

MSc Programmes Information Guide 2017-18

MSc Chemistry by Research
MSc Instrumental Analytical Chemistry
MSc Chemistry
MSc Electrochemistry

Disclaimer:

The information contained within your programme handbook is designed to provide key information applicable to you and your programme during the 2017/18 academic year. It is designed to complement the University's Student Portal. You can access the Portal by logging on to [SUSSED](#), using your user name and password, and clicking on the Students tab in the top navigation bar. It is important that you make use of these resources as they support the regulations relating to your obligations and that of the University while you are a student at the University of Southampton. It also provides helpful information on matters such as housing, finance, leisure, healthcare, and support facilities.

The information contained within this handbook, is as far as possible, accurate and up-to-date as at the start of the academic year to which it relates. However, the Faculty reserves the right to make changes to the handbook during the academic year. The Faculty will use all reasonable efforts to deliver advertised programmes and other services and facilities in accordance with the descriptions set out in the prospectuses, student handbooks, welcome guides and website. It will provide you with the tuition and learning support and other services and facilities so described with reasonable care and skill.

The Faculty undertakes a continuous review of its programmes, services, and facilities to ensure quality enhancement. The Faculty, therefore, reserves the right if it considers it to be necessary:

- to alter the timetable, location, number of classes, content or method of delivery of programmes of study and/or examination processes, provided such alterations are reasonable;
- to make reasonable variations to the content and syllabus of programmes of study (including in relation to placements);
- to suspend or discontinue programmes of study (for example, because a key member of staff is unwell or leaves the University);
- to discontinue programmes of study or to combine or merge them with others (for example, because too few students apply to join the programme for it to be viable).

The information contained in this booklet is available, upon request, in large print, Braille, on audio tape and on disc, as well as other languages. For further information please contact: Faculty Student Office via e-mail pgtadmin@soton.ac.uk

Contents

1.	Welcome	5
2.	Contact Information	5
2.1.	Important contacts	5
2.2.	Academic staff.....	5
2.3.	Other useful contacts	5
3.	Dates & Timetables.....	6
4.	MSc Chemistry by Research: Programme Information.....	7
4.1.	Supervisor.....	9
4.2.	Training Needs Analysis and Personal Development Planning (PDP).....	9
4.3.	Research and Transferable Skills Training	9
4.4.	Progress Monitoring	9
4.5.	Quarterly Reports	10
4.6.	Dissertation Completion Deadline and Examination	10
4.7.	MSc Chemistry by Research: Modules	10
5	MSc Instrumental Analytical Chemistry: Programme Information.....	11
5.1	MSc Instrumental Analytical Chemistry: Modules.....	12
6	MSc Electrochemistry: Programme Information.....	12
6.1	MSc Electrochemistry: Modules	13
7	MSc Chemistry: Programme Information	14
7.1	MSc Chemistry: Modules	14
8	Information common to the taught MSc(s).....	15
8.1	Programme Structure.....	15
8.2	The Taught Component.....	16
8.2.1	Change of Module	17
8.2.2	Teaching timetables	17
8.3	The research project	17
8.4	Progression	18
8.5	Advice support & resources	18
8.5.1	Support within Chemistry.....	18
8.5.2	Faculty student office	19
8.5.3	Access to staff.....	19
8.5.4	Support within the University.....	19
8.5.5	Working out of hours.....	19
8.6	Programme evaluation.....	20
8.6.1	Internal evaluation.....	20
8.6.2	External evaluation.....	20

8.6.3	Student views & representation.....	20
8.6.3.1	Staff student liaison committee	20
8.6.3.2	Module survey	20
9	Academic Regulations	21
10	Health & Safety.....	21

1. Welcome

We welcome you to Chemistry in the Faculty of Natural and Environmental Sciences here at the University of Southampton. Chemistry aims to provide students with a stimulating environment in which to learn and acquire skills relevant to a scientific career. We are here to support you during your MSc and we will work hard to ensure that you achieve the very best of your abilities. The work at times will be hard, but the rewards will be great, including employability and your own personal development.

This handbook is intended to provide a convenient source of information for MSc students enrolled within Chemistry. Please take the time to read it carefully and consult it as required during the year. We recommend that you familiarise yourself with the overall content of this handbook, particularly the section on Safety in Chemistry.

Once again, we extend you a warm welcome and hope that you will find your time with us rewarding.

2. Contact Information

2.1. Important contacts

MSc Programme Coordinator

Dr Guy Denuault Phone: 0238059 2154 Room No: 29/6029 Email: G.Denuault@soton.ac.uk

MSc Chemistry/MSc Chemistry by Research/ MSc Electrochemistry

Dr Guy Denuault Phone: 0238059 2154 Room No: 29/6029 Email: G.Denuault@soton.ac.uk

MSc Instrumental Analytical Chemistry:

Dr Neil Wells Phone: 0238059 3593 Room No: 30/1065 Email: njw3@soton.ac.uk

Dr Simon Coles Phone: 0238059 6721 Room No: 30/3043 Email: S.J.coles@soton.ac.uk

Senior Administrative Officer:

Mrs Katie Tucker Phone: 0238059 8624 Room No: 85/2043 Email: pgtadmin@soton.ac.uk

If you have a query and wish to contact your supervisor in Chemistry, you can contact them by e-mail or ring their extension number. If there is no reply and you also cannot make contact through e-mail, please contact one of the Administrative support staff in the Faculty Student Office (see above). When using e-mail, the suffix after initials should be @soton.ac.uk. The telephone extension numbers listed can be reached from internal University phones; to reach the same numbers from an external phone, please use the prefix "023 8059" plus the last four digits of the extension number.

2.2. Academic staff

Head of Chemistry

Prof Gill Reid Phone 0238059 3332 email G.Reid@soton.ac.uk

Director of Programmes

Prof Andrew Hector Phone 0238059 4125 email A.L.Hector@soton.ac.uk

Faculty Academic Registrar

Gina Armfield Phone 0238059 5069 email R.S.Armfield@soton.ac.uk

Team Leader Chemistry (Student Administration, Assessment, Curriculum & Quality Assurance)

Joanne Lawford Phone 0238059 4324 email Jb26@soton.ac.uk

Visit the Chemistry web pages for a [complete list of Chemistry staff](#).

2.3. Other useful contacts

The telephone extension numbers listed below can be reached from internal University phones; to reach the same numbers from an external phone, please use the prefix "023 8059" plus the last four digits of the extension number.

	Extension
Accommodation Office	29599
Money Matters	29599
Alumni Relations Office	22747
Bicycle Storage	25981
Campus Bookshop (John Smiths)	Shop 023 8058 6730
Career Destinations	23501
Counselling Service	23719
Day Nursery	23465
Disability Support	27726 / 26831
Dyslexia Support	22759
Emergency (24/7) (fire, police, etc.)	(Internal) 23311, (External) 91-999
Emergency (24/7) Central Control Unit	22811 / 22822 / 02380 558477
Enrolment Helpline	28888
Erasmus	22473
Examinations Office	22823 / 22383
Equal Opportunities	22945 / 24054
Highfield Health	25545
ISolutions Helpline	Highfield: 25656 NOCS: 26197
Library (Hartley)	Hartley: 22189, NOCS: 26116
Lost Property	22778
Nightline (2000-0800 hrs)	25236
Operator	02380 595000
Security	22828
Jubilee Sports Centre	22119
Students' Union Advice & Information Centre	22085
Student Services Centre	29599
Student Fees Office	29599
Student Funds Office	23287
University Health Service	27531/23539
University Reception Office	23000
Uni-link	25974

3. Dates & Timetables

Master degrees involve one year of full time study, we therefore expect you to be available for some additional activities (e.g. skills training, workshops) outside the Undergraduate teaching terms list here. Full list of details of additional activities are provided as your course progresses.

Key dates are listed on the following web page: www.southampton.ac.uk/uni-life/key-dates.page

Detailed timetables including teaching week numbers are provided on the following web page: <https://timetable.soton.ac.uk/>

Academic Year 2017/18

- Freshers': 23 September - 6 October 2017
- Semester 1: Thursday 28 September 2017 - Saturday 27 January 2018
- Semester 2: Monday 29 January 2018 - Saturday 16 June 2018
- Christmas vacation: Sunday 17 December 2017 - Sunday 7 January 2018
- Easter vacation: Sunday 18 March 2018 - Sunday 15 April 2018

University closure days 2017/18

In addition to the regular public holidays, the University will be closed on the following days:

- Wednesday 27 - Friday 29 December 2017
- Tuesday 2 January 2018
- Tuesday 3 - Wednesday 4 April 2018

Exam dates 2017/18

<https://www.southampton.ac.uk/studentadmin/assessment/exam-timetables/exam-dates.page>

- Semester 1 exams: Monday 15 January - Friday 26 January 2018 (but possibly including Saturday 20 January)
- Semester 2 exams: Monday 21 May - Friday 8 June 2018 (excluding Bank Holiday Monday 28 May but possibly including Saturday 26 May and 2 June)
- Supplementary exams: Monday 20 August - Friday 31 August 2018 (excluding Bank Holiday Monday 27 August but possibly including Saturday 25 August)

Dates specific to the MSc programmes in Chemistry

- Feedback Session with MSc External Examiners - Mid July 2018 (date to be confirmed). All MSc students must attend.
- Submission of project dissertation (all MSc programmes): Tuesday 11 September 2018.

Graduation 2017-2018

- Winter Graduation Ceremony - December 2018, (date to be confirmed)
- Summer Graduation Ceremony – July 2019, (date to be confirmed)

4. MSc Chemistry by Research: Programme Information

The objective of the MSc Chemistry by Research in the Graduate School of Chemistry is to produce high quality, professional scientists with a sound understanding of chemistry and an enthusiasm to use this knowledge to carry out R & D in academic and/or industrial institutions. Professional scientists are expected to make presentations, write research proposals and reports/papers, plan future experiments on various timescales, provide leadership and manage the work of others, as well as to carry out their own experiments in the laboratory safely with proper regard to the disposal of chemicals. This MSc by Research programme therefore seeks to assist and encourage you to achieve the highest possible standards in all these regards and this is the objective of all components of our training. At the same time, we hope and expect that you will enjoy your period in the Graduate School.

By the end of your MSc by Research programme you should expect:

- To have completed an interesting and novel piece of research which has reached some conclusions of value to fundamental and/or applied science
- To have written a concise, high quality dissertation
- To have a good knowledge of literature relevant to the project
- To have a good understanding of the theoretical background to your project and the techniques you have used
- To have good experimental skills and an adequate knowledge of the instrumentation used in the laboratory
- To understand the procedures set out in the Health and Safety at Work and COSHH legislation to be confident in assessing risks, designing experiments safely and disposing of chemical wastes appropriately
- To be able to manage your project including designing experiments and interpreting the results

- To be able to present clear and concise lectures on your work and to talk knowledgeably to visitors about your project
- To be able to suggest research projects based on your own ideas

You will be allocated a supervisor for your 12 months of study. If you have any particular needs outside normal academic guidance you should discuss them with appropriate support personnel or as soon as possible after the application stage.

