and data analysis relevant to that laboratory and to the field in which the PI works. This may include an introductory lecture or discussion of literature relevant to the PI's field and would be followed by observation of, and basic training in the specific techniques used by the PI in conducting that research. The student would be involved in any data collection that may take place during that session, be made aware of the way in which those data are analysed by that PI's group and then shown how those results are prepared for publication and other dissemination.

Programme module type:	Optional for MSc Evolutionary and Comparative Psychology: the Origins of Mind and Research Methods in Psychology (MSc)
Learning and teaching methods and delivery:	**Weekly contact**: 5 hours each week for 5 weeks.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Spencer

PS5031 Review - Approaches to the Study of Mind				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This supervised review will compare and contrast different theoretical and methodological approaches to a particular topic in the study of the mind. The aim of this module is to encourage students to gain a clear picture as to what is unique about an evolutionary approach to the study of the mind, how it differs from other psychological approaches, and to gain an appreciation of the strengths and weaknesses of such an approach. Suitable topics for review will be chosen by agreement with the student's supervisor and the Course Controller.

Programme module type:	Optional for MSc Evolutionary and Comparative Psychology: the Origins of Mind.
Co-requisite(s):	PS5005, PS5010, PS5011, PS5012, PS5013
Learning and teaching methods and delivery:	**Weekly contact**: 4 tutorials across the semester.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Bowman

Master of Research Neuroscience

Programme Requirements

Neuroscience - MRes
30 credits from Module List:PN5000-PN5001 **and** 30 credits from Module List: PN3313, PN4230-PN4231, PN4234-PN4235, PS4065, PS4071, PS4079, PS4089, PS4091, PS4096-PS4097, BL4232, BL4224, BL4274, BL4280, BL4282, BL5420 **and** PN5099 (120 credits) Additional PS-, PN- and BL-coded modules may be taken with approval of the programme coordinator and relevant module coordinator

Compulsory modules:

PN5000 Neuroscience Research Design Reading Party				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	Summer
Availability restrictions:	Available only to students on MRes in Neuroscience.			
Planned timetable:	n/a			
An introductory week-long module designed to provide an intensive introduction to designing and carrying out neuroscience research at the postgraduate level. Throughout the module, students will have opportunities learn transferable career skills that revolve around the process of proposing and evaluating scientific research. Students will critically analyse current primary literature in neuroscience and the methodology and ethical issues underlying research proposals. Students will self-direct their own learning and work in groups to formulate research proposals which they then orally present. In response to feedback, students finally submit a written assessment that critically evaluates published primary literature or grant proposals.				
Programme module type:	Compulsory for Neuroscience MRes			
Co-requisite(s):	PN5001 and PN5099			
Learning and teaching methods and delivery:	**Weekly contact**: 20 hours of lectures and 20 hours of tutorials during 1 week in summer vacation 2 weeks before presessional week			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S Pulver			
Module teaching staff:	Team taught			

PN5001 Techniques and Skills in Neuroscience Research

SCOTCAT Credits:	20	SCQF Level 11	Semester:	1
Planned timetable:	n/a			

This seminar-based module offers a theoretical perspective on state-of-the-art neuroscience techniques through critical analysis of primary literature. It also provides opprotunities to learn transferrable career skills that are of importance to neuroscientists irrespective of any one area of research. Weekly seminars will involve presentations by students and /or staff that cover neurophysiological, neuropharmacological and neurogenetic approaches to understanding neural function. Seminars will also provide a framework for discussing general career skills such as grant writing, gaining ethical approval for research, using technology to enhance communication, and social networking within scientific communities. Learning will be largely self-directed with students delving into research areas and career paths that they wish to pursue. Assessment will be based on oral presentations which synthesize and critique recent advances in neuroscience.

Programme module type:	Compulsory for Neuroscience MRes
Co-requisite(s):	PN5000 and PN5099
Learning and teaching methods and delivery:	**Weekly contact**: 1.5-hour seminars (x 11 weeks)
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr S Pulver
Module teaching staff:	Team taught

PN5099 Masters Thesis Research in Neuroscience

SCOTCAT Credits:	120	SCQF Level 11	Semester:	Whole Year
Planned timetable:	n/a			

The student will carry out a major piece of original and independent research under the supervision of an academic advisor. Supervision will be regular but will vary depending on the nature of the research project and the skill set of individual students. Under normal circumstances, research will be carried out during both semesters and during the summer. The aim of the module is to give students an opportunity to design, conduct and analyze neuroscience research and then learn how to present such work in writing. Assessemnt will be in the form of an oral presentation at the beginning of semester 2 and in the form of a written thesis submitted by the stated date in August.

Programme module type:	Compulsory for Neuroscience MRes
Learning and teaching methods and delivery:	**Weekly contact**: 1 hour (x 40 weeks)
Assessment pattern:	30-minute Oral Examination = 25%, Dissertation = 75%
Module coordinator:	Dr S Pulver
Module teaching staff:	various

Optional modules:

PN3313 Neuroscience

SCOTCAT Credits:	20	SCQF Level 10	**Semester:**	1
Planned timetable:	Lectures: 12.00 am Mon, Tue and Wed Practicals: to be arranged.			

This module covers biochemical, cellular and behavioural aspects of the nervous system in health and disease. It starts with the basic biochemistry of neural membrane proteins such as receptors and channels, and considers the cellular mechanisms of action potential generation and propagation, and synaptic transmission. The physiology of sensory perception is illustrated by examining the visual system, while motor control is considered in terms of vertebrate locomotion. Selected aspects of learning and memory processes are also examined. Students are given extensive hands-on experience of computer simulation as a learning tool in this course. The associated practical work illustrates the lecture course through experiments on the nerve impulse, and mechanisms of neuronal cell loss.

Programme module type:	Optional for MRes in Neuroscience, with approval of Programme Coordinator
Learning and teaching methods and delivery:	**Weekly contact**: 29 hours of lectures or tutorials in total, 3 x 3-hour practicals and 4 hours of labs during the semester.
Assessment pattern:	3-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr G Miles
Module teaching staff:	Prof F Gunn-Moore, Prof K Sillar, Dr S Pulver, Dr G Miles, Dr W Heitler, Dr W Li, Dr G Doherty

PN4230 Neurodegeneration and Aging

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Availability restrictions:	BSc Hons Neuroscience students have priority on this module			
Planned timetable:	Seminars: 3.00 pm - 4.00 Mon, 1.00 pm - 2.00 pm Thu (weeks 1-5); Seminars: 12.00 pm - 2.00 pm Thu (weeks 7 and 9-11); Labs: 2.00 pm - 5.00 pm Tues, Wed (week 8)			

In this module, students will develop a detailed understanding of molecular neuroscience. Work will focus at the biochemical and molecular level, so that detailed knowledge of signalling pathways will be gained.The module concentrates on three key areas relating to neurodegenerative processes. 1) How neurons stay alive 2) The aging nervous system: Changes that can 'prime' neurons for degeneration, degenerative disorders - risks, pathology, treatments. Including a practical session 3) How the nervous system responds to neurodegenerative diseases, with particular focus on Alzheimer's disease.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: Seminars: up to 2 hours per week (to a total of 18 hours) and 2 x 3-hour practicals during the semester.
Assessment pattern:	2-hour Written Examination = 66%, Coursework = 34%
Module coordinator:	Dr G Doherty
Module teaching staff:	Prof F Gunn-Moore, Dr G Doherty, Dr M Andrews

PN4231 Neuromodulation

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Availability restrictions:	BSc Hons Neuroscience students have priority on this module			
Planned timetable:	Lectures: 11.00 am - 12.00 noon Tue and 10.00 am - 11.00 am Fri. Practicals to be arranged.			

