School of Chemistry

Important Degree Information:

B.Sc./M.A. Honours
The general requirements are 480 credits over a period of normally 4 years (and not more than 5 years) or part-time equivalent; the final two years being an approved honours programme of 240 credits, of which 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 levels. Refer to the appropriate Faculty regulations for lists of subjects recognised as qualifying towards either a B.Sc. or M.A. degree.

For the degree of B.Sc. Chemical Sciences (Honours) the approved honours programme of 240 credits, requires 90 credits at 4000 level and a further 110 credits (minimum) at 3000 and 4000 levels.

B.Sc./M.A. Honours with Integrated Year Abroad
The general requirements are 540 credits over a period of normally 5 years (and not more than 6 years) or part-time equivalent; the final three years being an approved honours programme of 300 credits, of which 60 credits are gained during the integrated year abroad, 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 levels. Refer to the appropriate Faculty regulations for lists of subjects recognised as qualifying towards either a B.Sc. or M.A. degree.

M.Chem. Honours
General requirements are 600 credits over a period of normally 5 years (and not more than 6 years) or part-time equivalent; the final three years being an approved honours programme of 360 credits, of which 120 credits are at 5000 level and at least a further 210 credits at 3000 and 4000 levels.

M.Sci. Honours
General requirements are 600 credits over a period of normally 5 years (and not more than 6 years) or part-time equivalent; the final three years being an approved honours programme of 360 credits, of which 120 credits are at 5000 level and at least a further 210 credits at 3000 and 4000 levels.

