

InterDisciplinary (ID) Modules

ID4001 Communication and Teaching in Science			
SCOTCAT Credits:	15	SCQF Level 10	Semester: 1
Availability restrictions:	Available only to final year students who have been accepted following application and interview in the preceding semester.		
Planned timetable:	Flexible		
<p>This module is based on the Undergraduate Ambassador Scheme launched in 2002. It provides final year students within the Faculty of Science with the opportunity to gain first hand experience of science education through a mentoring scheme with science teachers in local schools. Students will act initially as observers in the classroom and later as classroom assistants. With permission of the teacher-in-charge, students may also be given the opportunity to lead at least one lesson, or activity within a lesson, during their placement. This module will enable students to gain substantial experience of working in a challenging and unpredictable working environment, and of communicating scientific ideas at various different levels; and to gain a broad understanding of many of the key aspects of teaching science in schools. While of particular value to students aiming for a career in education, these core skills are equally important for any career that requires good communication. Entry to this module is by selection following application and interview during the preceding semester.</p>			
Programme module type:	Optional for degrees in the Faculty of Science who meet the appropriate criteria.		
Learning and teaching methods and delivery:	Weekly contact: Occasional tutorials and a half-day training session.		
	Scheduled learning: 30 hours		Guided independent study: 120 hours
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 55%, Coursework = 45%		
	As used by St Andrews: Coursework = 100% comprising: Written report on the placement (35%) Teacher's assessment of student's placement (25%) Oral presentation (30%) Project proposal (10%)		
Module Co-ordinator:	Prof A K Tobin		

InterDisciplinary - Honours Level 2012/13 - August 2012

ID4002 Communication and Teaching in Arts and Humanities			
SCOTCAT Credits:	15	SCQF Level 10	Semester: 1
Availability restrictions:	Available only to students in the Schools of Divinity, Geography & Geosciences, History, International Relations, Modern Languages or Departments of Philosophy.		
Planned timetable:	To be arranged.		
This module provides final year students within the Faculties of Arts and Divinity with the opportunity to gain first hand experience of education through a mentoring scheme with teachers in local schools. This module will enable students to gain substantial experience of working in a challenging and unpredictable working environment, and to gain a broad understanding of many of the key aspects of teaching in schools.			
Programme module type:	Optional for Divinity, Geography, History, International Relations, Modern Languages or Philosophy.		
Co-requisite(s):	If taken within Divinity, History, International Relations or Philosophy, a further 15-credit subject-specific module may be required.		
Learning and teaching methods and delivery:	Weekly contact: The module commences with an Induction Event at the University (3 hours). Students spend a minimum of 20 hours during the semester at their placement. 3 x 1-hour tutorials are held at the University during the semester. The module concludes with an oral presentation session.		
	Scheduled learning: 28 hours	Guided independent study: 122 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 30%, Coursework = 70%		
	As used by St Andrews: Coursework = 100% comprising: Written project proposal (10%) + written report (35%) = 45% Oral presentation (at University, assessed by module lecturers) = 30% A further 25% of Coursework is in the form of a report by their placement-mentor on the student's practical performance in the classroom on placement.		
Module Co-ordinator:	Dr E Stoddart		

ID4441 Combined Chemistry and Geology Research Project				
SCOTCAT Credits:	50	SCQF Level 10	Semester:	Whole Year
Planned timetable:	2 days per week.			
<p>The research project at Level 4000 for Chemistry and Geology students only 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 jointly by members of the academic staff in Chemistry and Geoscience.(Guidelines for printing and binding dissertations can be found at: http://www.st-andrews.ac.uk/printanddesign/dissertation/)</p>				
Programme module type:	(ES4010 and CH4448) OR ID4441 Compulsory for Chemistry and Geology			
Pre-requisite(s):	Admission to stage 4 of BSc programme in Joint Honours Chemistry and Geology			
Anti-requisite(s):	CH4442-CH4448, CH5441			
Learning and teaching methods and delivery:	Weekly contact: Reflection, laboratory work, library work, written and oral presentation preparation.			
	Scheduled learning: 34 hours		Guided independent study: 466 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Module Co-ordinator:	Dr T A Raub (Earth Sciences), Dr A Aitken (Chemistry)			

ID4442 Combined Research Project in Biology and Geology				
SCOTCAT Credits:	45	SCQF Level 10	Semester:	Whole Year
Planned timetable:	To be arranged.			
<p>This module provides an individual research project on a topic spanning the biological and geological sciences which allows the student to pursue in depth a topic of personal interest. The student works largely independently of supervision and has the opportunity to demonstrate individuality, initiative and enterprise. The project will be supported by advisors in both Biology and Geology. Skills of planning and executing research are learnt, as well as the ability to work independently, and present the results orally and in dissertation form (up to 10,000 words). (Guidelines for printing and binding dissertations can be found at: http://www.st-andrews.ac.uk/printanddesign/dissertation/)</p>				
Programme module type:	Compulsory for B.Sc. Honours programme in Biology and Geology			
Pre-requisite(s):	Admission to BSc Honours programme in Biology and Geology			
Learning and teaching methods and delivery:	Weekly contact: Individual supervision by member(s) of teaching staff			
	Scheduled learning: 20 hours		Guided independent study: 430 hours	
Assessment pattern:	As defined by QAA: Written Examinations = 0%, Practical Examinations = 10%, Coursework = 90%			
	As used by St Andrews: Research proposal = 5%, Oral Presentation = 10%, Dissertation = 85%			
Module Co-ordinator:	Dr T Raub			
Lecturer(s)/Tutor(s):	Dr T Raub			

InterDisciplinary - Honours Level 2012/13 - August 2012

ID5059 Knowledge Discovery and Datamining			
SCOTCAT Credits:	15	SCQF Level 11	Semester: 2
Academic year:	2012/3		
Availability restrictions:			
Planned timetable:	To be arranged.		
<p>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 the commercial packages SAS and SPSS.</p>			
Programme module type:	Optional for M.Sci. in Computer Science Optional for all other programmes in the School Compulsory for Applied Statistics and Datamining Taught Postgraduate Programme. Optional for Statistics Taught Postgraduate Programme.		
Pre-requisite(s):	Acceptance on to M.Math. Statistics M.Math. Mathematics, or M.Sc. programmes within the Schools of Mathematics & Statistics or Computer Science.		
Anti-requisite(s):	MT5759		
Learning and teaching methods and delivery:	Weekly contact: Lectures, seminars, tutorials and practical classes.		
	Scheduled learning: 35 hours	Guided independent study: 115 hours	
Assessment pattern:	As defined by QAA: Written Examination = 60%, Practical Examination = 0%, Coursework = 40%		
	As used by St Andrews: Coursework = 40%, Written Examination = 60%		
Module Co-ordinator:	Dr C R Donovan and Dr T Kelsey		
Lecturer(s)/Tutor(s):	Dr C R Donovan and Dr T Kelsey		