Until recently the nervous system was viewed as a black and white world in which neuronal networks carried out tasks using fast chemical synaptic transmission to produce an appropriate network output. However the output of neuronal networks is not fixed but instead is modifiable under different behavioural or developmental circumstances. A major source of flexibility in the output neuronal networks derives from neuromodulation; a process in which the basic operation of the networks remains the same but the strengths of synaptic connections and the integrative electrical properties of neurons in the networks are changed by the actions of a range of neuromodulators. This module explores the diverse range of neuromodulatory mechanisms and outlines their importance in information processing in the nervous system.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminars.
Assessment pattern:	1.5-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr S Pulver
Module teaching staff:	Dr S Pulver, Prof K Sillar, Dr G Miles, Dr W Li, Dr W Heitler

PN4234 Synaptic Transmission

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Availability restrictions:	BSc Hons Neuroscience students have priority on this module			
Planned timetable:	Lectures: 11.00 am -12:30 pm Wed and 12.00 noon -1.00 pm Fri. Practicals to be arranged.			

Extensive and versatile communication between nerve cells using special junctions called synapses endows the nervous system with many complex functions like learning and memory. This module will cover important recent progress in understanding the morphology and ultrastructure of synapses, neurotransmitter corelease and recycling mechanisms, retrograde signalling, synaptic plasticity, the role of glial cells and the development of neurotransmission. Some laboratory work will provide students with hands-on experience of advanced research methods.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: A total of 6 x 1.5 hour seminars, 7 x 1 hour lectures and 2 x 3 hour practicals over 10 weeks
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr W Li
Module teaching staff:	Dr W Li, Dr S Pulver, Dr G Miles

PN4235 Motoneurons: From Physiology to Pathology

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1	
Availability restrictions:	BSc Hons Neuroscience students have priority on this module				
Planned timetable:	Lectures : 2.00 pm - 3.00 pm Mon and 9.00 am - 10.30 am Fri. Practicals to be arranged.				

This module aims to provide in depth knowledge of key aspects of neuronal function and potential dysfunction by focussing on one of the most studied and best characterised classes of neurons in the central nervous system, motoneurons. The module will cover topics such as: the history of motoneurons in neuroscience research; the genetics controlling motoneuron development, the intrinsic electrical properties of motoneurons; synaptic inputs received by motoneurons; motoneuron recruitment; and motoneuron disease.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 10 hours of seminars, 6 hours of lectures and 6 hours of practical over the semester.
Assessment pattern:	2-hour Written Examination = 60%, Coursework = 40%
Module coordinator:	Dr G Miles
Module teaching staff:	Dr W Li, Prof K Sillar, Dr G Miles, Dr W Heitler

PS4071 Behavioural Neuroscience

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1	
Planned timetable:	11.00 am - 1.00 pm Thu				

The overall aim of this module is to allow students access to current research in the area of behavioural neuroscience. Possible topics include motivation, learning and attention. Past themes explored in the module include: the relationship between 'normal' learning and addiction; the transition from goal-directed action to stimulus-response habit; the neural basis of compulsive gambling; the efficacy of biological treatments of addiction; and the behavioural and neural effects of MDMA ('ecstasy'). Results from both human and animal research will be considered in parallel, with examples of papers ranging from molecular neuroscience to neuropsychology. The format of the module will include lectures (which are designed to provide the students with the background necessary to read research articles); guided seminars and student presentations summarising research articles. In order to maximise the benefits of the students' presentations, each student will meet with the lecturer at least twice to discuss the topic and content of their talk.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars plus office hour.
Assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%
Module coordinator:	Dr E M Bowman

PS4079 Sex Differences and Gender Development

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	11.00 am - 1.00 pm Fri			

This advanced-level module will examine the evidence for sex differences in human behaviour and explore how gender develops across the lifespan. Students will learn how hormones, such as testosterone and estrogen, influence brain function and behaviour in non-human animals and will apply this knowledge to human data. Example topics include sexual behaviour (including sexual orientation), aggression, memory, sex differences in mental health, and the evolution of sex differences. Teaching will be based on student-led seminars with supporting lectures. Emphasis will be placed on critical evaluation and the ability to relate scientific data to broader debates regarding sex differences in behaviour.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars plus office hour.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr G Brown

PS4089 Neural Basis of Episodic Memory

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	11.00 am - 1.00 pm Tue			

This module will examine how the brain enables us to remember information from our personal experience. It will present students with cutting edge research using both humans and animals that gives us an insight into how the psychological components of episodic memory can be represented and processed by the brain. We will go on to look at how this type of research is applied in fields such as future thinking and memory decline in dementia. The course will include lectures and student presentations based around current research articles in the field.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminars plus office hour.
Assessment pattern:	Written Take Home Examination = 75%, Coursework = 25%
Module coordinator:	Dr J A Ainge

PS4091 Computer-aided Research

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am Tue			

As research becomes ever more computationally intense, the ability to use modern research software is becoming indispensable. This practical module will offer an introduction to computational modelling and provide you with the skills necessary to apply it in your research. Emphasis will be put on using scientific scripting languages in a research context. This module will build on the statistical techniques learned in previous modules and introduce modelling techniques, and imaging, stimulus presentation, and data visualisation.

Programme module type:	Optional for Research Methods in Psychology (MSc), Optional for Neuroscience (MSc)
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar plus office hour.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Otto

PS4096 Mechanisms of Behaviour: integrating psychological and neuroscience perspectives

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2
Planned timetable:	12.00 noon - 2.00 pm Tue			

The aim of this module is to explore some of the many physiological and neural systems that modulate patterns of behaviour in a range of species, including humans. It will highlight the importance of integrating information from psychology and neuroscience disciplines in order to further our understanding of how and why animals and humans behave the way they do in different situations. The module will deal with examples of mechanisms across different levels of complexity (from genes to physiology). The module will include lectures and student presentations/journal club discussions based around current research articles in the field and a practical session with hands on experience of a physiological technique.

Programme module type:	Optional for MSc Evolutionary and Comparative Psychology: the Origins of Mind. Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour lecture (x 10 weeks), 1 practical class (x 4 weeks) plus office hour.
Assessment pattern:	Coursework (including presentation) = 100%
Module coordinator:	Dr K Spencer

PS4097 Research Methods in Cognitive Neuroscience

SCOTCAT Credits:	15	SCQF Level 10	Semester:	2
Planned timetable:	9.00 am - 11.00 am Tue			

Tremendous progress in technology allows now to observe the brain in action to understand the physical bases of behaviour. This module showcases this state of the art approach.