Other Information: Direct entry into Level 2000 is possible, in which case credit of 120 credits at level 1000 is given on the basis of school examinations. In the case of students who spend part of the Honours Programme abroad on a recognised Exchange Scheme, the Programme Requirements will be amended to take into account courses taken while abroad.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Biomolecular Science**	**Biomolecular Science (B.Sc. Honours):** **Level 1:** Biology Element: 40 credits including passes in BL1001 and BL1201. Chemistry Element: 20 – 40 credits comprising pass or bypass for CH1001, pass in CH1004 **Level 2:** (120 credits including BL2101, BL2104 and CH2101 and CH2103) or (125 credits comprising BL2007 and passes at 11 or better in BI2201, BI2202, CH2101 and CH2103) **Level 3:** 120 credits comprising Biology Element: BL3001; BL3002; BL3009; BL3010 and Chemistry Element: CH3611, CH3612, CH3613, CH3621, CH3432, CH4613 **Level 4:** 120 credits comprising two of (BL4101, BL4102, BL4103), two of (CH4511, CH4611, CH4612) and either (BL4200 and BL4300) or [BL4200, CH5614 and one of (CH5411, CH5511, CH5612)] or [CH4442, CH5614 and one of (CH5411, CH5513, CH5612)] Chemistry: Direct entry into Level 2000 is possible, in which case 120 advanced standing credits at level 1000 are given. In the case of students who spend part of the Honours Programme abroad on a recognised Exchange Scheme, the Programme Requirements will be amended to take into account courses taken while abroad.
(B.Sc. Honours): **Chemical Sciences**	**Chemical Sciences (B.Sc. Honours Degree):** **Level 1:** 40 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules **Level 2:** 60 credits comprising passes at 11 or better in CH2101 and CH2102 or CH2103 **Level 3:** 120 credits comprising CH3431, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3621, CH3711, CH3712, CH3721 **Level 4:** 120 credits comprising CH4442, 4 from (CH4511, CH4611, CH4612, CH4711, CH4712), CH5411 and 3 from (CH4512, CH4613, CH4713, CH5512-5, CH5612-4, CH5712-5) **Other Information:** This course is aimed at those who like Chemistry and were good at it at school, who want the varied training that a Chemistry Degree gives, but who do not wish to be professional Chemists. Up to 40 credits from the Level 3000 and Level 4000 modules listed above can be replaced with modules from other Schools.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Chemistry**	**Chemistry (B.Sc. Honours):** **Level 1:** 40 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules. **Level 2:** 90 credits comprising passes at 11 or better in CH2101, CH2102 and CH2103 Students may be allowed to enter this Honours programme with CH2101 and one of CH2102 and CH2103, but some extra work may be required. **Level 3:** 120 credits comprising CH3431, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3621, CH3711, CH3712, CH3721. **Level 4:** 120 credits comprising CH4442, CH4461, CH5411, 2 from (CH4511, CH4611, CH4711), 2 from (CH4512, CH4613, CH4713), either CH4612 or CH4712, 1 from (CH5512-5, CH5612-4, CH5712-5). **Other Information:** The Single Honours course is recognised by the Royal Society of Chemistry (RSC) for professional membership
(B.Sc. Honours): **Chemistry and Computer Science, Internet Computer Science, Mathematics**	**Chemistry element of Joint Honours Degree (B.Sc. Honours):** **Level 1:** 40 credits comprising pass or bypass for CH1001, pass in CH1004 **Level 2:** 60 credits comprising passes at 11 or better in CH2101, either CH2102 or CH2103 **Level 3:** 60 credits comprising 3 from (CH3431, CH3512, CH3521, CH3612, CH3711, CH3721), 30 credits from (CH3441, CH3511, CH3611, CH3621, CH3712) **Level 4:** 60 credits comprising CH4442, 1 or 2 from (CH4511, CH4611, CH4612, CH4711, CH4712), 1 or 2 from (CH4512, CH4613, CH4713)
(B.Sc. Honours): **Chemistry and Geoscience**	**Chemistry - Geoscience Joint Degree:** **Level 1:** 40 credits comprising Pass or bypass for CH1001, pass in CH1004 and 40 credits comprising passes in GS1001 and GS1002 **Level 2:** 60 credits comprising passes at 11 or better in CH2101, either CH 2102 or CH2103 and 60 credits comprising passes at 11 or better in (GG2003, GG2004, GS2001, and GS2002) or (GS2011 and GS2012) **Level 3:** 120 credits comprising CH3431, CH3521, CH3711, CH3511, CH3721, CH4512, and GS3004, normally GS3081* and 1 from (GS4083 or GS4084). **Level 4:** 120 credits comprising 3 from (CH4511, CH4611, CH4711, CH4712 and CH5711), CH4448§, CH5515, normally GS4083 or GS4084**, GS4005, GS4010, GS4009, 1 from (GS4088, GG3067, GG3068, GG3069 and GG3082) * With the approval of the Geoscience Adviser of Studies, a student may replace GS3081 and (GS4083 or GS4084) by 2 from GG3067, GG3068, GG3069, GG3082 in semester 2. ** With the approval of the Geoscience Adviser of Studies, a student may replace GS4083 or GS4084 by a second module from the list GS4088, GG3067, GG3068, GG3069 and GG3082 §With the approval of the Directors of Teaching, under some circumstances, students might conduct an integrated 35 credit project, ID4441, combining CH4448 with GS4009 and presenting a single, extended report.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Chemistry with Catalysis**	**Chemistry with Catalysis (B.Sc. Honours):** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules. **Level 2:** 60-90 credits comprising Passes at 11 or better in CH2101 and either or both of CH2102 and CH2103 **Level 3:** 120 credits comprising CH3431, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3621, CH3711, CH3712, CH3721. **Level 4:** 120 credits comprising CH4442, CH4461, CH5411, CH5511, CH5512, 2 from (CH4512, CH4613, CH4713),1 from (CH4511, CH4611, CH4711), either CH4612 or CH4712. **Other Information:** The Single Honours course is recognised by the Royal Society of Chemistry (RSC) for professional membership.
(B.Sc. Honours): **Chemistry with Materials Chemistry**	**Chemistry with Materials Chemistry (B.Sc. Honours):** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004, CH1005, PH1011, PH1012 and MT1002. **Level 2:** 120 credits comprising passes at 11 or better in CH2101, CH2102, CH2104 and either PH2011 or Mt2001. **Level 3:** 120 credits comprising CH3513, CH3711, CH3712, CH3713, CH3714, CH3715, CH3721, PH3002, PH3074 and two other 3000 level modules. **Level 4:** 120 credits comprising CH4442, CH4711, CH4712, CH4452 and a further three 10 credit 4000 or 5000 level modules. .
(B.Sc. Honours): **Chemistry with Medicinal Chemistry**	**Chemistry with Medicinal Chemistry:** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules. **Level 2:** 60-90 credits comprising passes at 11 or better in CH2101 and either or both of CH2102 and CH2103 **Level 3:** 120 credits comprising CH3433, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3613, CH3621, CH3721, CH4613. **Level 4:** 120 credits comprising CH4462, CH4511, CH4611, CH4612, CH5411, CH5611, 2 from (CH5612-4). CH4442. **Other Information:**The Single Honours course is recognised by the Royal Society of Chemistry (RSC) for professional membership.