The Chemistry Graduate School and your supervisor will provide:

- Courses on many aspects of chemistry
- Opportunities to meet and hear lectures from leading chemists in order to update your knowledge of present day research
- Access to books and journals
- A wide range of modern instrumentation
- Opportunities to present seminars to small groups
- Frequent discussions on your project and encouragement to fulfil your goals

In return, we will expect you to work hard. On a day-to-day basis, we believe that you should:

- Carry out a research programme, guided by your supervisor
- Agree with your supervisor the amount of time to be devoted to the research, skills training and the timing and duration of any holiday periods
- Know what you have done, understand the interpretation of the data (including its shortcomings and highlights) and maintain a neat and informative laboratory notebook, including fully annotated experimental data and appropriate data analysis
- Think about your project, seek new ideas and new experiments and discuss your project regularly with your supervisor and others
- Submit progress reports on your research by the deadlines set out below
- Attend all mandatory safety lectures and obey the Chemistry safety regulations, including writing risk assessments in your laboratory notebook and completing appropriate COSHH assessment forms
- Attend research lectures/courses and transferable skills training as recommended by your supervisor
- Read books and review the literature on a regular basis
- Help maintain your laboratories and keep the School in good health
- Seek help whenever it is needed

We believe that to fulfil these duties it will prove essential to work a full week within Chemistry and to devote some of your spare time to reading and thought. Your supervisor will provide reading materials such as past papers, theses or textbooks and a list of the most important journals relevant to your specialisation. We are not, however, suggesting that your reading should be limited to these books and journals. If you need guidance about your reading, you should discuss the literature with your supervisor.

Chemistry at Southampton has a long tradition of running an annual programme of lectures specifically aimed at extending the MSc student's knowledge in key areas. More recently, University regulations have reflected national recommendations by placing an increasing stress on skills training, in particular transferable skills to supplement the advanced knowledge courses. Therefore MSc by Research students are expected to attend a number of lecture courses in advanced knowledge, skills and, of course, safety during their study.

The Chemistry Graduate School determines training requirements and keeps a balance between the three elements of knowledge, skills and safety by awarding credit points for each course. Students are expected to complete the appropriate assessments to achieve sufficient course credits over the 12 months of MSc study.

Your section may decide that particular courses are mandatory and this will clearly be indicated to students. Otherwise, the choice of courses will be determined by students in consultation with their supervisor. At the beginning of the 12 month programme, MSc students and their supervisors should jointly inform Katie Tucker, in the Faculty Student Office of their choice of courses on the form provided so that the data may be entered into a database.

The relevant module co-ordinator for each course will set an appropriate assessment (for example coursework and/or formal examination). In the case of examined modules (both PG and UG modules), the assessment normally involves the MSc taking the examination paper set for the integrated masters undergraduates which

is at an appropriate level for a Master's degree. Students are given feedback on their assessment by the module co-ordinator as appropriate. The Safety Course is an integral part of the MSc research project and all its components in Semester 1 are mandatory for *all* MSc Chemistry by Research students. The safety induction program will start during the graduate induction days in Chemistry, together with distribution of the Safety Booklet. Follow up lectures will be given on a departmental and Sectional basis and attendance at these will be required.

4.1. Supervisor

Your principal supervisor will meet with you as soon as possible to plan the initial stages of your project, indicating any local requirements such as laboratory housekeeping, timekeeping and appropriate social behaviour. The expected mode and frequency of contact between you and your supervisor will be made clear at this point; in cases where the principal supervisor has more than five students, you should be made aware of other sources of day-to-day advice, e.g. advisor or postdoctoral researchers within the group. The supervisor(s) will normally have been identified before or during admission. An independent advisor will also be assigned to each student.

4.2. Training Needs Analysis and Personal Development Planning (PDP)

The initial induction includes an interview between you and your supervisor(s). At this point, your training needs will be identified in terms of the courses to be taken during the first and second semester. It is recommended that additionally you carry out your own PDP, for example using the framework provided by the Royal Society of Chemistry.

4.3. Research and Transferable Skills Training

The Faculty Student Office will keep a record of the training credit points earned by you. Supervisors will note any training needs that are not provided and report these to the MSc coordinator, who will take action as appropriate to ensure these requirements may be fulfilled in future.

The supervisor is responsible for ensuring that suitable research training is available for the students in their section. The safety courses are compulsory. Your supervisor in liaison with you will decide which courses you should take in each semester and the overall amount of training will be regulated by the MSc credit point system.

4.4. Progress Monitoring

Your progress is monitored and assessed through the following mechanisms:

- Day-to-day contact with supervisor
- Quarterly reports
- Postgraduate Course Assessment
- Exam performance
- Student led presentation
- MSc dissertation

Unsatisfactory Progress: In cases where a prolonged and documented lack of progress suggests that an MSc thesis of sufficient quality will not be produced within the maximum period of candidature, termination of candidature may be recommended. Following an initial written warning from your supervisor, a meeting with the MSc by Research coordinator will be arranged by the supervisor/team to decide how to proceed. Normally a set of objectives/expectations over a defined period (typically 3 months) will be agreed. After this period a meeting of the supervisor/team, student, and an independent member of staff (often the Head of Section or HoGS) will be arranged to monitor progression. Decisions may be made as follows:

- a. Progress now satisfactory – end of procedure
- b. Some progress. New targets set and a further review meeting arranged.
- c. Insufficient improvement. Recommend termination of candidature.

Appeals against termination of candidature follow the normal university procedure: <http://www.calendar.soton.ac.uk/sectionIV/student-appeals.html>

Non-attending students will be deemed withdrawn from the programme and an initial written warning from the supervisor/team will be followed rapidly by termination of candidature.

4.5. Quarterly Reports

Each student is expected to complete a quarterly report following the timetable below.

Please note the following deadlines and descriptions.

Deadline	Description
26/01/2018	2-page document outlining the background to your project and the initial progress in the research.
27/04/2018	4-page document outlining the progress in the research in that quarter.
27/07/2018	6-page document outlining the progress in the research in that quarter AND plans for final stage of the project INCLUDING a 1 page dissertation plan.

Please discuss these with your supervisor.

4.6. Dissertation Completion Deadline and Examination

As part of the MSc each student will produce a dissertation which will be handed in September, typically around the 11th. This will be assessed by the internal independent assessor and an external examiner. This examiner will be assigned to the project in discussion with the advisor. The examiner will assign a mark to the dissertation and will, if necessary, visit the University to perform a viva. This whole process is expected to take 6-8 weeks maximum. The dissertation itself is expected to be ~10,000 words or ~ 50 A4 pages in length. Please follow University guidelines regarding formatting and presentation of this dissertation.

4.7. MSc Chemistry by Research: Modules

http://www.southampton.ac.uk/chemistry/postgraduate/research_degrees/courses/msc_research.page#modules

Optional modules: please select a total of 45 Credits/22.5 ECTS across semesters 1 & 2

Compulsory modules	Co-ordinator	Credits	ECTS
CHEM6086: Research Project This module runs over the 12 months of the programme. Safety sessions delivered in semester 1 and 2 are part of this module. They are compulsory but not contributory.	Dr Guy Denuault Dr David Kinnison	120	60
CHEM6133: Scientific writing and presentation skills for MSc Chemistry This module runs over semester 1 and 2.	TBC	15	7.5
Semester 1 optional modules	Co-ordinator	Credits	ECTS
CHEM6022: Introduction to Electrochemistry	Dr Nuria Garcia Araez	15	7.5
CHEM6094: Advanced Inorganic Chemistry for MChem	Dr Paul Wilson	15	7.5
CHEM6095: Advanced Organic Chemistry	Prof Ali Tavassoli	15	7.5
CHEM6096: Advanced Physical Chemistry	Prof Phil Bartlett	15	7.5
CHEM6123: X-Ray Diffraction – Theory & Application	Prof Simon Coles	15	7.5
CHEM6124: NMR Spectroscopy – Theory & Application	Dr Neil Wells	15	7.5
CHEM6125: Mass Spectrometry – Theory & Application	Dr Neil Wells	15	7.5
CHEM6130: Materials Characterization by X-ray Diffraction	Dr Mark Light	7.5	3.75
CHEM6141: Advanced Topics in Inorganic Chemistry	Prof Andrew Hector	15	7.5
Semester 2 optional modules	Co-ordinator	Credits	ECTS
CHEM6004: Advanced Organic Reactions	Prof Richard Whitby	15	7.5
CHEM6092: Medicinal Chemistry	Prof Peter Roach	15	7.5
CHEM6103: Sustainable Chemistry	Prof Robert Raja	15	7.5
CHEM6106: Functional Frameworks and Porous Materials	Dr Darren Bradshaw	7.5	3.75
CHEM6107: Advanced Main Group Chemistry	Prof Gill Reid	7.5	3.75
CHEM6108: Synthesis of Natural Products and Pharmaceuticals	Prof Bruno Linclau	7.5	3.75

CHEM6109: Advanced Bioorganic Chemistry	Dr Seung Lee	7.5	3.75
CHEM6110: Applications of Electrochemistry	Dr Peter Birkin	7.5	3.75
CHEM6113: Nuclear Magnetic Resonance Spectroscopy	Prof Marcel Utz	7.5	3.75
CHEM6126: Advanced Spectroscopy and its Applications	Dr Russell Minns	7.5	3.75
CHEM6128: Data Driven Science	Prof Simon Coles	7.5	3.75
CHEM6136: Modelling in Electrochemistry	Dr Guy Denuault	7.5	3.75
CHEM6137: Atoms, Molecules and Spins: Quantum Mechanics in Chemistry and Spectroscopy	Prof Malcolm Levitt	7.5	3.75

5 MSc Instrumental Analytical Chemistry: Programme Information

This taught MSc offers an advanced, instrumentation-driven postgraduate education in modern analytical chemistry with some elements in combination with one or more specialist research areas. The programme provides opportunities for you to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the identified areas. Having successfully completed this programme you will be able to demonstrate knowledge and understanding of:

- The fundamental analytical techniques: Mass spectrometry, NMR spectroscopy and X-Ray diffraction (single crystal and powder);
- Other general characterisation techniques (IR & UV spectroscopy, TEM, TG/DSC, CD) and separation science methodology;
- GLP, electronic recording, data management, facility management and exploitation of results;
- Data analysis, experimental design and cheminformatics;
- Planning of a safe working practice, including evaluation of hazards and environmental effects;
- Working within a small team to achieve a common research goal;
- Self-led practical-based research, particularly on characterisation and analytical instrumentation.
- The ways in which it is possible to exploit the results of research.

This programme is particularly focussed on practical techniques and on its completion you will be able to:

- Collect and critically evaluate data of a high standard of quality on a variety of modern analytical instrumentation;
- Maintain modern analytical instrumentation at optimum performance within an analytical facility;
- Demonstrate the ability to select appropriate techniques and procedures
- Demonstrate competence in the planning, design and execution of experiments
- Demonstrate the skills required to work independently and be self-critical in the evaluation of risks, experimental procedures and outcomes
- Use an understanding of the limits of accuracy of experimental data to inform the planning of future work.