Guided by a team of lecturers with first-hand expertise in trans cranial magnetic stimulation, neurophysiology, electrophysiology, behavioural modelling, neuropsychology and functional magnetic resonance imaging the students will develop their ability to evaluate and propose cutting edge research. The course includes lectures and student led discussions of current research topics.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar plus office hour.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Balslev
Module teaching staff:	Dr D Balslev, Dr T Otto, Dr J Ales, Dr G Miles

BL4232 Neuroethology

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

Neuroethology is the study of the neural control of natural animal behaviour from a comparative biological perspective. In this module we focus mainly on behaviours arising from the interactions between predators and their prey. Predators and prey are locked in an evolutionary arms race which continuously refines and improves the abilities of predators to locate and capture prey, and of prey to detect and evade predators. This strong selective pressure has produced some spectacular adaptations in both the nervous systems and the overall anatomy of the animals concerned. This, combined with the usually unambiguous motivation of the animals involved in predator-prey interactions (eat or starve, escape or be eaten) has made such adaptations favoured targets for study by neuroscientists, behavioural scientists, and biomechanicists. Students on this module will undertake a series of guided case studies researching the primary literature, and the module will also include some hands-on laboratory work. The aim is both to uncover some general principles of neural and biomechanical organisation, and also to reveal the variety and ingenuity with which evolution has found different solutions to shared problems.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 10 weeks)
Assessment pattern:	2-hour Written Examination = 50%, Coursework = 50%
Module coordinator:	Dr W J Heitler
Module teaching staff:	Dr W Heitler, Prof K Sillar

BL4274 Evolutionary Developmental Biology

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

Evolution of new morphologies involves changes to the development of organisms. The field of evolutionary developmental biology is thus becoming established as a major and essential component of any comprehensive understanding of evolutionary biology. This module aims to cover some of the main, current themes in evolutionary developmental biology. Since animal life evolved in the sea, much of what we can learn about the major events in animal evolution can be obtained from studying marine invertebrates. Consequently the examples covered in this module will tend to be drawn from these organisms.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 10 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr D Ferrier
Module teaching staff:	Dr D Ferrier, Dr I Somorjai

BL4280 Evolution and Human Behaviour

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	To be arranged.			

Evolutionary biologists, anthropologists and psychologists have taken evolutionary principles and used them to explain a range of human characteristics, such as homicide, religion and sex differences in behaviour. Other researchers are sceptical of these interpretations, and critical of the methods. Moreover, researchers disagree as to the best ways to use evolution to explore humanity, and a number of schools of thought have emerged. This module will introduce and critically evaluate the main evolutionary approaches currently being used, including socio-biology, evolutionary psychology, behavioural ecology and gene-culture co-evolution.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 10 weeks).
Assessment pattern:	1.5-hour Written Examination = 40%, Coursework = 60%
Module coordinator:	Dr M Webster
Module teaching staff:	Dr M Webster. Dr K Cross, Dr L Dean, Dr C Evans, Dr A Navarrete

BL4282 Biology and Behaviour of Social Insects

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	2
Planned timetable:	To be arranged.			

This module will examine and compare the biology of the four main groups of social insects: termites, ants, wasps and bees. Sociality in other groups (aphids, beetles) will also be considered briefly. Topics will include the evolution of sociality, social organisation and social control systems, reproductive strategies, and diverse communication modes including pheromonal systems, acoustic systems, and 'bee dances'. Aspects of foraging behaviour and learning abilities will also be considered, particularly for ants (leaf cutter ants, army ants, slave-making ants) and for bees both eusocial and semi-social. There will be strong evolutionary, ecological and behavioural themes, and relevance also to conservation issues.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 3-hour seminar (x 11 weeks).
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof P Willmer
Module teaching staff:	Prof P Willmer, Dr A Gardner, Dr G Ballantyne

BL5420 Advanced Microscopy and Image Analysis - Seeing is Believing

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module will introduce you to advanced imaging techniques, such as Confocal, Super-resolution, TIRF and Electron Microscopy and how these techniques have been utilised to address fundamental questions in Cell and Developmental Biology. You will get the opportunity to research techniques that are at the forefront of modern Biology and to develop skills in ImageJ analysis of imaging data, a skill that will be central to the advancement of bioscience in the coming years. Activities will be supplemented with research talks from academics at the cutting edge of their field and the opportunity to see advanced imaging techniques in practice.

Programme module type:	Optional for MRes in Neuroscience
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour seminar (x 9 weeks) and 2 x 2-hour seminar (x 1 week)
Assessment pattern:	1.5-hour Written Examination = 20%, Coursework = 80%
Module coordinator:	Dr M Bischoff
Module teaching staff:	Team taught

Master of Science Psychology (Conversion)

Programme Requirements

Psychology (Conversion) - MSc
100 credits from Module List: SS5104, PS5005, PS5240, PS5231 - PS5234 **and** 10 credits from Module List: PS5235 - PS5236 **and** 10 credits from Module List: PS5237 - PS5238 **and** PS5002 (60 credits)

Compulsory modules:

SS5104 Quantitative Research in Social Science				
SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	1.00 - 5.00 pm Mon			

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion). Compulsory for Research Methods in Psychology (MSc) Compulsory for various other MRes Programmes. Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc) Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales

PS5005 Methods of Data Analysis in Psychology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon			

This module aims to ensure that students are competent in the use of advanced data analysis in psychology. This includes advanced training in common statistics (including regression, analysis of variance and multivariate techniques) plus additional training in qualitative methods. Students will also study more complex topics such as statistical modeling.

Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind, MSc Psychology (Conversion), MSc in Health Psychology, Compulsory for Research Methods in Psychology (MSc)
Learning and teaching methods and delivery:	**Weekly contact**: 11 x 3-hour workshops plus optional tutorials.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr E Bowman
Module teaching staff:	Dr E Bowman, Dr R Spence, Dr S Pehrson and Professor S Reicher

PS5240 Review

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This review will critically analyse and review complex current material in one particular topic in the study of the mind. Students will be required to attend the School Seminar series and to elect the work presented by one of the speakers as the basis for this essay. As part of the essay they should read relevant publications both by the speaker and by others in the relevant field. Students should consider both the theoretical significance and the real-world relevance of the work.

Programme module type:	Compulsory for MSc Psychology (Conversion)
Learning and teaching methods and delivery:	**Weekly contact**: To be arranged with tutor.
Assessment pattern:	Review = 100%
Module coordinator:	Dr B Dritschel

PS5231 Conceptual Issues and Theoretical Perspectives

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Thu (first half of semester)			

This module addresses the historical and philosophical background to current debates in psychology. The module will be taught via lectures and seminars including student presentations. Emphasis will be placed on the development of critical analysis of alternative models and levels of explanations of behaviour, and the ability to relate conceptual debates in psychology to issues in the real world.

Programme module type:	Compulsory for MSc Psychology (Conversion)
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 x 1-hour tutorials across the semester.
Assessment pattern:	Coursework = 100%
Additional information from School:	Lectures are shared with undergraduates
Module coordinator:	Mr P L Gardner

PS5232 Assessment in Clinical Psychology

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Thu (second half of semester).			