Degree Programmes	Programme Requirements at:
(B.Sc. Honours): **Chemistry with French^ or German^ or Spanish^** ^also available as 'with Integrated Year Abroad Degrees'	**Chemistry element of Major Degree with French or German (B.Sc. Honours):** **Level 1:** 40 credits comprising pass or bypass for CH1001, pass in CH1004 **Level 2:** 60 credits comprising passes at 11 or better in CH2101 and either CH2102 or CH2103 **Level 3:** 90 credits comprising CH3441, and 70 credits from (CH3431, CH3511, CH3512, CH3521, CH3611, CH3612, CH3621, CH3711, CH3712, CH3721,) **Level 4:** 90 credits comprising CH4442, 5 from (CH4461, CH4511, CH4512, CH5411, CH4611, CH4613, CH4711, CH4713,) **Other Information:**The BSc.degree is recognised by the Royal Society of Chemistry (RSC) for professional membership.
(B.Sc. Honours): **Chemistry with Pharmacology**	**Chemistry with Pharmacology (B.Sc. Honours):** **Level 1: Chemistry element:** 40 credits comprising a pass or bypass for CH1001, pass in CH1004 and 2 other level 1000 modules. Biology element**:** Passes in or exemption from BL1001, BL1201. Passes in or exemption from BL1003 and BL2007 are also required for entry to all Honours courses in the School of Biology **Level 2:** Chemistry element: 60 credits comprising passes at 11 or better in CH2101, CH2103 Biology element: 60 credits comprising BL2101 and BL2104 **Level 3:** 80 credits comprising CH3433, CH3512, CH3612, CH3621, CH3613, CH3721, 2 from (CH3441, CH3511, CH3611, CH3712) and 40 credits from BL3004, BL3007 **Level 4:** 50 credits comprising CH4447,CH4462, and 70 credits from CH4511-2, CH4611-3, CH4711-3, CH5411, CH5611-4 **Other Information:** The Single Honours course is recognised by the Royal Society of Chemistry (RSC) for professional membership. The project (CH4447) will be supervised jointly by staff from Chemistry and Biology.
(M.Chem. Honours): **Chemistry (M.Chem) 5 years**	**Chemistry (M.Chem.) Degree:** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules **Level 2:** 90 credits comprising Passes at 15 or better in CH2101, CH2102 and CH2103 **Level 3:** 120 credits comprising CH3431, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3621, CH3711, CH3712, CH3721. **Level 4:** 120 credits comprising CH4442, CH4511, CH4512, CH4611, CH4613, CH4711, CH4713, CH5411, 1 of (CH4612, CH4712) **Level 5:** 120 credits comprising CH5461, CH5441, CH5511, CH5611, CH5711, 4 from (CH5512-5, CH5612-4, CH5712-5). **Other Information:** The M. Chem.degree is recognised by the Royal Society of Chemistry (RSC) for professional membership.