This course is designed around an ethos of providing skills and training that would allow you to be equally comfortable exploiting existing characterisation and analytical instrumentation or operating such a facility. To achieve these goals the course has several unique features:

- Innovative course construction that gives equal weighting to each of the three main analytical techniques with a clear focus on both data and facility management;
- The programme is instrumentation-driven throughout with a dedicated education-focussed laboratory (currently X-ray diffraction in collaboration with manufacturers, but planned expansion) and extensive access to the other relevant instrumentation;
- A significant component of the assessment is based on practical skills and real-problem data analysis;
- Industry-standard electronic laboratory notebook recording, as part of Good Laboratory Practice, will be taught and adopted throughout and used as a tool for formative assessment and feedback;
- The group analytical project, undertaken in semester two, in which students gain experience of working as members of a team with clearly defined duties and responsibilities;
- The individual project, undertaken over the summer, offers an opportunity to either focus on one of the primary analytical techniques OR investigate a more collaborative thesis linked to other research interests within chemistry

5.1 MSc Instrumental Analytical Chemistry: Modules

http://www.southampton.ac.uk/chemistry/postgraduate/taught_courses/instrumental_analytical_chemistry.page#modules

Please note, **there are no optional modules in this programme, all modules are compulsory**

Semester 1	Co-ordinator	Credits	ECTS
CHEM6143: Delivering Analytics: From Experiment to Exploitation	Prof Simon Coles	15	7.5
CHEM6123: X-Ray Diffraction – Theory & Application	Prof Simon Coles	15	7.5
CHEM6124: NMR Spectroscopy – Theory & Application	Dr Neil Wells	15	7.5
CHEM6125: Mass Spectrometry – Theory & Application	Dr Neil Wells	15	7.5
Semester 2	Co-ordinator	Credits	ECTS
CHEM6126: Advanced Spectroscopy and its Applications	Dr Russell Minns	7.5	3.75
CHEM6127: Chromatography–Theory & Application	Dr Neil Wells	15	7.5
CHEM6128: Data-Driven Science	Prof Simon Coles	7.5	3.75
CHEM6129: Group Analytical Project	Dr Neil Wells	15	7.5
UOSM6001: Ethics in Science, Engineering, and Technology (Jekyll and Hyde) for Masters and PhD students	Dr Paul Duckmanton	15	7.5
Semester 3	Co-ordinator	Credits	ECTS
CHEM6142: Research Project	Prof Simon Coles	60	30
Safety sessions delivered in semester 1 and 2 are part of this module. They are compulsory but not contributory.	Dr David Kinnison		

6 MSc Electrochemistry: Programme Information

This taught MSc builds upon our international reputation for excellence in research and education in Electrochemistry by offering an advanced, postgraduate education in Electrochemistry from the fundamental principles through to applications in Electrochemical Engineering. The programme provides opportunities for you to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in these areas.

The programme has been developed with reference to the benchmark statements for chemistry developed by the Quality Assurance Agency (2007). Its overall aims are:

- To instil an enthusiasm for electrochemistry, an appreciation of its application in different contexts and to involve you in an intellectually stimulating and satisfying experience of learning and studying;
- To establish an appreciation of the importance and sustainability of the chemical sciences in an industrial, academic, economic, environmental and social context;
- To develop, through an education in chemistry, a range of appropriate generic skills, of value in chemical and non-chemical employment;
- To extend your comprehension of key chemical concepts as applied to Electrochemistry and so provide you with an in-depth understanding of this specialised area of chemistry;
- To provide you with the ability to plan and carry out experiments independently and assess the significance of outcomes;
- To develop your ability to adapt and apply methodology to the solution of unfamiliar types of problems;
- To instil a critical awareness of advances at the forefront of Electrochemistry;
- To prepare you effectively for professional employment or doctoral studies.

The specific aims of the MSc in Electrochemistry, developed with reference to the QA descriptor for higher education qualification at level 7 / Master's degree (2011) are to:

- Provide students with the opportunity to develop advanced knowledge in the arena of Electrochemistry and to critically apply this knowledge to an area of research, which is at the forefront of the discipline;

- Provide students with the opportunity to work with modern electrochemical instrumentation in state-of-the-art laboratories, so that they are able to demonstrate a comprehensive understanding of modern electrochemical techniques applicable to their own research or advanced scholarship;
- Enable students to demonstrate originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge within the discipline of Electrochemistry;
- Foster a deep conceptual understanding of Electrochemistry so that the students can critically evaluate current research and advanced scholarship, evaluate new methodologies, develop critiques, and propose new hypotheses;
- Enable students to pursue a career in Electrochemistry and/or Electrochemical Engineering in either an academic or industrial setting.

6.1 MSc Electrochemistry: Modules

http://www.southampton.ac.uk/chemistry/postgraduate/taught_courses/electrochemistry.page#modules

Optional modules: please select a total of 60 Credits/30 ECTS across semesters 1 & 2

Semester 1 compulsory modules	Co-ordinator	Credits	ECTS
CHEM6022: Introduction to Electrochemistry	Dr Nuria Garcia Araez	15	7.5
CHEM6133: Scientific Writing and Presentation Skills for MSc Chemistry	TBC	15	7.5
This module runs over semester 1 and 2.			
Semester 1 optional modules	Co-ordinator	Credits	ECTS
FEEG6007: Fuel Cells and Photovoltaic systems 1	Dr Carlos Ponce de Leon	15	7.5
CHEM6096: Advanced Physical Chemistry	Prof. Phil Bartlett	15	7.5
SESG6041: Introduction to Energy Technologies, Environment and Sustainability	Dr Patrick James	15	7.5
SESM6032: Sustainable Energy Systems, Resources and Usage	Prof Tom Markvart	15	7.5
CENV6090: Energy Resources and Engineering	Prof AbuBakr Bahaj	15	7.5
CHEM6130: Materials Characterization by X-ray Diffraction	Dr Mark Light	7.5	3.75
CHEM6141: Advanced Topics in Inorganic Chemistry	Professor Andrew Hector	15	7.5
Semester 2 compulsory modules	Co-ordinator	Credits	ECTS
CHEM6134: Introduction to Electrochemistry II	Dr Guy Denuault	15	7.5
CHEM6135: Practical Techniques in Electrochemistry	Dr Nuria Garcia Araez	15	7.5
Semester 2 option modules	Co-ordinator	Credits	ECTS
FEEG6008: Fuel Cells and Photovoltaic systems 2	Dr Carlos Ponce de Leon	15	7.5
CHEM6103: Sustainable Chemistry	Prof Robert Raja	15	7.5
CHEM6104: Supramolecular Chemistry	TBC	7.5	3.75
CHEM6105: Crystallography and Structural Science	Dr Simon Coles	7.5	3.75
CHEM6106: Functional Frameworks and Porous Materials	Dr Darren Bradshaw	7.5	3.75
CHEM6107: Advanced Main Group Chemistry	Prof Gill Reid	7.5	3.75
CHEM6110: Applications of Electrochemistry	Dr Peter Birkin	7.5	3.75
CHEM6111: Nanoscience	Dr Iris Nandhakumar	7.5	3.75
CHEM6126: Advanced Spectroscopy and its Applications	Dr Russell Minns	7.5	3.75
CHEM6128: Data Driven Science	Dr Simon Coles	7.5	3.75
CHEM6136: Modelling in Electrochemistry	Dr Guy Denuault	7.5	3.75
Semester 3	Co-ordinator	Credits	ECTS
CHEM6142: Research Project	Prof Simon Coles	60	30
Safety sessions delivered in semester 1 and 2 are part of this module. They are compulsory but not contributory.	Dr David Kinnison		

7 MSc Chemistry: Programme Information

This taught MSc offers the opportunity to study Chemistry at an advanced level, covering both the traditional core areas of analytical, inorganic, organic, and physical chemistry, as well as more specialist courses aligned to the research groupings of the Department. The programme provides opportunities for you to develop and demonstrate advanced knowledge, understanding, and practical/research skills.

The programme has been developed with reference to the benchmark statements for chemistry developed by the Quality Assurance Agency (2007). Its overall aims are:

- To instil an enthusiasm for chemistry, an appreciation of its application in different contexts and to involve you in an intellectually stimulating and satisfying experience of learning and studying;
- To establish an appreciation of the importance and sustainability of the chemical sciences in an industrial, academic, economic, environmental and social context;
- To develop, through an education in chemistry, a range of appropriate generic skills, of value in chemical and non-chemical employment;
- To extend your comprehension of key chemical concepts and so provide you with an in-depth understanding of specialised areas of chemistry;
- To provide you with the ability to plan and carry out experiments independently and assess the significance of outcomes;
- To develop your ability to adapt and apply methodology to the solution of unfamiliar types of problems;
- To instil a critical awareness of advances at the forefront of the chemical science discipline;
- To prepare you effectively for professional employment or doctoral studies in the chemical sciences.

The specific aims of the MSc Chemistry, developed with reference to the QA descriptor for higher education qualification at level 7 / Master's degree (2011) are to:

- Provide students with the opportunity to develop advanced knowledge and to critically apply this knowledge to an area of research, which is at the forefront of the discipline;
- Provide students with an opportunity to work in state-of-the-art laboratories, so that they are able to demonstrate a comprehensive understanding of how modern chemical techniques and methodologies are applicable to their own research or advanced scholarship;
- Enable students to demonstrate originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge within the discipline;
- Foster a deep conceptual understanding of chemistry so that students can critically evaluate current research and advanced scholarship, evaluate new methodologies, develop critiques, and propose new hypotheses;
- Enable students to pursue a career in chemistry, particularly in research project driven roles, either in an academic or industrial setting.

7.1 MSc Chemistry: Modules

http://www.southampton.ac.uk/chemistry/postgraduate/taught_courses/msc-chemistry.page#modules

Semester 1 compulsory modules	Co-ordinator	Credits	ECTS
CHEM6132: Practical Skills for MSc Chemistry	Prof A Russell & Dr P Wilson	15	7.5
CHEM6133: Scientific Writing and Presentation Skills for MSc Chemistry	TBC	15	7.5
This module runs over semester 1 and 2.			
Semester 1 optional modules			
If you did not complete the Southampton Chemistry BSc, select at least 15 Credits / 7.5 ECTS from Group A, exactly 30 Credits/15 ECTS from Group C and the remainder from Group B to make up a total of 75 Credits / 37.5 ECTS.			
If you completed the Southampton Chemistry BSc, the Group A modules are excluded. Select 45 Credits / 22.5 ECTS from Group B and 30 Credits / 15 ECTS from group C.			
Group A optional modules	Co-ordinator	Credits	ECTS

CHEM6094: Advanced Inorganic Chemistry for MChem	Dr Paul Wilson	15	7.5
CHEM6095: Advanced Organic Chemistry	Prof. Ali Tavassoli	15	7.5
CHEM6096: Advanced Physical Chemistry	Prof Phil Bartlett	15	7.5
Group B optional modules	Co-ordinator	Credits	ECTS
CHEM6123: X-Ray Diffraction – Theory & Application	Prof Simon Coles	15	7.5
CHEM6124: NMR Spectroscopy – Theory & Application	Dr Neil Wells	15	7.5
CHEM6125: Mass Spectrometry – Theory & Application	Dr Neil Wells	15	7.5
CHEM6022: Introduction to Electrochemistry	Dr Nuria Garcia Araez	15	7.5
Group C optional modules	Co-ordinator	Credits	ECTS
CHEM6130: Materials Characterization by X-ray Diffraction	Dr Mark Light	7.5	3.75
CHEM6141: Advanced Topics in Inorganic Chemistry	Prof Andrew Hector	15	7.5
Semester 2 compulsory modules	Co-ordinator	Credits	ECTS
UOSM6001: Ethics in Science, Engineering, and Technology (Jekyll and Hyde) for Masters and PhD students	Dr Paul Duckmanton	15	7.5
Semester 2 optional modules			
If you completed the University of Southampton Chemistry BSC you must not select CHEM6092, CHEM6103, CHEM6137 if you undertook the level 6 equivalent as part of your BSC degree (CHEM3002, CHEM3044 & CHEM3045 respectively)			
Group C optional modules	Co-ordinator	Credits	ECTS
CHEM6004: Advanced Organic Reactions	Prof Richard Whitby	15	7.5
CHEM6092: Medicinal Chemistry	Prof Peter Roach	15	7.5
CHEM6103: Sustainable Chemistry	Prof Robert Raja	15	7.5
CHEM6104: Supramolecular Chemistry	TBC	7.5	3.75
CHEM6105: Crystallography and Structural Science	Prof Simon Coles	7.5	3.75
CHEM6106: Functional Frameworks and Porous Materials	Dr Darren Bradshaw	7.5	3.75
CHEM6107: Advanced Main Group Chemistry	Prof Gill Reid	7.5	3.75
CHEM6108: Synthesis of Natural Products and Pharmaceuticals	Prof Bruno Linclau	7.5	3.75
CHEM6109: Advance Bioorganic Chemistry	Dr Seung Lee	7.5	3.75
CHEM6110: Applications of Electrochemistry	Dr Peter Birkin	7.5	3.75
CHEM6111: Nanoscience	Dr Iris Nandhakumar	7.5	3.75
CHEM6113: Nuclear Magnetic Resonance Spectroscopy	Prof Marcel Utz	7.5	3.75
CHEM6126: Advanced Spectroscopy and its Applications	Dr Russell Minns	7.5	3.75
CHEM6128: Data Driven Science	Prof Simon Coles	7.5	3.75
CHEM6136: Modelling in Electrochemistry	Dr Guy Denuault	7.5	3.75
CHEM6137: Atoms, Molecules and Spins: Quantum Mechanics in Chemistry and Spectroscopy	Prof Malcolm Levitt	7.5	3.75
CHEM6144: Chemistry through the Computational Microscope	Prof Chris Skylaris	15	7.5
Semester 3	Co-ordinator	Credits	ECTS
CHEM6142: Research Project	Prof Simon Coles	60	30
Safety sessions delivered in semester 1 and 2 are part of this module. They are compulsory but not contributory.	Dr David Kinnison		

8 Information common to the taught MSc(s)

8.1 Programme Structure

The MSc programmes Instrumental Analytical Chemistry, Electrochemistry and Chemistry are of 12 months duration. The taught part of the programme is confined within two teaching semesters (Oct. to Jan. followed by Feb. to June). Each semester includes twelve weeks of study followed by two or three weeks of examinations in which any end of module assessments will take place. The research component takes place in semester 3, which runs from June to September (see scheme below).