This module presents psychopathological conditions and provides a basic understanding of the underlying neuronal and/or cognitive-behavioural mechanisms. Examples will be drawn from the field of clinical psychology and/or clinical neuropsychology. The module will further explore in detail the tools and procedures used to assess psychopathological conditions by discussing their theoretical/statistical background and by demonstrating how to use these tools in clinical and experimental settings. In addition, the use of these tools will be trained in small group settings.

Programme module type:	Compulsory for MSc Psychology (Conversion)
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 hours of tutorials across the semester.
Assessment pattern:	Coursework = 100%
Additional information from School:	Lectures are shared with undergraduates
Module coordinator:	Dr D Balslev

PS5233 Developmental Psychology

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Thu (first half of semester)			

This module is designed to equip students with an appreciation of key principles, concepts, methods and discoveries in developmental psychology, with an emphasis on evolutionary and Comparative perspectives that are a particular strength of such work in St Andrews. The module aims to offer a broad perspective spanning infancy to childhood, and a range of key topics in cognitive and social development.

Programme module type:	Compulsory for MSc Psychology (Conversion)
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 x 1-hour tutorials across the semester.
Assessment pattern:	Coursework = 100%
Additional information from School:	Lectures are shared with undergraduates
Module coordinator:	Dr E Robbins

PS5234 Social Psychology

SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Tue (first half of semester)			

This module explores in depth key topics across the breadth of social psychological enquiry. A variety of research approaches will be examined in order to develop the scientific understanding and critical skills in this field. Approaches that will be covered include social cognition, social identity and the study of intergroup relations. In each case, the strengths and limitations of the approaches are explored, and theoretical knowledge will be linked to current events.

Programme module type:	Compulsory for MSc Psychology (Conversion)
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 x 1-hour tutorials across the semester.
Assessment pattern:	Coursework = 100%
Additional information from School:	Lectures are shared with undergraduates
Module coordinator:	Dr N Tausch

Either:

PS5235 Cognitive and Behavioural Neuroscience				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Tue (first half of semester)			
This module aims to provide an understanding of psychological knowledge in several inter-related domains concerned with the biological bases of behaviour. Emphasis will be laid on basic experimental science from analysis of molecular and synaptic events, single cell studies, brain activity scans, and clinical studies, and the relationship between cognitive, emotional, behavioural, neurological and physiological processes will be examined.				
Programme module type:	Either PS5235 or PS5236 is compulsory for MSc Psychology (Conversion)			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 x 1-hour tutorials across the semester.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr I Jentzsch			

OR:

PS5236 Evolutionary and Comparative Psychology				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	2
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Tue (second half of semester)			
This module will address evolutionary and comparative approaches to psychology. The aim is to provide an understanding of major evolutionary forces and how they have shaped animal and human behaviour and psychology. Key principles, concepts and methodologies will be introduced and related to specific topic areas such as the evolution of social behaviour and the evolutionary origins of language and cognition.				
Programme module type:	Either PS5235 or PS5236 is compulsory for MSc Psychology (Conversion)			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 x 1-hour tutorials across the semester.			
Assessment pattern:	Coursework = 100%			
Additional information from School:	Lectures are shared with undergraduates			
Module coordinator:	Dr C Hobaiter			

PS5002 Research Project				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged with the supervisor.			
The student will carry out a major piece of original and independent research under the guidance of an academic supervisor. Under normal circumstances the research will be planned during the academic semesters and then conducted during the summer after successful completion of the other MSc modules. Supervision will be regular and will normally average approximately one hour every two weeks. The aim of the module is to give the student an opportunity to develop expertise in designing, conducting and analysing psychological research, and also to learn how to present such work in writing.				
Programme module type:	Compulsory for Research Methods in Psychology (MSc) and for the MSc Psychology (Conversion).			
Learning and teaching methods and delivery:	**Weekly contact**: Personal tutorials at approximately 2-weekly intervals.			
Assessment pattern:	15,000 word (maximum) research report = 100%			
Module coordinator:	Dr K Spencer			

Either:

PS5237 Perception				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Tue (second half of semester)			
The aim of this module is to develop an understanding of visual perception and its functions. Stress will be laid on the integration of findings from physiology, neuropsychology, anatomy, and psychophysics. Topic areas covered will include theories of human vision and their application to understanding our ability to perceive distinct visual properties, for example the shape, size, location and identity of objects. Emphasis will be placed on the development of the skill of critical evaluation of evidence and theory, with particular focus on awareness of the latest issues in the discipline.				
Programme module type:	Either PS5237 or PS5238 is compulsory for MSc Psychology (Conversion)			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 x 1-hour tutorials across the semester.			
Assessment pattern:	Coursework = 100%			
Additional information from School:	Lectures are shared with undergraduates			
Module coordinator:	Prof J Harris			

OR:

PS5238 Cognition				
SCOTCAT Credits:	10	SCQF Level 11	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am and 2.00 pm - 5.00 pm Thu (second half of semester)			
The aim of this module is to develop an understanding of human memory and attention. Topic areas covered will include theories of attention, short and long-term memory, processes involved in memory encoding, maintenance and retrieval. Emphasis will be placed on the development of the skill of critical evaluation of evidence and theory. Lectures will be accompanied by practical classes, in which students will gain experience of the experimental methods used in cognitive research, and seminars in which research papers will be critically evaluated.				
Programme module type:	Either PS5237 or PS5238 is compulsory for MSc Psychology (Conversion)			
Learning and teaching methods and delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x practical/workshop class of up to 3 hours. Additionally 5 x 1-hour tutorials across the semester.			
Assessment pattern:	Coursework = 100%			
Additional information from School:	Lectures are shared with undergraduates			
Module coordinator:	Dr T Otto			

PS5002 Research Project				
SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged with the supervisor.			
The student will carry out a major piece of original and independent research under the guidance of an academic supervisor. Under normal circumstances the research will be planned during the academic semesters and then conducted during the summer after successful completion of the other MSc modules. Supervision will be regular and will normally average approximately one hour every two weeks. The aim of the module is to give the student an opportunity to develop expertise in designing, conducting and analysing psychological research, and also to learn how to present such work in writing.				
Programme module type:	Compulsory for Research Methods in Psychology (MSc) and for the MSc Psychology (Conversion).			
Learning and teaching methods and delivery:	**Weekly contact**: Personal tutorials at approximately 2-weekly intervals.			
Assessment pattern:	15,000 word (maximum) research report = 100%			
Module coordinator:	Dr K Spencer			

Masters of Science Research Methods in Psychology

Programme Requirements

Research Methods in Psychology - MSc
105 credits from Module List: PS5003, PS5005, SS5102 - SS5104 **and**   15 credits from Module List: SS5101, PS5021, PS4091 **and**   PS5002 (60 credits)

Compulsory modules:

PS5003 Generic Research and Professional Skills in Psychology				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			
This module introduces students to the various skills and issues that are of importance to academic psychologists irrespective of their particular area of research. Weekly seminars will cover the various topics, such as academic presentations (published writing, talks, posters), the use of technology in order to enhance communication, how to read research reports, how to gain ethical approval for research, and how to build an academic career.				
Programme module type:	Compulsory for Research Methods in Psychology (MSc) Compulsory for MSc in Health Psychology. Optional for MSc - Evolutionary and Comparative Psychology: the Origins of Mind.			
Co-requisite(s):	All seven modules are to be taken together in the same session. The 'same session' requirement may be waived at the discretion of the Head of School.			
Learning and teaching methods and delivery:	**Weekly contact**: 17 x 2-hour seminars.			
Assessment pattern:	4 elements of Coursework = 100%			
Module coordinator:	Dr S Pehrson			

PS5005 Methods of Data Analysis in Psychology				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	12.00 noon Mon			
This module aims to ensure that students are competent in the use of advanced data analysis in psychology. This includes advanced training in common statistics (including regression, analysis of variance and multivariate techniques) plus additional training in qualitative methods. Students will also study more complex topics such as statistical modeling.				
Programme module type:	Compulsory for MSc Evolutionary and Comparative Psychology: the Origins of Mind, MSc Psychology (Conversion), MSc in Health Psychology, Compulsory for Research Methods in Psychology (MSc)			
Learning and teaching methods and delivery:	**Weekly contact**: 11 x 3-hour workshops plus optional tutorials.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Dr E Bowman			
Module teaching staff:	Dr E Bowman, Dr R Spence, Dr S Pehrson and Professor S Reicher			

SS5102 Philosophy and Methodology of the Social Sciences

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	3.00 pm - 5.00 pm Wed			

This seminar-based module will introduce you to the basic theoretical approaches in the social sciences, encourage you to make connections between the methodological and epistemological issues involved in conducting social scientific research, and inspire you to reflect critically your own experience. The module will cover modern philosophy's historical evolution, positivism, feminism, critical theory and post-structuralism among other topics. Assessment will involve a one short review and one longer essay.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development, for Research Methods in Psychology (MSc) and various other MRes Programmes
	Optional for Sustainable Development (MRes), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	TBC (Colleagues from International Relations)

SS5103 Qualitative Methods in Social Research

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr M Kesey and Dr D Williams

SS5104 Quantitative Research in Social Science

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	1.00 - 5.00 pm Mon			

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion).
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes.
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales

PS5002 Research Project

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged with the supervisor.			

The student will carry out a major piece of original and independent research under the guidance of an academic supervisor. Under normal circumstances the research will be planned during the academic semesters and then conducted during the summer after successful completion of the other MSc modules. Supervision will be regular and will normally average approximately one hour every two weeks. The aim of the module is to give the student an opportunity to develop expertise in designing, conducting and analysing psychological research, and also to learn how to present such work in writing.

Programme module type:	Compulsory for Research Methods in Psychology (MSc) and for the MSc Psychology (Conversion).
Learning and teaching methods and delivery:	**Weekly contact**: Personal tutorials at approximately 2-weekly intervals.
Assessment pattern:	15,000 word (maximum) research report = 100%
Module coordinator:	Dr K Spencer

Optional modules:

SS5101 Being a Social Scientist

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1	

Planned timetable:	3.00 - 5.00 pm Fri

Through a series of interactive seminars this two-part module explores the fundamental skills required by all social scientists. In part one, the module will focus on how to design and produce a research dissertation. Assessment will be in the form of a critical essay that analyses the research design of a selection of papers. In part two, issues of professional development (e.g. ethics, careers, grant writing) will be addressed. Assessment will be in the form of a class test in which you will review and comment on two research proposals.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development.
	Compulsory for various MRes Programmes outwith the School.
	Optional for Research Methods in Psychology (MSc), for Sustainable Development and Environmental Economics (MSc), for Sustainable Development (MSc), for Sustainable Development and Energy (MSc).
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby

PS5021 Methodologies for Psychology and Neuroscience

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	Whole Year	

Planned timetable:	To be arranged.

The primary aim of this module would be that the student gains some practical, hands-on experience, albeit rather briefly, of a number of laboratory techniques and of research methodologies as are employed by the Principal Investigators in the School of Psychology and Neuroscience. Across the course the student would experience a wide variety of methods and research practices and thereby become more aware of the possibilities of an integrative approach. The course would entail one weekly session (approx. 5 hours per week) during which the student would spend a session in the laboratory of a PI (Principal Investigator). This module would cover the research design, data collection, data analysis and the publication style of each PI. The PI would demonstrate the methodology, data collection and data analysis relevant to that laboratory and to the field in which the PI works. This may include an introductory lecture or discussion of literature relevant to the PI's field and would be followed by observation of, and basic training in the specific techniques used by the PI in conducting that research. The student would be involved in any data collection that may take place during that session, be made aware of the way in which those data are analysed by that PI's group and then shown how those results are prepared for publication and other dissemination.

Programme module type:	Optional for MSc Evolutionary and Comparative Psychology: the Origins of Mind and Research Methods in Psychology (MSc)
Learning and teaching methods and delivery:	**Weekly contact**: 5 hours each week for 5 weeks.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr K Spencer

PS4091 Computer-aided Research

SCOTCAT Credits:	15	SCQF Level 10	**Semester:**	1
Planned timetable:	9.00 am - 11.00 am Tue			

As research becomes ever more computationally intense, the ability to use modern research software is becoming indispensable. This practical module will offer an introduction to computational modelling and provide you with the skills necessary to apply it in your research. Emphasis will be put on using scientific scripting languages in a research context. This module will build on the statistical techniques learned in previous modules and introduce modelling techniques, and imaging, stimulus presentation, and data visualisation.

Programme module type:	Optional for Research Methods in Psychology (MSc)
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture and 1 seminar plus office hour.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr T Otto

Department of Social Anthropology

Taught Programmes

Masters in Research - MRes or

Master of Philosophy - MPhil:

Anthropology, Art and Perception

Social Anthropology

Social Anthropology and Amerindian Studies

Social Anthropology with Pacific Studies

For all Masters degrees there are exit awards available that allow suitably-qualified candidates to receive a Postgraduate Certificate or Postgraduate Diploma.

Masters in Research Anthropology, Art and Perception

Programme Requirements

Anthropology, Art and Perception - MRes
120 credits from Module List: SA5010 - SA5011, SA5020 - SA5021 **and** (SA5099 (60 credits) **or** SA5022 (60 credits)) Students may substitute up to 30 credits from 3000- , 4000- or 5000-level SA modules, with the approval of the Course Coordinator.

MPhil:

As for MRes plus a thesis of not more than 40,000 words (in place of SA5099).

Compulsory modules:

SA5010 Research Methods in Social Anthropology				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module aims to examine the methodology of anthropological research through close attention to the relationship between method and fieldwork experience. In particular, students are led into readings of fieldwork diaries, journals and letters, and invited to consider the experience of fieldwork and anthropological research in the round [i.e. not just as methodology for data collection]. A core focus is on what else about fieldwork experience and anthropological research practice we can learn from looking at diaries and letters rather than just at published ethnographic monographs.				
Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	TBC			

SA5011 The Anthropology of Connections: Interdisciplinarity as Methodology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged.