Degree Programmes	Programme Requirements at:
(MChem Honours) **Chemistry with Medicinal Chemistry (M.Chem) 5 years**	**Chemistry with Medicinal Chemistry (M.Chem)** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules **Level 2:** 60 credits comprising passes at 15 or better in CH2101 and CH2103 **Level 3:** 120 credits comprising CH3433, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3613, CH3621, CH3721, CH4613 **Level 4:** 120 credits comprising CH4444, CH4511, CH4512, CH4611, CH4711, CH5612, CH5411 **Level 5:** 120 credits comprising CH5441, CH5462, CH5511,2 from (CH5512, CH5513, CH5514), CH5611, CH5613, CH5614, CH5615
(M.Chem. Honours): **Chemistry with Medicinal Chemistry and External Placement (M.Chem.) 5 years**	**Chemistry with Medicinal Chemistry and External Placement (M.Chem):** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules **Level 2:** 60 credits comprising passes at 15 or better in CH2101 and CH2103 **Level 3:** 120 credits comprising CH3433, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3613, CH3621, CH3721, CH4613 **Level 4:** 120 credits comprising CH4441, CH4451. **Level 5:** 120 credits comprising CH5411, CH5441, CH5462, CH5511, CH5611, CH5615, 3 from (CH5513, CH5612-4). **Other Information:** The M. Chem.degree is recognised by the Royal Society of Chemistry (RSC) for professional membership**.**
(M. Chem. Honours): **Chemistry with External Placement (M.Chem) 5 years**	**Chemistry with External Placement (M.Chem) 5 years:** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules **Level 2:** 90 credits comprising passes at 15 or better in CH2101, CH2102 and CH2103 **Level 3:** 120 credits comprising CH3431, CH3441, CH3511, CH3512, CH3521, CH3611, CH3612, CH3621, CH3711, CH3712, CH3721, **Level 4:** 120 credits comprising CH4441, CH4451. **Level 5:** 120 credits comprising CH5411, CH5441, CH5461, CH5511, CH5611, CH5711, 3 from (CH5512-5, CH5612-4, CH5712-5). **Other Information:** The M. Chem.degree is recognised by the Royal Society of Chemistry (RSC) for professional membership.

Degree Programmes	Programme Requirements at:
(M.Chem. Honours): **Chemistry with French (M. Chem.) 5 years**	**Chemistry with French (M Chem Honours) (5 year degree) :** **Level 1:** 120 credits comprising pass or bypass for CH1001, pass in CH1004 and 4 other level 1000 modules **Level 2:** 90 credits comprising passes at 15 or better in CH2101 and CH2102 or CH2103 **Level 3:** 90 credits comprising CH3441, and 70 credits from (CH3431, CH3511, CH3512, CH3521, CH3611, CH3612, CH3621, CH3711, CH3712, CH3721) **Level 4:** 90 credits from CH4441 **Level 5:** 90 credits comprising CH5411, CH5441, CH5461 and 30 credits from (CH5511-5, CH5611-4, CH5711-5). **Other Information** The M. Chem.degree is recognised by the Royal Society of Chemistry (RSC) for professional membership.
(M.Sci. Honours): **Chemistry and Physics (M.Sci. Honours) 5 year Degree**	**Chemistry element of Chemistry-Physics M.Sci. Degree:** **Level 1:** 40 credits comprising a pass or bypass in CH1001, CH1004 **Level 2:** 60 credits comprising passes at 15 or better in CH2101 and either CH2102 or CH2103 or CH2104 **Level 3:** 120 credits comprising CH3431, CH3441, CH3511, CH3512, CH3611, CH3711, CH3712, CH3721,CH4711, CH4712, CH4713 **Level 5:** 40 credits from CH5441 or 45 credits from PH5101, at least 30 credits from CH5411, CH5512, CH5514, CH5515, CH5712-CH5715
(M.Sci Honours): **Materials Science**	**Materials Science M.Sci. Degree:** **Level 1:** 120 credits comprising a pass or bypass in CH1001, CH1004, CH1005, PH1011, PH1012 and MT1002 **Level 2:** 120 credits comprising passes at 11 or better in CH2101, CH2102, CH2104 and either MT2001 or PH2011 **Level 3:** 120 credits comprising CH3513, CH3711, CH3712, CH3713, CH3714, CH3715, CH3722, CH4711, CH4712, PH3002 and PH3074. **Level 4:** 120 credits comprising CH4441, CH4452 **Level 5:** 120 credits from CH5441, CH5515, CH5712, CH5713, CH5716 , CH5717, CH5718, PH5208

Modules

Interdisciplinary (ID) Modules

This School contributes to the following inter-disciplinary modules – **SD1002 Sustainability: ensuring our common future (Section 22)** and **ID2003 Science Methods (Section 23).**

Chemistry (CH) Modules

CH1001 Foundation Chemistry

Credits: 20.0 Semester: 1

Prerequisites: Higher Chemistry or A-level Chemistry.