The programme is delivered in a series of modules. Each taught module range from 3.75, 7.5 to 30 ECTS points (European Credit and Transfer System) or 7.5, 15, 60 CATS points (Credit Accumulation Transfer Scheme). As a rough guide a 7.5 ECTS point module requires 150 hours of work. This would include all work i.e. formal lectures, assignments, revision, examination tutorials etc. plus independent study.

Your theory and skills courses will be confined to the two semester teaching periods mentioned above. The practical phase of your research project will be completed from June until mid-August. It is anticipated that the final weeks of August will involve a concentrated period of dissertation preparation with a very limited amount of laboratory work being completed.

The general safety induction lectures will be given during the graduate induction days, together with distribution of the Safety Booklet. Follow up lectures targeting key areas of Health and Safety will be available and you will be required to attend the ones relevant to your research. You can anticipate that there will be 3-4 more sessions after the safety induction.

These programmes provide three exit points: For a post-graduate certificate you must accumulate a minimum of 60 CATS/30 ECTS points of taught modules. For a post-graduate diploma you must accumulate a minimum of 120 CATS/60 ECTS points of taught modules. For a Master of Science you must accumulate a minimum of 180 CATS/90 ECTS points of which a minimum of 120 CATS/60 ECTS points must be taught modules and 30 ECTS points must be for independent research project.

8.2 The Taught Component

Learning and teaching methods will include:

- Lectures, tutorials, workshops, seminars, and demonstrations delivered by world-leading researchers and educators in the fundamental and applied aspects of electrochemistry;
- Directed reading in terms of summary texts and primary scientific literature;
- Student-led seminars and presentations (verbal and poster) and contributions to regular research group meetings;
- Exposure to technical reports, including literature searches and surveys;
- Self-led, practical research project work;
- Workshops and tutorials designed to deepen your understanding of concepts and to develop your critical thinking;
- Individual practical work;
- Group practical's designed to teach instrumental techniques;
- Regular meetings about research work with the supervisory team, with the lead academic as the key provider of guidance;
- Engagement with written assignments and other activities associated with the coursework component of the subject and skills component of study;
- Revision for written examinations that are a ubiquitous aspect of the MSc qualification.

The programme makes use of a variety of learning and teaching methods including traditional lectures, smaller interactive workshops, interactive skills sessions, taught practical sessions in a teaching laboratory environment and a significant research project to take place under the supervision of an individual member of academic staff or on placement supervised jointly by a named line manager at the placement and an individual member of academic staff from Southampton. All your chemistry and skills centred learning is taken at FHEQ Level 7 (which maps to CHEM6XXX modules). This range of methods is employed as appropriate to each module so as to deliver the programme learning outcomes as a whole and the learning outcomes of each module. A learning outcome map is provided as Appendix 1 to the programme specification document – which is available on SUSSED.

A range of assessment methods is also used including traditional examinations, the submission of coursework including practical reports, presentations, oral examinations, and the submission of a dissertation. The exams will be designed to ensure that you have (a) achieved the learning outcomes of each module and (b) the level of sophistication of your understanding is of an appropriate standard. Coursework will also be designed to test that you have met the learning outcomes specified. The proportion of marks derived from coursework and examinations is clearly stated in the module descriptions and will be that which is judged to most suit the content of the module and learning outcomes. Most scientific modules are assessed by examination while more skills based courses tend towards a higher proportion of coursework. As for the

teaching methods, the assessment methods have been selected to be appropriate for each module, whilst delivering the learning outcomes of the programme as a whole as described below (the numbers reflect the learning outcomes listed in Appendix 1 of the programme specifications):

Examinations: these are used to ensure achievement of increased knowledge and understanding of advanced aspects of chemistry beyond those covered at first-degree level (1), the demonstration of problem solving skills (15), and illustration of independent learning (17).

Past examination papers are available through the following http://sussed.soton.ac.uk/soton/channels/servicetab/follow_link.jsp?l=1086&url=/cp/ip/login?sys=adminweb&url=https://www.adminservices.soton.ac.uk:443/adminweb/jsp/pastPapers/pastPapers.jsp

and also on the Staff Student Liaison Blackboard site under the appropriate heading.

Coursework: the submission of course work, in particular reports pertaining to practical's ensures that good laboratory practice (2, 26), data analysis and experimental design (3, 27, 28, 29), planning of safe working practice (4), problem solving (15), initiative (17), use of databases (20), critical reading (21), communication (23), ability to select appropriate techniques (28), and critical evaluation of results (30) are assessed. Additionally, the completion of the course work for CHEM6133 Scientific writing and presentation skills for Chemistry MSc will ensure that exploitation of research (7), understanding and evaluation of published work (8, 9), and communication with professionals (16) are assessed.

Oral examinations are included as part of CHEM6133 Scientific writing and presentation skills for Chemistry MSc and CHEM6142 MSc Research project as the ability to communicate orally (23) is a key skill.

8.2.1 Change of Module

If, after enrolment, you decide to change an individual module(s), you should:

- Discuss the matter with your tutor;
- Let the module co-ordinators of the old and new modules know,
- **Complete the change of module registration** obtainable from the Faculty Student Office Reception Desk in Building 85 (Level 2).
- Pass the completed and signed form to the Faculty Student Office Receptionist.

Students may not normally change modules after the second week of the Semester in which it is taught.

8.2.2 Teaching timetables

Timetabling of teaching modules is processed electronically. Students can access their own personal timetables via the Student Resources Network which is accessed via: <http://www.sussed.soton.ac.uk>. Enter your ID and password, click on Study Administration.

8.3 The research project

In the third semester you will carry out a research project that will enable you to explore one (or more) of the aspects of electrochemistry covered in the taught part of the course in greater depth. MSc level research projects should realistically offer the opportunity of producing results that would be of a standard to publish in the peer reviewed literature.

Your project will not be assigned to you. Instead you will need to

- Check the research web pages of staff within Chemistry.
- Identify a type/area of Chemistry (Electrochemistry for those on the MSc Electrochemistry) you would like to specialise in.
- Arrange a meeting with the relevant academic staff to discuss the possibility of doing your research project under their supervision. You may approach more than one member of staff.
- Prepare a formal letter of application in which you introduce yourself, indicate your area of interest, and include a CV, etc.... as if you were seeking a research position in a company.
- Inform the MSc coordinator, Dr Guy Denuault and the Senior Administrative Officer, Mrs Katie Tucker, of your project choice and supervisor.

You should have completed your project search and assignment by the end of the autumn term.

A limited number of industry-based research placement opportunities may be available and it may be possible to complete the practical aspects of your research project whilst on placement. An on-site industrial supervisor and a Southampton-based academic supervisor will jointly supervise such placement projects.

During the project preparation stage in the second semester, you will plan the project, in consultation with your academic supervisor, and estimate the time to be spent on each element of the plan. In addition you will carry out a preliminary literature review of your area of research before arriving at a clear judgement of your overall objectives and how they will build on the current level of knowledge in your area of research. You will present an overview containing these elements to your project supervisory team before the end of semester 2, which will be assessed.

During the third semester you will have regular fortnightly meetings with either your supervisor or advisor as you complete your research project. You will write brief six-weekly reports of research progress, which will be assessed in writing by the supervisor and advisor. This will allow your progress to be discussed and reviewed against the objectives for each period. At the end of the research period, you will present an overview of your research findings to your supervisory team and, together with your earlier reports; this will be used to plan your dissertation.

The research component will be assessed on the basis of the practical outcomes of your project work and on your ability to communicate these, and your background understanding, through the authorship of a scientific dissertation. Two independent academics from within the University of Southampton will assess the written thesis independently and then conduct a *viva voce* (verbal examination).

You will also be required to maintain a laboratory notebook and to create a suitable archive and organisation of your research results. These primary sources of information will be reviewed throughout the duration of your research project and will be part of the final assessment.

You will be required to produce short reports describing your progress throughout the summer. These will be reviewed and feedback provided in a suitable timeframe to allow for your development in advance of the next report. The outcomes of these reviews do not contribute to the final grade. However, past experience clearly demonstrates that a high standard of performance in these regular reports greatly assists in the preparation of a high quality final dissertation.

8.4 Progression

The University regulations governing progression, determination and classification of results for standalone masters can be found in the University Calendar (Section IV – General Regulations) <http://www.calendar.soton.ac.uk/sectionIV/progression-regs-standalonemasters.html>

8.5 Advice support & resources

There are systems for the support of student learning in Chemistry as well as available from central University facilities. Throughout the degree students with special learning requirements are supported and their ability to complete the degree in full is managed by making appropriate reasonable adjustments to our infrastructure and methods of delivery and assessment.

We provide a friendly and supportive environment for you to pursue your studies. This is managed in a system that provides academic support for all students utilising the expertise of all the staff as appropriate. The various people and systems-based support available are noted below.

8.5.1 Support within Chemistry

In Southampton Chemistry you will:

- Receive an induction that will introduce you to all our teaching and learning resources you will interface with during your degree as well as ensuring you understand the regulations which govern your study;
- Have a personal research supervisor who will advise on choice of taught modules and can provide pastoral support (*this is the primary source of support for your research*);
- Have an allocated academic advisor who can provide an alternative and independent view on your progress. This member of staff will also be your internal examiner at the end of the research programme;
- Receive individually tailored guidance from academic staff delivering the taught components of your programme. Each module has an academic coordinator who would be the first point of contact in the event of needing academic support;

- Be able to obtain additional support from the senior staff involved in the MSc Programme. These include the Director of the MSc Programme Coordinator and the Director of Programmes.
- Have a personal e-mail account, web access, specialist software relevant to your work and IT support from the University i-Solutions team;
- Attend group meetings in the selected research group and research seminars given by visiting speakers.

Administrative staff in the Faculty Student Office support both staff and students in the administration of postgraduate teaching within Southampton Chemistry. This is normally your first port of call for issues relating to the administration of your programme (e.g. registration, timetables, module courses, coursework submission, sickness and absence, examinations, etc.).

8.5.2 Faculty student office

The Faculty Student Office is situated in Building 85, Room 2043 which is open 0900-1700. We also have a hot desk room in Chemistry 29/2039 which is open from 10 - 4. Our aim is to make life easier for both students and staff by providing support in the administration of our teaching programmes. Throughout your time as a student, the Faculty Student Office will be your first port of call for much of the information you need.