This module builds on SA5010 by examining the relevance of other disciplines for Social Anthropology. Through lectures and seminars, students are shown how Anthropology can be extended and illuminated by working with methodologies and concepts drawn from History, Social Science, Philosophy, Language and the Arts. It shows how anthropologists must invoke other specialist disciplines during their work. It invites students to think of societies and anthropological theories as informed by internal and external constraints, dialogues and reinterpretations, which unfold in time. It will show the role of anthropology in articulating different disciplines.

Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5020 Anthropology, Art and Perception 1

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1

Planned timetable:	To be arranged.

This module centres on the role of perception in visual and material culture. It covers haptic, visual, sonic and gustatory themes in anthropology, including learning, apprenticeship, craft, community and cooperation, observation, the use of drawing and photography as research tools, design anthropology and aesthetics. It explores commonalities between anthropological fieldwork and contemporary arts practice.
It specifically addresses the relationship between anthropology, psychology and aesthetics; and the observer and the practitioner. The taught course is complemented by practical sessions; visiting speakers; films; and by case studies reflecting departmental research concerns with both Scottish anthropology and the interconnectedness of global art practices .

Programme module type:	Compulsory for MRes in Anthropology, Art and Perception Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week and occasional practicals and film/video viewing.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5021 Anthropology, Art and Perception 2

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2	

Planned timetable:	To be arranged.

This module continues the programme's sensory exploration across the anthropology of art and material culture, especially focusing on the visual, the local and global. It draws on the meeting points between film and science, and art, heritage and museum ethnography to develop new ways of thinking anthropologically about visual and material culture.

Themes include: a use of photography and archival imagery as research sources and tools; film as art and science; diasporic aesthetics; the use of new media tools such as U-Tube and Podcasts in research; and perceiving the past through material culture.

The teaching is complemented by practical sessions; visiting speakers; museum and other field trips; films; and by case studies reflecting departmental research concerns with both Scottish anthropology and the interconnectedness of global art practices.

Programme module type:	Compulsory for Anthropology, Art and Perception Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week and occasional practicals and film/video viewing.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

Compulsory module - One of:

SA5022 Art and Perception 3: Dissertation with Practical Element

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year	

Planned timetable:	At times to be arranged with the supervisor.

The dissertation-with-practical includes one 10 minute (max) sensory piece (film, DVD, sound recording, visual slide show, display etc) which can be made on simple and easily available equipment and software. This will be complemented by a reflective essay of 7500 words. The subject matter will be of anthropological relevance, selected in conjunction with the student's supervisor and other staff on the programme. Both subject and format of the piece will link to teaching in SA 5020 and SA 5021. They will draw on skills learned in the MRes throughout the year and be expected to show awareness of key issues in visual representation and observation. The project may include a short period of time, 3 weeks, in the field, to be agreed by staff and student. This will be supervised by a member of teaching staff who will advise on the subject choice and provide guidance throughout the research process.

Programme module type:	Either SA5022 or SA5099 is compulsory for Anthropology, Art and Perception Postgraduate Programme.
Pre-requisite(s):	SA5010, SA5011, SA5020, SA5021
Anti-requisite(s):	SA5099
Learning and teaching methods and delivery:	**Weekly contact**: Fieldwork
Assessment pattern:	Sensory Project = 50%, 7,500-word Reflective Essay = 50%
Module coordinator:	TBC

SA5099 Dissertation					
	SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
	Planned timetable:	At times to be arranged with the supervisor.			
	Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.				
	Programme module type:	Compulsory for Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology and Amerindian Studies, and MRes in Social Anthropology with Pacific Studies Postgraduate Programmes. Either SA5022 or SA5099 is compulsory for Ant			
	Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.			
	Assessment pattern:	Coursework (Dissertation) = 100%			
	Module coordinator:	Dr A Reed			

**Optional modules may be selected from Honours modules available.
See http://www.st-andrews.ac.uk/coursecatalogue/ug/**

Masters in Research Social Anthropology

Programme Requirements

Social Anthropology - MRes
60 credits from Module List: SA5010 - SA5011 **and** (60 credits from Module List: SA5020 - SA5021, SA5301 - SA5302, SA5203, SS5101 - SS5104 **or** 60 credits from Module List (ESRC-recognition pathway): SS5101 - SS5104) **and** SA5099 (60 credits) **ESRC-funded students must take 60 credits from the ESRC Pathway module list.** **Non-ESRC funded students may substitute up to 30 credits from 3000- or 4000-level SA modules, with the approval of the Course Coordinator.**

MPhil:

As for MRes plus a thesis of not more than 40,000 words (in place of SA5099).

Compulsory modules:

SA5010 Research Methods in Social Anthropology					
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2	
Planned timetable:	To be arranged.				
This module aims to examine the methodology of anthropological research through close attention to the relationship between method and fieldwork experience. In particular, students are led into readings of fieldwork diaries, journals and letters, and invited to consider the experience of fieldwork and anthropological research in the round [i.e. not just as methodology for data collection]. A core focus is on what else about fieldwork experience and anthropological research practice we can learn from looking at diaries and letters rather than just at published ethnographic monographs.					
Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.				
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.				
Assessment pattern:	Coursework = 100%				
Module coordinator:	TBC				

Social Anthropology - Social Anthropology MRes & MPhil - 2017/8 - August 2017

SA5011 The Anthropology of Connections: Interdisciplinarity as Methodology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module builds on SA5010 by examining the relevance of other disciplines for Social Anthropology. Through lectures and seminars, students are shown how Anthropology can be extended and illuminated by working with methodologies and concepts drawn from History, Social Science, Philosophy, Language and the Arts. It shows how anthropologists must invoke other specialist disciplines during their work. It invites students to think of societies and anthropological theories as informed by internal and external constraints, dialogues and reinterpretations, which unfold in time. It will show the role of anthropology in articulating different disciplines.

Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5099 Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology and Amerindian Studies, and MRes in Social Anthropology with Pacific Studies Postgraduate Programmes. Either SA5022 or SA5099 is compulsory for Ant
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr A Reed

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Compulsory modules for ESRC-recognition pathway (otherwise optional):

SS5101 Being a Social Scientist

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1
Planned timetable:	3.00 - 5.00 pm Fri			

Through a series of interactive seminars this two-part module explores the fundamental skills required by all social scientists. In part one, the module will focus on how to design and produce a research dissertation. Assessment will be in the form of a critical essay that analyses the research design of a selection of papers. In part two, issues of professional development (e.g. ethics, careers, grant writing) will be addressed. Assessment will be in the form of a class test in which you will review and comment on two research proposals.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development.
	Compulsory for various MRes Programmes outwith the School.
	Optional for Research Methods in Psychology (MSc), for Sustainable Development and Environmental Economics (MSc), for Sustainable Development (MSc), for Sustainable Development and Energy (MSc).
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby

SS5102 Philosophy and Methodology of the Social Sciences

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2
Planned timetable:	3.00 pm - 5.00 pm Wed			

This seminar-based module will introduce you to the basic theoretical approaches in the social sciences, encourage you to make connections between the methodological and epistemological issues involved in conducting social scientific research, and inspire you to reflect critically your own experience. The module will cover modern philosophy's historical evolution, positivism, feminism, critical theory and post-structuralism among other topics. Assessment will involve a one short review and one longer essay.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development, for Research Methods in Psychology (MSc) and various other MRes Programmes
	Optional for Sustainable Development (MRes), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	TBC (Colleagues from International Relations)

SS5103 Qualitative Methods in Social Research

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr M Kesey and Dr D Williams

SS5104 Quantitative Research in Social Science

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	1.00 - 5.00 pm Mon			

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion).
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes.
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales

Optional modules:

SA5020 Anthropology, Art and Perception 1

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module centres on the role of perception in visual and material culture. It covers haptic, visual, sonic and gustatory themes in anthropology, including learning, apprenticeship, craft, community and cooperation, observation, the use of drawing and photography as research tools, design anthropology and aesthetics. It explores commonalities between anthropological fieldwork and contemporary arts practice.