Description: This module provides a sound foundation in the basic principles of chemistry. Lectures will deal with a range of topics including atomic structure, ionic and covalent bonding, determination of molecular structure, metals and non-metals and their simple compounds, states of matter, and energy changes during reactions. The laboratory work involves some basic chemical techniques and includes examples of synthesis and measurement.

Class Hour: 11.00 am and 2.00 - 5.00 pm on one afternoon

Teaching: Five lectures and one 3 hour practical

Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

CH1002 Chemistry, People and the Environment

Credits: 20.0 Semester: 1

Prerequisites: Higher Chemistry or A-level Chemistry

Description: This module aims to show the tremendous impact that chemistry has on everyone's life. The aim is to make students aware of the importance of chemicals and the consequences for society of environmental changes, the effect on the earth's resources etc. It is a general course of interest to all students. Topics such as organic raw materials, energy and fuels, chemistry in food production and in medicine, case studies of selected elements, environmental chemistry, forensic chemistry and the impact of solving the structure of the human genome are discussed. The laboratory work involves some basic chemical techniques and includes examples of synthesis and measurement.

Class Hour: 12.00 noon and 2.00 - 5.00 pm on one afternoon

Teaching: Five lectures and one 3 hour practical

Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

CH1004 Organic and Biological Chemistry

Credits: 20.0 Semester: 2

Prerequisites: Higher Chemistry, A-level Chemistry or CH1001

Description: This module provides the groundwork of basic organic chemistry and biological chemistry. The organic chemistry course covers the synthesis, properties and reactions of simple organic compunds. Chirality and stereochemistry along with NMR, IR and mass spectrometry are covered at an elementary level. The chemistry of carbohydrates, lipids, amino acids, peptides and proteins is discussed along with topics such as co-ordination chemistry, transition metals and metalloproteins. The pH of acids, bases, salts and buffer solutions is discussed. Laboratory work covers organic synthesis, spectroscopic and chromatographic methods of analysis along with some physicochemical measurements. A group exercise leads to the production of a poster.

Class Hour: 11.00 am and 2.00 - 5.00 pm on one afternoon

Teaching: Five lectures and one 3 hour practical

Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

CH1005 Modern Materials

Credits: 20.0 Semester: 2

Prerequisites: Higher Chemistry or A-level Chemistry.

Description: This module introduces students to the wide range of materials used today. Students will learn how structure and properties are related for materials such as metals, alloys, ceramics, semiconductors, polymers, composites etc. The module will be of particular interest to students of Physics and Geology as well as to Chemists. The laboratory work incorporates studies of materials and measurements of properties of materials met in lecture courses.

Class Hour: 10.00 am and 2.00 - 5.00 pm on one afternoon

Teaching: Five lectures and one 3 hour practical

Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

CH1006 The Origins of Life on Earth and in the Cosmos

Credits: 20.0 Semester: 2

Prerequisites: Higher Chemistry, A-level Chemistry

Description: This module will investigate the basic chemistry behind the age-old questions of how life arose on earth and in the Cosmos. The key events and questions surrounding the Origin of Life problem will be discussed introducing the student to the basic science necessary to understand and probe the questions raised. The interconnection between chemistry and biology at the most fundamental level is emphasised and is used to assess critically the emergent hypotheses of chemical evolution.

Class Hour: 12.00 noon and 2.00 – 5.00 pm on one afternoon.

Teaching: Four lectures, one tutorial and one 3-hour practical class.

Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

CH1201 Introductory Organic Chemistry

Credits: 10.0 Semester: 1

Prerequisites: Direct entry into Level 2000

Anti-requisites: CH1004, CH2201

Description: This module provides an introduction to Organic Chemistry with an emphasis on functional group chemistry. Reactions are rationalised by consideration of reaction mechanisms. The concepts of stereochemistry and of spectroscopic methods of structure determination are introduced.

Class Hour: 9.00 am

Teaching: Four lectures and one tutorial

Assessment: 1 Hour Examination = 100%

Re-Assessment: 1 Hour Examination = 100%

CH2101 Chemistry & Environmental Chemistry

Credits: 30.0 Semester: 1

Prerequisites: Advanced Higher, A-level or CH1001, CH1004

Description: The module includes lectures on transition-metal chemistry, atmospheric chemistry, kinetics of reactions in the gas phase and in solution, bonding and selected topics in organic chemistry. The laboratory component includes practical training in both analytical and environmental chemistry.

Class Hour: 11.00 am Monday, Wednesday, Thursday and Friday and two afternoons 2.00 – 5.00 pm.

Teaching: 4 hours of lectures, 6 hours of laboratories, tutorials and workshops

Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

CH2102 Chemistry & Materials Chemistry

Credits: 30.0 Semester: 2

Prerequisites: CH1001, CH1004 or CH2101

Description: The module includes lectures on structural chemistry, main-group chemistry, organic materials chemistry, zeolites and microporous solids and an introduction to quantum chemistry. The laboratory component includes practical training in both chemical measurements and materials chemistry.

Class Hour: 11.00 am Monday, Wednesday, Thursday and Friday and two afternoons 2.00 - 5.00 pm.

Teaching: 4 hours of lectures, 6 hours of laboratories, tutorials and workshops

Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

CH2103 Chemistry & Medicinal Chemistry

Credits: 30.0 Semester: 2

Prerequisites: (CH1001, CH1004) or CH2101 (+ CH1201 if Direct entrant to Level 2000)

Anti-requisite: CH2104

Description: The module includes lectures on organic chemistry, chemical equilibria and thermodynamics, metals in biology, natural product chemistry, medicinal chemistry, and drug design. The laboratory component includes practical training in both synthetic and medicinal chemistry.

Class Hour: 12 noon Monday, Wednesday, Thursday and Friday and two afternoons 2.00 – 5.00 pm.

Teaching: 4 hours of lectures, 6 hours of laboratories, tutorials and workshops

Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

CH2104 Chemistry & Semiconductor Science

Credits: 30.0 Semester: 2

Prerequisites: (CH1001, CH1004) or CH2101 (+CH1201 if Direct entrant to Level 2000)

Anti-requisite: CH2103

Description: The module includes lectures on organic chemistry, chemical equilibria and thermodynamics, and various aspects of semiconductor science. The laboratory component includes practical training in both synthetic and physical chemistry.

Class Hour: 12 noon Monday, Wednesday, Thursday and Friday and two afternoons 2.00 – 5.00 pm

Teaching: 4 hours of lectures, 6 hours of laboratories, tutorials and workshops

Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 40%, 3 Hour Examination = 60%

CH2201 A First Course in Organic Chemistry

Credits: 20.0 Semester: 1

Prerequisites: Available to non-graduating students only

Anti-requisites: CH1004, CH1201

Description: This module is an introductory course in Organic Chemistry. It covers aspects of structure, bonding and stereochemistry in Organic Chemistry. The syllabus includes the chemistry of alkanes, simple cycloalkanes, alkenes and alkynes together with functional group chemistry, largely that of singly-bonded functional groups. The chemistry is discussed and rationalised with reference to reaction mechanisms. The lecture course is complemented by a laboratory course.

Class Hour: 9.00 am

Teaching: Four lectures, two seminars, one tutorial, one or two practical classes. In addition a total of 3 or 4 half day visits to hospitals.

Assessment: Continuous Assessment = 40%, 2 Hour Examination = 60%

Re-Assessment: Continuous Assessment = 20%, 2 Hour Examination = 80%

The details of the Honours modules – that is 3000, 4000 and 5000 level modules – which relate to the programmes listed in this section, are available in the Honours Course Catalogue.