You should visit the Faculty Student Office for all general queries relating to the administration of your programme (including coursework submissions and collection of feedback, degree change, drop box submissions, receipted coursework submission, inter-Faculty transfer, module registration changes, special considerations requests, sickness self-certification forms, and suspension and withdrawal requests). Please note there are Hyperlinks for these forms via the online version of the [Faculty Handbook](#).

8.5.3 Access to staff

Academic staff are happy to meet students to discuss modules and other academic matters, or otherwise. However, you should be aware that they have contractual obligations to engage in research, as well as teach, and therefore may not be immediately available. Chemistry at the University of Southampton has an excellent research profile and this means that staff will be involved in supervising their research students/staff, running research programmes, and collaborating with national and international colleagues. In addition, the academic staff are required to assist in the administration of Chemistry and the University. Many are also involved with national and international organisations.

8.5.4 Support within the University

The University provides or hosts a wide range of specialist academic and pastoral support services. These include the Library, Computing Services, Careers Destinations, Student Union Advice Centre, Financial Information and Assistance (FIA), Accommodation Team, University Health Service, University Counselling Service, Enabling Services, Early Years Centre, language support, and international student support. Electronic details about these services may be found on the University web site at <http://www.southampton.ac.uk/postgraduate/servicesforstudents/index.shtml> the majority of them are co-located in the Student Services Centre on the Highfield Campus.

Access to learning and teaching support services (see the [Library Academic Skills](#) website). The Library is a major learning resource for everyone at the university and offers multiple facilities including books, workstations, study rooms, individual study areas all with opening hours to accommodate the needs of the whole student community. More details of hard copy and electronic resources are available at <http://www.soton.ac.uk/library/>

8.5.5 Working out of hours

Please note there are strict rules for out-of-hours working (before 8 am and after 6 pm Monday-Friday and at any time on weekends or University closure days).

Dissertations/projects should normally be designed to avoid you having to work out-of-hours. However, if your project supervisor can make a case for it being absolutely necessary for you to be in any non-public area (laboratories etc.) out-of-hours, your supervisor will need to:

- Identify someone to supervise you in person. On no account will you be allowed to work without close supervision.
- Prepare a Risk Assessment, to include the extra risks of working out-of-hours.
- Arrange for the Chemistry Health & Safety Officer, to check and sign off the Risk Assessment.

Submit a Chemistry Building Access Request Form to arrange for your access rights to be amended. This requires a minimum two days' notice so that the University database can be updated. You should not ask Security personnel to let you into any areas out-of-hours. It is serious breach of University regulations to loan your ID card to any other person.

8.6 Programme evaluation

The opinions of the MSc Students are heard through a number of different forums. Termly whole cohort meetings are convened by the Director of MSc programmes who ensures that teaching related issues are diverted to the Staff Student Liaison Committee and that research related issues are directed to the Graduate School. The MSc cohort has representation on the latter but not the former. A general procedure for ensuring that the opinions of this cohort are heard and discussed has been approved by the Chemistry Education and Quality Committee and is incorporated in the appropriate Handbook.

8.6.1 Internal evaluation

- Quinquennial review which requires that programmes and delivery are monitored on a five year cycle (some of which involve scrutiny by external bodies);
- Anonymous student evaluation questionnaires for each module and year of the programme which are analysed by the year co-ordinators (relevant to the taught part of the MSc);
- Student representation on the Chemistry Education and Quality Committee;
- Annual review of the modules via Chemistry Education & Quality Committee and Module Co-ordinators (relevant to the taught part of the MSc);
- Annual peer development of teaching activities, appraisal of academic staff and staff development activity relevant to both teaching and research activities;
- Informal and Formal Examination Boards;
- The Quality Monitoring Enhancement (QME) which is submitted as part of the Faculty (QME) that is subject to scrutiny by a panel comprising academic and professional services staff from across the University;
- Postgraduate Taught Experience Survey (PTES) and iBarometer;

8.6.2 External evaluation

External Examiners who:

- Review examination papers (taught part of the MSc - involving a panel of three academics who also review the undergraduate programmes);
- Review the overall MSc programme (one academic (not included in the panel above)) annually and on the basis of meetings with all current students;
- Can provide viva-voce examination of individual students, if necessary and only in relation to the research part of the MSc programme.
- Provide an annual report to the University.

8.6.3 Student views & representation

Chemistry welcomes your ideas and suggestions about the organisation and content of each of its teaching programmes. There are a number of avenues by which you can transmit your opinions.

8.6.3.1 Staff student liaison committee

To have your opinion heard, you should contact the membership of the Staff Student Liaison Committee (SSLC) which has representation from the student community (two per year group) and academic staff. SSLC has its own Blackboard resource onto which all students are automatically registered. It can be located at chem-ug. The Committee has a joint chair, one from the staff and one from the student community. The student chair is elected each year from the student membership of the SSLC. Election of representatives is managed through the Students' Union (www.susu.org/education/) who co-ordinate the student voice on Faculty committees to enable the student voice to be heard.

8.6.3.2 Module survey

The Faculty aims to consult with and to provide opportunities for all students and staff to make their views known.

You are encouraged to offer your comments/suggestions to members of staff and feedback is requested for each module undertaken.

Module surveys are undertaken at the end of each Semester. Results to previous surveys are found via the Student Feedback sites on Blackboard.

9 Academic Regulations

The Academic (Programme) Regulations for the MSc Chemistry by Research, MSc Instrumental Analytical Chemistry, MSc Electrochemistry & MSc Chemistry programmes can be found at: <http://www.calendar.soton.ac.uk/sectionIX/sectIX-index.html>

10 Health & Safety

Internal Emergency number	999 or 3311
Public Emergency Services	91-999 or 91-112

Although the Head of Chemistry is ultimately responsible for Health and Safety within the Centre, **the person immediately responsible for your safety is YOU!**

Chemistry, given its use of laboratories and chemicals, has its own Health and Safety Rules. You will be provided with clear guidance about the Health and Safety issues in the Academic Unit in a booklet called 'Safety Notes for Postgraduates' which you will be given on arrival. You are expected to read and act upon these Notes and will be required to sign to indicate that you have read and understood them. Advice and further information on any safety matter can be obtained from the Chemistry Safety Officer and also from the Laboratory Managers who will support you during your practical courses.

Like all public spaces and workplaces the University has a [Health and Safety Policy](#) which describes how the wellbeing of students, staff and the general public are protected while using University facilities. You will come across guidelines applying to your Halls, the Library, and open space on campus, transport around campus, the Sport Centres and the facilities in the Student Union.

Your Personal Safety: The [Students' Union](#) has a dedicated support page with safety tips. [Night buses](#) are also organised to take students home safely after a night out on campus. The University is covered by the [Portswood Sector](#) of Hampshire Constabulary.

Faculty Guide & Regulations

Faculty of Natural & Environmental Sciences

Section 2

Disclaimer

This information is issued on the condition that it does not form part of any contract between the University of Southampton and any student. The information given has been made as accurate as possible at the time of publication, but the University reserves the right to modify or alter, without any prior notice, any of the contents advertised. It should therefore be noted that it may not be possible to offer all modules or components of a programme in each academic session.

This handbook is available in alternative formats on request.

The information contained within your programme handbook is designed to provide key information applicable to you and your programme during the 2017/18 academic year. It is designed to complement the University's Student Portal. You can access the Portal by logging on to [SUSSED](#), using your user name and password, and clicking on the Students tab in the top navigation bar. It is important that you make use of these resources as they support the regulations relating to your obligations and that of the University while you are a student at the University of Southampton. It also provides helpful information on matters such as housing, finance, leisure, healthcare and support facilities.

Contents

Disclaimer	2
General Information	5
1.1 Your student office.....	5
1.2 How we keep in touch with you.....	5
1.3 Confirmation of your student enrolment status.....	6
2. Supporting you through your studies	6
2.1 Supporting students with disabilities, mental health conditions or specific learning difficulties.....	6
2.2 The role of your Personal Academic Tutor.....	6
2.3 Student buddying and mentoring schemes.....	6
2.4 What to do if you are ill.....	6
2.5 External factors affecting your attendance or performance in your studies.....	7
2.6 Special considerations.....	7
2.7 Fitness to Study.....	7
2.8 Suspending your studies.....	7
2.9 Withdrawing from your studies.....	7
3. Your safety	7
3.1 Faculty Health and Safety Policy.....	7
3.1.1 Your Personal Safety.....	7
4. Your Academic Programme	8
4.1 The academic year and the programme structure.....	8
4.2 Registration and amendment to optional modules.....	8
4.3 Attendance.....	8
4.4 Additional Costs.....	8
4.4.1 Approved Calculators.....	8
5. Faculty Teaching and Learning Skills	10
5.1 Time management.....	10
5.2 Lectures.....	10
5.3 Use of electronic recording devices or mobile phones in lectures or classes.....	10
5.4 Tutorials/supervisions.....	10
5.5 Independent or Self learning.....	10
5.6 Key skills.....	10
5.7 Faculty Policy on referencing.....	10
5.8 Academic integrity: the University Policy.....	10
6. Assessment and Examinations	11
6.1 Coursework assessment and submission.....	11
6.2 Penalties for late coursework submission.....	11
6.3 Coursework extensions.....	11
6.4 Examination preparation (also see Appendix A).....	11
6.5 Examinations.....	11
6.6 Scaling.....	12
6.7 Illegible exam scripts.....	12
6.8 Coursework and examination feedback.....	12
6.9 Access to coursework/examination scripts.....	12
6.10 Release of results.....	13
6.11 Transcripts.....	13
6.12 Prizes.....	13
6.13 Final assessment.....	13
7. Staff/Student Liaison: getting your voice heard	13
7.1 Module Survey.....	13
7.2 Module Reports.....	13
7.3 Staff Student Liaison Committees.....	13

7.4	Student Representation.....	13
8.	Careers and Employability.....	14
8.1	Excel Southampton Internships.....	14
8.2	Business Innovation Programme.....	14
8.3	Year in Employment.....	14
8.4	Volunteering Bank.....	14
8.5	Employability events within the Faculty.....	14
8.6	Professional Accreditation.....	14
8.7	Curriculum Innovation.....	14
8.8	Programmes with a Minor.....	15
9.	Further study opportunities.....	15
10.	Regulatory Issues.....	15
10.1	Academic appeals.....	15
10.2	Student complaints.....	15
10.3	Dignity at work and study.....	15
10.4	Student Discipline.....	15
Appendix A.	16
	Revision Strategy and Examination Techniques.....	16
A.1	Revision strategy.....	16
A.1.1	Final revision programme.....	16
A.1.2	Examination practice.....	16
A.2	Examination techniques.....	16
A.2.1	Before the day.....	16
A.2.2	On the Day.....	16

General Information

Resource	Web link
Faculty website	http://www.southampton.ac.uk/about/departments/faculties/faculty-natural-environmental-sciences.page
Faculty staff information	<p>Professor Rachel Mills, Dean of Faculty R.A.Mills@soton.ac.uk</p> <p>Dr Chris Jackson, Associate Dean Student Experience & Education cwj@soton.ac.uk</p> <p>Centre for Biological Sciences Dr Lex Kraaijeveld, Director of Programmes, A.R.Kraaijeveld@soton.ac.uk</p> <p>Chemistry Professor Andrea Russell, Director of Programmes, A.E.Russell@soton.ac.uk</p> <p>Natural Sciences Dr Antony Jensen, Director of Programmes, acj@noc.soton.ac.uk</p> <p>Ocean & Earth Science Professor Andy Cundy, Director of Programmes, ??@noc.soton.ac.uk</p> <p>Mrs Gina Armfield, Faculty Academic Registrar, r.s.armfield@soton.ac.uk</p> <p>Student Office: Highfield Building 85, Room 2043 Student Office: Waterfront Building 68, Room 556/03 Centre for Biological Sciences: sobiol@soton.ac.uk Chemistry: sochem@soton.ac.uk Ocean & Earth Science: sosoes@soton.ac.uk Natural Sciences: sonats@soton.ac.uk Postgraduate Taught: pqtadmin@soton.ac.uk Postgraduate Research: pgrsfnes@soton.ac.uk</p>
Programme and module descriptions	<p>Your programme structure (i.e. which modules make up your programme) is available via the on-line programme catalogue via SUSSED</p> <p>To find links to broad generic descriptions of the programmes and modules, follow links to your programme</p> <p>Biological Sciences</p> <p>Chemistry</p> <p>Natural Sciences</p> <p>Ocean and Earth Science</p>

1.1 Your student office

Opening Hours: 0900-1700 term time, 1000-1600 during vacation

Highfield campus: Building 85, Life Sciences Building, Telephone: +44 (0)23 8059 4206, Fax: +44 (0)23 8059 5159

Waterfront Campus: Building 68/566/03, Telephone: +44 (0)23 8059 2011, Fax: +44 (0)23 8059 3059

You should visit the Student Office for all general queries relating to the administration of your programme (including coursework submissions and collection of feedback, degree change, drop box submissions, receipted coursework submission, inter-Faculty transfer, module registration changes, special considerations requests, sickness self-certification forms, and suspension and withdrawal requests). Please note there are Hyperlinks for these forms via the online version of the [Faculty Handbook](#).