It specifically addresses the relationship between anthropology, psychology and aesthetics; and the observer and the practitioner. The taught course is complemented by practical sessions; visiting speakers; films; and by case studies reflecting departmental research concerns with both Scottish anthropology and the interconnectedness of global art practices .

Programme module type:	Compulsory for MRes in Anthropology, Art and Perception Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week and occasional practicals and film/video viewing.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5021 Anthropology, Art and Perception 2

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module continues the programme's sensory exploration across the anthropology of art and material culture, especially focusing on the visual, the local and global. It draws on the meeting points between film and science, and art, heritage and museum ethnography to develop new ways of thinking anthropologically about visual and material culture.

Themes include: a use of photography and archival imagery as research sources and tools; film as art and science; diasporic aesthetics; the use of new media tools such as U-Tube and Podcasts in research; and perceiving the past through material culture.

The teaching is complemented by practical sessions; visiting speakers; museum and other field trips; films; and by case studies reflecting departmental research concerns with both Scottish anthropology and the interconnectedness of global art practices.

Programme module type:	Compulsory for Anthropology, Art and Perception Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week and occasional practicals and film/video viewing.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5301 Anthropology of the Pacific 1				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module examines traditional issues and historical trends in the anthropology of the Pacific, with special reference to selected regions. It will cover both theoretical and substantive issues in Pacific ethnography.				
Programme module type:	Optional for Social Anthropology with Pacific Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminars and 1 tutorial.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof C Toren			

SA5302 Anthropology of the Pacific 2				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module looks at the challenges facing social anthropology and Pacific Studies in the twenty-first century. Students are invited to engage with current issues in the region through attention to contemporary and emerging debates within Pacific anthropology.				
Programme module type:	Optional for Social Anthropology with Pacific Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminars and 1 tutorial.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof C Toren			

Masters in Research
Social Anthropology and Amerindian Studies

Programme Requirements

Social Anthropology and Amerindian Studies - MRes
60 credits from Module List: SA5010 - SA5011 **and** SA5203 (30 credits) **and** 30 credits from Module List: SA5020 - SA5021, SA5301 - SA5302 **and** SA5099 (60 credits) Students may substitute up to 30 credits from 3000- or 4000-level SA modules, with the approval of the Course Coordinator

MPhil:

120 credits as for the MRes plus a thesis of not more than 40,000 words

Compulsory modules:

SA5010 Research Methods in Social Anthropology				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module aims to examine the methodology of anthropological research through close attention to the relationship between method and fieldwork experience. In particular, students are led into readings of fieldwork diaries, journals and letters, and invited to consider the experience of fieldwork and anthropological research in the round [i.e. not just as methodology for data collection]. A core focus is on what else about fieldwork experience and anthropological research practice we can learn from looking at diaries and letters rather than just at published ethnographic monographs.				
Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	TBC			

Social Anthropology - Social Anth with Amerindian Studies MRes - 2017/8 - August 2017

SA5011 The Anthropology of Connections: Interdisciplinarity as Methodology

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			

This module builds on SA5010 by examining the relevance of other disciplines for Social Anthropology. Through lectures and seminars, students are shown how Anthropology can be extended and illuminated by working with methodologies and concepts drawn from History, Social Science, Philosophy, Language and the Arts. It shows how anthropologists must invoke other specialist disciplines during their work. It invites students to think of societies and anthropological theories as informed by internal and external constraints, dialogues and reinterpretations, which unfold in time. It will show the role of anthropology in articulating different disciplines.

Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5099 Dissertation

SCOTCAT Credits:	60	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology and Amerindian Studies, and MRes in Social Anthropology with Pacific Studies Postgraduate Programmes. Either SA5022 or SA5099 is compulsory for Ant
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr A Reed

SA5203 Special Subject (Amerindian Studies)

SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	Whole Year
Planned timetable:	To be arranged.			

This is chosen in discussion with the supervisor, and is available for students with a well-thought-out and specific research interest in a particular topic. It can substitute for one of the preceding two modules.

Programme module type:	Optional for Social Anthropology and Amerindian Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 Hours.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof M Harris

Optional modules:

SA5020 Anthropology, Art and Perception 1

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module centres on the role of perception in visual and material culture. It covers haptic, visual, sonic and gustatory themes in anthropology, including learning, apprenticeship, craft, community and cooperation, observation, the use of drawing and photography as research tools, design anthropology and aesthetics. It explores commonalities between anthropological fieldwork and contemporary arts practice.

It specifically addresses the relationship between anthropology, psychology and aesthetics; and the observer and the practitioner. The taught course is complemented by practical sessions; visiting speakers; films; and by case studies reflecting departmental research concerns with both Scottish anthropology and the interconnectedness of global art practices .

Programme module type:	Compulsory for MRes in Anthropology, Art and Perception Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week and occasional practicals and film/video viewing.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5021 Anthropology, Art and Perception 2

SCOTCAT Credits:	30	SCQF Level 11	Semester:	2
Planned timetable:	To be arranged.			

This module continues the programme's sensory exploration across the anthropology of art and material culture, especially focusing on the visual, the local and global. It draws on the meeting points between film and science, and art, heritage and museum ethnography to develop new ways of thinking anthropologically about visual and material culture.

Themes include: a use of photography and archival imagery as research sources and tools; film as art and science; diasporic aesthetics; the use of new media tools such as U-Tube and Podcasts in research; and perceiving the past through material culture.

The teaching is complemented by practical sessions; visiting speakers; museum and other field trips; films; and by case studies reflecting departmental research concerns with both Scottish anthropology and the interconnectedness of global art practices.

Programme module type:	Compulsory for Anthropology, Art and Perception Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 lectures per week and occasional practicals and film/video viewing.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5301 Anthropology of the Pacific 1				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	1
Planned timetable:	To be arranged.			
This module examines traditional issues and historical trends in the anthropology of the Pacific, with special reference to selected regions. It will cover both theoretical and substantive issues in Pacific ethnography.				
Programme module type:	Optional for Social Anthropology with Pacific Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminars and 1 tutorial.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof C Toren			

SA5302 Anthropology of the Pacific 2				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module looks at the challenges facing social anthropology and Pacific Studies in the twenty-first century. Students are invited to engage with current issues in the region through attention to contemporary and emerging debates within Pacific anthropology.				
Programme module type:	Optional for Social Anthropology with Pacific Studies Postgraduate Programme.			
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminars and 1 tutorial.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	Prof C Toren			

**Optional modules may be selected from Honours modules available.
See http://www.st-andrews.ac.uk/coursecatalogue/ug/**

Masters in Research Social Anthropology with Pacific Studies

Programme Requirements

Social Anthropology with Pacific Studies - MRes
60 credits from Module List: SA5010 - SA5011 **and**   60 credits from Module List: SA5301 - SA5302 **and** SA5099 (60 credits)   Students may substitute up to 30 credits from 3000- or 4000-level SA modules, with the approval of the Course Coordinator

Compulsory modules:

SA5010 Research Methods in Social Anthropology				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			
This module aims to examine the methodology of anthropological research through close attention to the relationship between method and fieldwork experience. In particular, students are led into readings of fieldwork diaries, journals and letters, and invited to consider the experience of fieldwork and anthropological research in the round [i.e. not just as methodology for data collection]. A core focus is on what else about fieldwork experience and anthropological research practice we can learn from looking at diaries and letters rather than just at published ethnographic monographs.				
Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.			
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.			
Assessment pattern:	Coursework = 100%			
Module coordinator:	TBC			

SA5011 The Anthropology of Connections: Interdisciplinarity as Methodology

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module builds on SA5010 by examining the relevance of other disciplines for Social Anthropology. Through lectures and seminars, students are shown how Anthropology can be extended and illuminated by working with methodologies and concepts drawn from History, Social Science, Philosophy, Language and the Arts. It shows how anthropologists must invoke other specialist disciplines during their work. It invites students to think of societies and anthropological theories as informed by internal and external constraints, dialogues and reinterpretations, which unfold in time. It will show the role of anthropology in articulating different disciplines.

Programme module type:	Compulsory for MRes in Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology with Pacific Studies and MRes in Social Anthropology and Amerindian Studies Postgraduate Programmes.
Learning and teaching methods and delivery:	**Weekly contact**: 1 lecture, 1 seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	TBC

SA5099 Dissertation

SCOTCAT Credits:	60	SCQF Level 11	Semester:	Whole Year
Planned timetable:	At times to be arranged with the supervisor.			

Student dissertations will be supervised by members of the teaching staff who will advise on the choice of subject and provide guidance throughout the research process. The completed dissertation of not more than 15,000 words must be submitted by the end of August.

Programme module type:	Compulsory for Anthropology, Art and Perception, MRes in Social Anthropology, MRes in Social Anthropology and Amerindian Studies, and MRes in Social Anthropology with Pacific Studies Postgraduate Programmes. Either SA5022 or SA5099 is compulsory for Ant
Learning and teaching methods and delivery:	**Weekly contact**: Individual supervision.
Assessment pattern:	Coursework (Dissertation) = 100%
Module coordinator:	Dr A Reed

SA5301 Anthropology of the Pacific 1

SCOTCAT Credits:	30	SCQF Level 11	Semester:	1
Planned timetable:	To be arranged.			

This module examines traditional issues and historical trends in the anthropology of the Pacific, with special reference to selected regions. It will cover both theoretical and substantive issues in Pacific ethnography.

Programme module type:	Optional for Social Anthropology with Pacific Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminars and 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof C Toren

SA5302 Anthropology of the Pacific 2				
SCOTCAT Credits:	30	SCQF Level 11	**Semester:**	2
Planned timetable:	To be arranged.			

This module looks at the challenges facing social anthropology and Pacific Studies in the twenty-first century. Students are invited to engage with current issues in the region through attention to contemporary and emerging debates within Pacific anthropology.

Programme module type:	Optional for Social Anthropology with Pacific Studies Postgraduate Programme.
Learning and teaching methods and delivery:	**Weekly contact**: 2 seminars and 1 tutorial.
Assessment pattern:	Coursework = 100%
Module coordinator:	Prof C Toren

**Optional modules may be selected from Honours modules available.
See http://www.st-andrews.ac.uk/coursecatalogue/ug/**

SS5101 Being a Social Scientist

SCOTCAT Credits:	15	SCQF Level 11	Semester:	1

Planned timetable:	3.00 - 5.00 pm Fri

Through a series of interactive seminars this two-part module explores the fundamental skills required by all social scientists. In part one, the module will focus on how to design and produce a research dissertation. Assessment will be in the form of a critical essay that analyses the research design of a selection of papers. In part two, issues of professional development (e.g. ethics, careers, grant writing) will be addressed. Assessment will be in the form of a class test in which you will review and comment on two research proposals.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development. Compulsory for various MRes Programmes outwith the School. Optional for Research Methods in Psychology (MSc), for Sustainable Development and Environmental Economics (MSc), for Sustainable Development (MSc), for Sustainable Development and Energy (MSc). Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby

SS5102 Philosophy and Methodology of the Social Sciences

SCOTCAT Credits:	15	SCQF Level 11	Semester:	2

Planned timetable:	3.00 pm - 5.00 pm Wed

This seminar-based module will introduce you to the basic theoretical approaches in the social sciences, encourage you to make connections between the methodological and epistemological issues involved in conducting social scientific research, and inspire you to reflect critically your own experience. The module will cover modern philosophy's historical evolution, positivism, feminism, critical theory and post-structuralism among other topics. Assessment will involve a one short review and one longer essay.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development, for Research Methods in Psychology (MSc) and various other MRes Programmes Optional for Sustainable Development (MRes), Sustainable Development and Environmental Economics (MSc) Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	TBC (Colleagues from International Relations)

SS5103 Qualitative Methods in Social Research

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	2
Planned timetable:	10.00 am - 12.00 noon Tue			

This seminar-based module offers both a theoretical and practical introduction to the collection, analysis and writing of qualitative social science research. Among other things, the module will cover positionality/ethics, archives, participant observation, participatory approaches, semi-structured interviewing and the use of NVIVO/computer aided qualitative data analysis. Assessment will involve a short refection on field experience and a longer critical essay on a chosen aspect of qualitative research.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 2-hour seminar.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr M Kesey and Dr D Williams

SS5104 Quantitative Research in Social Science

SCOTCAT Credits:	15	SCQF Level 11	**Semester:**	1
Planned timetable:	1.00 - 5.00 pm Mon			

This module provides a user-friendly introduction to the fundamental concepts of quantitative analysis. It will cover underlying principles, terminology, research design, sampling strategies, uncertainty and missing data, computerised data management and univariate and multivariate approaches to data analysis. The assessment will be in the form of practical tasks completed in class and/or independently.

Programme module type:	Compulsory for MRes in Human Geography / Sustainable Development Compulsory for MSc Psychology (Conversion).
	Compulsory for Research Methods in Psychology (MSc)
	Compulsory for various other MRes Programmes.
	Optional for Sustainable Development (MSc), Sustainable Development and Environmental Economics (MSc)
	Optional for various other MRes Programmes
Learning and teaching methods and delivery:	**Weekly contact**: 3-hour combined lecture and practical session.
Assessment pattern:	Coursework = 100%
Module coordinator:	Dr M Kesby
Module teaching staff:	Dr J Ales