1.2 How we keep in touch with you

Email

We will use your University email account to contact you when necessary. We will not use any other email accounts or social networking sites. It is your responsibility to check your University email account regularly and you must not let your inbox exceed your storage limit. Notification that you are due to exceed your storage limit will be sent to your University email account and you should take immediate action as you will be unable to receive further emails once your storage limit has been exceeded.

Written Correspondence

Formal correspondence regarding your programme of study (e.g. suspension, transfer or withdrawal from programme, academic performance (including progression/referral information), issues of academic integrity, student complaints and academic appeals) will be sent to your term-time (TT) or permanent (PM) address listed as active on your student record. You are responsible for advising the University if you change your permanent or

term-time address. The University will not be held accountable if you do not receive important information because you failed to update your student record.

Use of social networking sites

We understand that students are increasingly using social networking sites to interact with members of their student community. You should note that any behaviour that affects other members of the University community or members of the general public in ways which might damage the standing and reputation of the University may be subject to disciplinary action within the scope of the University's Regulations.

1.3 Confirmation of your student enrolment status

The Faculty Student Office can provide you with a certificate to confirm your status as a student (e.g. for bank account opening purposes). Please ensure that you give at least 48 hours' notice of your requirements (longer at peak times such as at enrolment or during the examination periods). Your award certificate will be produced using the legal name data you have provided within your student record. Please make any necessary amendments to your record immediately a change occurs to ensure that your certificate contains accurate information.

In accordance with policy, a scale of fees exists for the provision of certificates, transcripts and award certificates. Please see point 11 '*Transcripts, Certificates and Award Letters*' within the fees section of the University Calendar for a list.

Your award certificate will be produced using the legal name data you have provided within your student record. Please make any necessary amendments to your record immediately a change occurs to ensure that your certificate contains accurate information. Changes are made via Banner Self Service.

2. Supporting you through your studies

2.1 Supporting students with disabilities, mental health conditions or specific learning difficulties

Enabling Services provides a wide variety of support for students who have disabilities, mental health problems or specific learning difficulties. Its expert team can provide advice and support relating to your studies throughout your time here. Please see <http://www.southampton.ac.uk/edusupport/index.page> for further information and contact details.

2.2 The role of your Personal Academic Tutor

The University operates a tutor system to help support and advise students in their academic study. As a student, you can expect to be allocated a Personal Academic Tutor. Your Personal Academic Tutor may or may not be one of the teaching staff you see in the course of your studies, but their role in this context is to provide advice and support to you throughout your study, and to help review your academic progress. You can expect to see your Personal Academic Tutor at key points through your University career and, if you need to, you can contact them more frequently. Sometimes, your Personal Academic Tutor may refer you to other areas for support. They may refer you to individual support services, or to your student office for information, or to a Senior Tutor. The Senior Tutor will have a more specialised understanding of supporting students, and may support you if you have a particular problem. You can also contact the Senior Tutor if you wish to change your allocated Personal Academic Tutor.

The University expects that you will engage with your Personal Academic Tutor, attend the scheduled meetings, respond to messages from your Personal Academic Tutor, and notify your Personal Academic Tutor (or Senior Tutor, if you prefer) if you are experiencing problems which are affecting your performance, attendance or progress in your studies. In particular, you should contact your Personal Academic Tutor if you feel your performance in any forthcoming examinations will be affected by ill health or other special considerations, and check with your Personal Academic Tutor if you plan to cite him/her as a referee for job applications.

2.3 Student buddying and mentoring schemes

University of Southampton faculties and societies provide new undergraduate students with opportunities to liaise with current students who are able to offer advice and guidance based on their own experience as they adjust to living and learning at the University. Some of these opportunities are described as student buddying, family or peer mentoring schemes. Please see your Academic Unit Handbook for specific details.

2.4 What to do if you are ill

It is important that your doctor (as well as your Personal Academic Tutor) is immediately informed of any illness that is likely to affect your studies. If appropriate your GP may inform your Personal Academic Tutor that you are experiencing some health difficulties that may affect your academic performance. This will be done with your consent and you may wish the details of your illness to be withheld from your Personal Academic Tutor, although you should think carefully about this (your tutor will, in any case, respect your privacy). More information can be found in the [General Regulations – Attendance and Completion of Programme Requirements](#).

2.5 External factors affecting your attendance or performance in your studies

We expect you to take responsibility for your studies to ensure that your full academic potential can be realised. However, sometimes difficulties can arise that can affect you.

If you are absent from an examination or other assessment or have other grounds for believing that your studies have been affected by external factors you must bring this to the attention of your Personal Academic Tutor and/or to the Student Office immediately. Whilst we recognise that students can sometimes be reluctant to discuss cultural, sensitive or personal issues, it is essential that you bring problems affecting you to our attention immediately so that we can determine how best to help you.

2.6 Special considerations

If you believe that illness or other circumstances have adversely affected your academic performance, this is known as Special Considerations. If you wish for these to be considered by the Faculty you must complete a [Special Considerations form](#). **It is important that you submit this to your faculty in a timely manner and prior to the Board of Examiners.** All claims must be substantiated by written documentary evidence, for example a medical certificate or GP/consultant letter, self-certification (only accepted in circumstances where it is not possible to obtain any other evidence) or a statement from your Personal Academic Tutor. The purpose of asking for supporting documentation is for you to be able to corroborate the facts of your submission.

All claims will be reviewed by the Special Considerations Board which meets regularly throughout the year. The Student Office will contact you via your University email account to let you know once a decision has been made.

Full details of the University's policy on Special Considerations can be found at <http://www.calendar.soton.ac.uk/sectionIV/special-considerations.html>.

2.7 Fitness to Study

The Fitness to Study policy applies to enable the University to respond appropriately to situations where visible signs of illness, mental health difficulties, psychological, personality or emotional disorders may have a profoundly disturbing impact on the functioning of an individual student and or the wellbeing of others around them. The University has a positive attitude towards those with impairments and is committed to maintaining students' wellbeing. The policy identifies the procedure and support available to both students and staff when a student becomes unwell and/or presents a risk to self and/or others. The Fitness to Study policy can be accessed through the following link: <http://www.calendar.soton.ac.uk/sectionIV/fitness-study.html>

2.8 Suspending your studies

Should you feel that you need to take some time out from your studies, known as [suspending your studies](#), you should first discuss this with your Personal Academic Tutor. A Suspension Request form should be obtained via [Blackboard](#) Student Information Site, completed and returned to the Student Office. Please note that, if you wish, you can suspend your studies in order to undertake an internship or period of industrial training outside of normal vacation time.

2.9 Withdrawing from your studies

If you no longer wish to continue with your studies, a Withdrawal Notification form should be obtained, completed and returned to the Student Office. Further information can be found in the [General Regulations - Transfer, Suspension, Withdrawal and Termination](#).

The Students' Union Advice Centre has developed a [Guide](#) for students.

3. Your safety

3.1 Faculty Health and Safety Policy

Like all public spaces and workplaces the University has a [Health and Safety Policy](#) which describes how the wellbeing of students, staff and the general public are protected while using University facilities. You will come across guidelines applying to your Halls, the Library, open space on campus, transport around campus, the Sport Centres and the facilities in the Student Union.

In addition to this and given the use of laboratories, organised fieldtrips and boat work (depending on your degree programme) clear guidance about health and safety rules will be provided within your programme specific Handbook (Section 1).

3.1.1 Your Personal Safety

The Students' Union has many [safety tips](#), including a section especially for international students. Night buses are also organised to take students home safely after a night out on campus.

[Local Police](#)

The University is covered by the [Portswood Sector](#) of Hampshire Constabulary. PS Stewart Chandler 08450454545 is responsible for the beat for Highfield.

4. Your Academic Programme

4.1 *The academic year and the programme structure*

The structure and modular content provided within the programme specification is specific to your own programme. You can view the most up to date version of the programme specification by accessing the [Unistats website](#) or [SUSSED](#).

The taught components of the programme are delivered in modular form and run over two semesters. The teaching weeks are followed by a two to three week examination period. The semesters overlap the traditional three term structure which still determines the pattern of vacations at Christmas and Easter.

For any given programme a module is either core, compulsory, or optional. The definitions of the first two are provided in the [General Regulations – Regulations and Definitions Applying to Progression for all Credit-Bearing Programmes](#). Your student record will automatically record core and compulsory modules and these must be completed in accordance with the requirements for progression applicable to your programme.

4.2 *Registration and amendment to optional modules*

Most programmes will have a number of optional modules. If applicable you will need to select a certain number of optional modules to complete your portfolio of modules and fulfil the credit points as required for the programme.

Your programme structure can be found via the on-line programme catalogue via [SUSSED](#).

When choosing your options, you are strongly advised to ensure that you have a similar total number of modules in Semester 1 and Semester 2, to maintain a balanced work load throughout the year. Once you have registered your options, it is possible for you make changes but there are restrictions. The substitution of modules is not allowed (i.e. you cannot take an extra module in semester 2 to replace a semester 1 module in which you failed to perform well).

You may request a change to your optional module choice up to the end of week 2 in each semester. You should complete a Change of Module form to specify your request (forms can be obtained from the Student Office). If your optional module choices clash in your timetable, then you will need to amend your optional choice accordingly by contacting the Student Office immediately.

You should regularly check your online student record for details of your registered modules. This is particularly important after you have made any changes and will help to maintain the accuracy of your student record. It will also save time and confusion during the examination period.

4.3 *Attendance*

The [University Attendance Policy details the expectations relating to attendance](#). Please refer to Part 1 of your programme specific handbook for details of how this is monitored locally.

4.4 *Additional Costs*

You may incur additional costs as a result of your programme, for example for materials, field trips or books. General programme costs are located in the programme specification. Modules that are optionally available to select may also include information on module specific costs.

Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at www.calendar.soton.ac.uk.

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. Information on additional costs associated with specific modules can be found under a "Costs" tab for each individual Module Profiles located on the subject specific web-pages (see links below).

In relation to the programme as a whole, details of any additional costs will be specified in Appendix 2 of the programme specification and on the subject specific programme pages on the web pages via [SUSSED](#) under 'Programme specific information'. Some of these are also listed below.

4.4.1 *Approved Calculators*

Candidates may use calculators in the examination room only as specified by the University and as permitted by the rubric of individual examination papers. The University approved models are Casio FX85GT and FX85GT Plus or Casio FX570 (all models) these no longer need to carry the University logo. This means that they can be purchased from any retail outlet. You can also use a Casio FX83ES, GT and Plus which are the older approved models. No other calculator is to be used in the examination room

4.4.2 *Stationery*

You will be expected to provide your own day-to-day stationary items, e.g. pens, pencils, notebooks, etc.) Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.

4.4.3 Textbooks

Where a module specifies core texts these should generally be available on the reserve list in the library. However due to demand, students may prefer to buy their own copies. These can be purchased from any source.

Some modules suggest reading texts as optional background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies. Although not essential reading, you may benefit from the additional reading materials for the module.

4.4.4 Printing and Photocopying Costs Where reasonably possible, coursework such as essays; projects; dissertations is likely to be submitted on line. However, there are some items where it is not possible to submit on line and students will be asked to provide a printed copy. Current University printing costs can be found [here](#)

Please Note: Paper sizes not recognised by the printing devices will prompt you to select the size and then charge a minimum of 50p per black and white copy and a maximum of £1 per colour copy.

You can pay for your printing by using the money loaders or by using print copy payment service by going to www.printcopypayments.soton.ac.uk

Please remember that we are unable to refund any credit that has not been used by the end of your course, so please consider this when topping up your printing/copy account

You will be given a printing allowance per module towards the costs of printing lecture handouts and/or practical scripts.

The [University Print Centre](#) also offer a printing and copying service as well as a dissertation/binding service. Current printing and copying costs can be found [here](#). They also provide a large format printing service, e.g. Academic posters. Details of current costs can be found [here](#)

4.4.5 Fieldcourses

Some programmes may include a fieldcourse(s). For *compulsory* residential fieldcourses accommodation and travel are normally provided. You are usually expected to cover the costs of food and drink, although some courses may include meals. For *optional* fieldcourses, you may be asked to make a contribution to the travel and/or accommodation costs.

Specific details on what additional costs there will be are detailed in the individual module profiles which can be found under the modules tab of the [programmes details](#) of the relevant academic unit.

In addition, some programmes have modules that offer a “one-day” fieldcourse. Normally transport to the location is provided, but you will be expected to cover your food and drink costs for that day.

4.4.6 Study Abroad / ERASMUS Exchange / Placement programmes

Study Abroad: There are some programmes within the Faculty which include Study Aboard as a compulsory part of the programme. There will be additional costs associated with this, for example: health and travel insurance, accommodation and living expenses; travel costs; visa costs. This will vary depending on which country you are travelling to. Specific details on what additional costs there will be are detailed in the individual module profiles which can be found under the modules tab of the [programmes details](#) of the relevant academic unit.

Erasmus Exchange: Subject to the approval of the relevant Exchange Coordinator, the Faculty is also able to offer opportunities for students to undertake a period of study in Europe under the Erasmus Exchange scheme. Details of the Erasmus scheme is available from [here](#). There will be additional costs associated with this, for example: health and travel insurance, accommodation and living expenses; travel costs; visa costs. This will vary depending on which country you are travelling to.

Placements: There are some programmes within the Faculty which include a Placement as a compulsory part of the programme. There are also opportunities to undertake an optional year out to undertake an industrial placement. Whether it is a compulsory part of your programme or an optional choice, you will be responsible for any additional costs incurred. Details about Student Placements can be found on the relevant discipline web-sites:

[Biological Sciences](#)
[Chemistry](#)
[Ocean and Earth Science](#)

5. Faculty Teaching and Learning Skills

5.1 Time management

It is your responsibility to manage your time in order to ensure that you keep up to date with the material presented and with the requirements of the programme. Deadlines for work submission should be adhered to, otherwise marks will be deducted via the imposition of a [late submission penalty](#). However, the framework of when lectures and classes occur and deadlines for submission of work will be made available to you well in advance, but if you are unclear about any aspect of your module you should talk this through with your module co-ordinator or programme director. This knowledge will allow you to plan your life based on how you know you work best. Effective use of your time will allow you to perform well on your course and to enjoy student life. One of the work-place skills you should aim to acquire at University is the ability to manage multiple priorities. If you have problems in this area please discuss them with your Personal Academic Tutor.

5.2 Lectures

A single lecture slot lasts 45 minutes. It is therefore vital that you arrive promptly in order to gain maximum benefit from the time. Each lecturer will present material using either handouts or require you to make your own notes. Transcribing lectured material into a form that you find most useful is an important part of the learning process. You should ensure that you understand the material and, if you have difficulty in understanding or applying the knowledge, use recommended textbooks or the assistance of teaching staff during tutorials to gain understanding. It is your responsibility to develop your ability in a given subject. How well you have acquired that ability and the associated knowledge is gauged by the examination and coursework assessment process. Lectures are provided for your benefit and you should take full advantage by ensuring you attend all of the lectures in a given course module. If, for any reason, you are unable to attend, ensure that you get hold of a copy of the notes or handouts from your module co-ordinator.

5.3 Use of electronic recording devices or mobile phones in lectures or classes

Out of courtesy to staff and other students, please ensure that mobile phones are switched off in lectures and seminars. You are advised that lectures are the copyright property of the lecturer and permission to audio-record a lecture must be personally sought from the lecturer before proceeding.

If you wish to use an electronic device to take notes in a lecture, you should do so in a way that does not cause disruption to those sitting near you.

If you have a health condition for which additional support is needed, you may, following assessment by the University's educational support services, make appropriate arrangements with staff for recording lectures.

5.4 Tutorials/supervisions

Group tutorials/supervisions are timetabled for some modules. These sessions are intended for you to develop your problem solving skills as well as for you to discuss further with an experienced member of staff any particular lecture material you are finding difficult to understand. It is essential that you come well prepared for these sessions. These sessions are one of the most effective ways of reinforcing the lecture material.

5.5 Independent or Self learning

Independent study or self-directed learning involves using libraries, data retrieval systems, internet, etc. or in a group working on coursework, reading the lecture material or reading around the subject. This should also develop your investigative and problem solving skills in furthering understanding of the subject, creating links with other modules - past and present - and providing a broadening of your educational experiences and knowledge base.

Self-learning is your personal responsibility and your commitment to the programme. It requires discipline, motivation and focussing on achieving individually set targets. It enables you to reach your full potential academically, develops your personal skills and helps establish a successful professional career.

5.6 Key skills

Key skills are those skills which can be applied to other disciplines and fields of work. Employers are increasingly seeking to employ individuals with well-developed key skills. More can be found on the Academic Skills pages of the [library website](#).

5.7 Faculty Policy on referencing

The Faculty uses the Harvard referencing style. The Library has a comprehensive guide to [referencing](#). In addition, students will also receive guidance via lectures and Blackboard regarding [Study Skills](#).

5.8 Academic integrity: the University Policy

The University expects that all students will familiarise themselves with the [Regulations Governing Academic Integrity](#).

The Students' Union Advice Centre has developed a [Guide](#) for students.

There is also additional training on Academic Integrity by way of an on-line training activity, for which there is a requirement for a 100% pass mark. This is undertaken via BIOL1020 for all Biological Sciences students, prior to the first practical laboratory sessions for all Chemistry students and SOES1003 for all Ocean and Earth Science students.

6. Assessment and Examinations

6.1 Coursework assessment and submission

A number of modules include coursework assignments as part of the assessment. Coursework can often occupy a large amount of time. It is worth noting that getting a few extra marks on an assignment may not justify the extra time spent. Conversely, students who forget or do not bother to hand in work can make it very difficult for themselves to achieve their full academic potential.

Normally, all coursework should be accompanied by a completed Coursework Submission/Feedback form and submitted to the Student Office by not later than the published date and time. If both paper-based and electronic submission is required, you should note that your submission will not be considered complete until both formats have been submitted. If other arrangements are in force for submission of a particular piece of coursework, this will be advised by your module co-ordinator.

Please do not use plastic pockets or elaborate folders. These are unnecessary and create extra work for staff. Make sure the pages are numbered and stapled together. If your submission requires copies on a disc or memory stick please label it with your name, number and module code and attach it to your work in a suitable disc pocket. Do not submit loose discs. Make sure your submission form is attached securely to your work.

6.2 Penalties for late coursework submission

When coursework is set a due date for submission will be specified and there will be associated penalties for handing in work late. The University has a [uniform policy for late submissions](#).

6.3 Coursework extensions

If you know there will be a valid reason why you cannot submit the work at the given date you must contact the Student Office as soon as possible. You should complete a Deadline Extension Request form, which should provide adequate detail of the reasons why you are seeking an extension. Your completed form should be submitted to the Student Office who will arrange for your request to be reviewed and approved. However, please note that the following are examples of circumstances likely to be rejected:

- If there is a clear case that circumstances relied on were foreseeable or preventable
- Pressures of paid work
- Holidays
- Personal computer/printer problems
- Poor practice e.g. no back-up of electronic documents
- Claims that students were unaware of the dates or times of submission or examination
- Poor time management

This list is a non-exhaustive list of examples unlikely to fall within the definition of Section B, 2.1 of the [Special Considerations Regulations](#).

The Student Office will contact you via your University email account to let you know once approval has been made. **It is your responsibility to request an extension in a timely manner** and the entire process should be completed at least **48 hours** before the published deadline for submission of the piece of coursework.

6.4 Examination preparation (also see Appendix A)

You will know yourself how best you prepare for examinations. It is always worth remembering that the sooner you start your preparation the better and that one of the aims of each module is to help you prepare for the examination. Make sure that you have a complete set of notes; that you understand their content; that you can apply the material by solving the example sheet questions; and that you have practiced questions from past papers under examination time constraints. The University's online archive of previously set examination papers is available to assist with your learning and preparation for forthcoming examinations. [Past Exam Papers](#) are available via the library.

Remember that if you get into difficulty during your revision process on a particular subject ask someone to help you. This may be either one of the lecturers or teaching assistants on the module. For helpful hints on revision strategy and examination techniques, please refer to Appendix A.

6.5 Examinations

The dates of University examination periods are published annually on the [exam timetables web page](#). However Faculties that have extended academic years, may have assessment periods outside of these times.

6.6 Scaling

Occasionally, systematic issues arise in marking; for example, there may be differences noted among markers that require adjustment to bring them in line with one another, the level of difficulty of different exam questions, or anomalous variations in performance between different groups of students taking the same module. Each module is subject to a moderation process designed to identify any such issues, and further review by the relevant External Examiner. Where potential issues are identified, the module lead will review the evidence and recommend appropriate action such as re-marking using the same or a different marking scheme, re-weighting components or sub-components, or scaling the assessment component or module marks. Any adjustments to marks will be made according to the principles and practices identified in the University's double-blind marking and moderation and scaling policy/policies, which include discussion with the External Examiner and approval by the responsible Board of Examiners to confirm that the resulting marks conform to University and national standards. As determining appropriate standards is a matter of academic judgment, these decisions are not subject to academic appeal. Where marks are adjusted, affected students will be notified of both the rationale and the process applied.

6.7 Illegible exam scripts

If your examination script is considered illegible, the [Illegible Examination Scripts Policy](#) will be instigated. You will be asked to come in to dictate your script so that it can be transcribed. The costs associated with producing the transcript will fall to you and will be charged at £10.00 per hour. If your script is not transcribed then it will receive a mark of zero (0).

6.8 Coursework and examination feedback

Feedback comes in many forms and you must learn to recognise the merits of all of these. The [Student Feedback Policy](#) provides an overview of formal feedback.

Formal feedback is well documented and the following paragraphs identify ones that you are officially entitled to.

Informal feedback is just as important and comes in the form of individual chats with your Personal Academic Tutor, module leaders or project supervisors, or group meetings with academics after a lecture or practical session. Also tests and quizzes on Blackboard, which are available for several modules, can provide valuable feedback on how you are progressing.

All coursework will be marked and returned to you via the Student Office, accompanied by feedback which will relate to the standard of your work and the reasons for the mark/grade given. You should note that all marks are considered provisional until they have been reviewed and confirmed by the Board of Examiners. This feedback will typically be returned within four weeks following your submission. Large assignments (e.g. your dissertation/project work) may take slightly longer to be returned. Bear in mind that if you hand in work late, your feedback may be delayed.

Where appropriate, for example with smaller problem solving exercises like calculations, the lecturer will decide if feedback should be given individually, or reported back to the whole group. You are, however always free to ask the lecturer personally how you are progressing.

6.9 Access to coursework/examination scripts

Students are entitled to view their examination scripts on request to the Faculty. You are only permitted to view an examination script to enable you to see how you can improve your future performance and no mark or other annotation on the script is negotiable or open to alteration. The absence of annotation on a script does not mean that it has not been marked.

Should you wish to inspect your completed examination scripts, there is a procedure that will need to be followed and you should contact the Student Office (please see contact details on page 5) or contact your tutor. You are strongly advised to meet with your tutor if you have any concerns about your performance. In addition, each Academic Unit may organise a day when students are able to view their scripts as part of student feedback. Please note the following:

- Access to the script(s) will be given within 1 (one) month from the date of the written request being received by the Faculty Academic Registrar, and at a time and place agreed between the Faculty Academic Registrar (or her nominee) and the student. This will normally be only during Office opening hours (09.00 am 5.00 pm Monday – Friday).
- No charge will be made to the student for access to an examination script.
- The student making the request will be allowed to inspect the original script, under supervision by the Faculty Academic Registrar (or their nominee), for a maximum of 20 minutes. A copy of the original script will be taken and held by the Faculty Academic Registrar before scrutiny by the student, and the student will be so informed.
- No discussion may be entered into during the process regarding anything written on the script either by the student or the examiner.

- No mark or other annotation on the script is negotiable or open to alteration.
- No copy may be made of the whole or any part of the script by the student.
- No writing or marks may be made on the original script during any scrutiny under these procedures.
- Access is given to a particular script only once.

If the student, following sight of a particular script under the above rules, wishes to raise a query, this should be done in writing, in the first instance to the examiner with a copy to the Faculty Academic Registrar. The query cannot relate to academic judgement.

6.10 Release of results

Students will be given, as a matter of course, the marks they obtain in each individual module of study after they have been ratified by the Board of Examiners. More information can be found in [the Release of Marks procedure](#).

You should note that the official transcript of your marks would normally show the latest mark obtained in each subject with a note, where appropriate, that it was obtained at repeat or referral attempt.

6.11 Final Assessment and Transcripts

At the end of your programme, your overall performance will be assessed. If you satisfy the academic standards necessary, the Board of Examiners will recommend you for award.

Transcripts can be obtained from the University Exams Office by emailing certificates@soton.ac.uk.

6.12 Prizes

Students can be nominated for prizes which are awarded during Graduation Receptions. Details of criteria can be found in the Programme section of the Handbook.

6.13 Final assessment

At the end of your programme, your overall performance will be assessed. The basis of this assessment is specified in your [programme regulations](#). If you satisfy the academic standards necessary, the examination board will recommend you for award.

7. Staff/Student Liaison: getting your voice heard

7.1 Module Survey

The Faculty aims to consult with and to provide opportunities for all students and staff to make their views known. You are encouraged to offer your comments/suggestions to members of staff and feedback is requested for each module undertaken. Module surveys are undertaken at the end of each Semester by an automated electronic system. Results to previous surveys are found via the Student Feedback sites on Blackboard.

7.2 Module Reports

Your feedback to module surveys will be reflected upon by the module leader and will be included in the Module Report. Modules reports are available via SUSSED under the "programme specific information" tab.

7.3 Staff Student Liaison Committees

Staff-Student liaison committees have representatives from across each programme. These committees have the role of monitoring the organisation and management of the student programmes, to note any difficulties that students may be encountering, and to take advice about ways of improving the programmes.

7.4 Student Representation

Through the [Students' Union](#) you will be invited to elect your Faculty representatives (Faculty Officers, Academic Presidents, Academic Vice-Presidents and Course Representatives) who co-ordinate the student voice on Faculty committees to enable your voice to be heard.

More information on the Students' Union officers and their roles is available on the [Students' Union Representation webpages](#).

8. Careers and Employability

The [Careers and Employability Service](#) provides support to students at all levels of study and has a range of opportunities on offer. Research* shows that graduates with no previous work experience are unlikely to be successful during the selection process and over 30% of positions will be filled by graduates who have already worked for that organisation. We provide drop-in advice, 1:1 guidance, workshops, skills sessions, Careers Fairs and employer led events to support your career planning as well as the following opportunities:

8.1 *Excel Southampton Internships*

The [Excel Southampton Internship Programme](#) offers 4-12 weeks paid internships which enhance your CV, expand your network and open graduate recruitment opportunities

8.2 *Business Innovation Programme*

The [Business Innovation Programme](#) provides an opportunity to develop your business acumen, team working and problem-solving skills by working on an 8 week project put forward by local businesses or not-for-profit organisations.

8.3 *Year in Employment Placements*

The [Year in Employment](#) is a work placement of up to 12 months duration taken after your second year of study enabling you to develop the skills employers value and gain insight to an industry of your choice. Eligibility criteria is available [here](#) please check before applying. Opportunities vary in duration and the type of role advertised.

8.4 *Volunteering Bank*

[Volunteering](#) is a great way to help you gain many of the skills employers are looking for, build your network and develop yourself in new ways.

8.5 *Employability events within the Faculty*

The Careers and Employability Service work closely with departments and Faculties to provide targeted careers support within and alongside your curriculum. Activities and opportunities may be appear within the timetable, or be advertised within your Faculty. Examples include lectures and workshops, online learning options, and events featuring alumni/employers. There are often opportunities to connect with organisations that offer themed events focused on employability. Some companies offer projects linked to dissertations or specific research.

For information on Employability please see:

[Biological Sciences](#)
[Chemistry](#)
[Ocean and Earth Sciences](#)

Student Information site via [Blackboard](#) for events local to your Academic Unit.

8.6 *Professional Accreditation*

Several of our programmes receive professional accreditation:

Chemistry:

[BSc and MChem programmes](#) are accredited by the [Royal Society of Chemistry](#). Recent graduates can apply to become an Associate Member of the RSC and can upgrade their membership to a Member once graduates have a least 3 years postgraduate experience.

Ocean and Earth Science:

[Geology and Geophysics programmes](#) are accredited by [The Geological Society](#). Current students can apply for Candidate Fellowship and once graduated can apply for Fellowship status.

[Marine Biology and Oceanography programmes](#) are accredited by The Institute of Marine Engineering, Science and Technology (IMarEST). Current students can apply for [Student Membership](#) (SIMarEST) and once graduated have the option of several types of membership depending on their career path or interest, these include: Affiliate, Elective Member, Associate Member, Member or Fellow.

8.7 *Curriculum Innovation*

At the University of Southampton we offer unique opportunities to help you achieve your ambitions. Depending on your programme of study, you may be eligible to take interdisciplinary modules

For most degree programmes you take eight modules in each year of your degree. Some of these will be compulsory modules that you must take, but in most cases you could also take some optional modules. You can choose to use these additional modules for a number of different options within your Faculty and elsewhere, to:

- Deepen your knowledge with more modules in your home discipline (see your Faculty website for more details of what is available).
- Broaden your studies by taking interdisciplinary modules, languages or other modules outside your home discipline.

8.8 Programmes with a Minor

If your degree is eligible, there is the opportunity to study a Minor subject alongside your main programme of study. The Minor will be in a different area to your subject. More information is available on the [minors website](#).

9. Further study opportunities

Perhaps you are considering postgraduate study. There is a wide range of programmes leading to various qualifications available to you, and selecting the appropriate programme may not be easy. The first thing to realise is that you need to make a well informed decision and therefore the key is to obtain all the information you need. The Faculty always aims to retain its best and brightest students for research. However when collecting information about postgraduate studies, you should cast your net wide. You need to select an area that interests you – a difficult task in itself because you will also seek an area that has good employment prospects. There is also the choice between taught postgraduate programmes leading towards a Master of Science (MSc) and/or research postgraduate degrees.

Further details on the programmes offered by the Faculty can be found on the Faculty's website.

[Biological Sciences](#)

[Chemistry](#)

[Ocean and Earth Science](#)

10. Regulatory Issues

We hope that you will be satisfied with your experience during your time as a student at the University of Southampton but we do recognise that, on occasion, things can go wrong. If you have a concern about any aspect of your experience at the University we encourage you to raise it as soon as the concern arises. It is always better to let us know that you feel there is a problem as soon as possible so that the matter may be resolved quickly. You may alternatively wish to consult with your student academic president if it is an issue in common with other students. Please be reassured that you will not suffer any disadvantage or recrimination as a result of raising a genuine concern, student complaint or academic appeal.

10.1 Academic appeals

Provided you have grounds, you may appeal against any academic decision made by the University. There are some exceptions and you should note you cannot appeal against a decision that has been made in the proper exercise of academic judgment. [The Regulations Governing Academic Appeals by Students](#) outlines the regulations and procedure that should be followed should you wish to steps that should be followed when making an academic appeal.

10.2 Student complaints

The [Regulations Governing Student Complaints](#) sets out the process that should be followed should you wish to raise a complaint about a matter relating to either the facilities and services provided by the University, its academic programmes, and the conduct of University staff, and which has materially affected you.

10.3 Dignity at work and study

The [University's Dignity at Work and Study Policy](#) applies to the conduct of staff and students, in the context of their University work of study, or which otherwise affects the working, learning or social environment of the University. Fair criticism of staff or student performance or conduct will not be considered to be bullying or harassment provided that those involved are treated with dignity, courtesy and respect. Any allegation of harassment, bullying or victimisation will be treated seriously, regardless of the seniority of those involved, and anyone found to have behaved unacceptably may be the subject of disciplinary action up to and including dismissal or expulsion.

10.4 Student Discipline

As members of the University community, all students are expected to conduct themselves with due regard for its good name and reputation and are required to comply with the University's Regulations at all times. Any allegation of misconduct will be considered within the [Student Discipline Regulations](#), in accordance with the evidence and circumstances presented. Information for students on discipline is available from the [Student Services website](#).

Appendix A

Revision Strategy and Examination Techniques

A.1 Revision strategy

Revision should be an on-going process which starts very early in your programme. The amount of knowledge to be accumulated and the variety of skills and techniques to be developed are large and they are best assimilated gradually and consolidated as you go along. Regular revision is really a part of the learning process but, of necessity, becomes more concentrated as the examination approaches. "Re-vision" means looking again at things you have already seen – it is not about learning for the first time.

A.1.1 Final revision programme

At the start of your final revision schedule (during the Christmas Vacation for Semester 1 exams, and during the Easter Vacation and at the end of the taught element of the programme for Semester 2 exams) you must get organised, and the best way to do this is to devise a revision timetable. Plan your time carefully, give yourself definite objectives for each session, revise actively, test yourself regularly, make notes, and practise problem solving. Use revision sessions to study topics you have worked on before, as revision is simply the process of reminding you of topics and techniques previously understood. You will appreciate how well-organised notes will help you during your revision. Write out important definitions, proofs, formulae and equations, checking them against your notes. Re-work previously solved problems without looking at your previous solution, then attempt questions that you have not looked at before. Make special revision notes for quick reference on cards to keep in your pocket and charts to hang on the wall of your study room. Practise your examination technique.

A.1.2 Examination practice

You should be familiar with the modules and syllabuses you will be examined in at the end of Semesters 1 and 2. Analyse recent examination papers. Work out how long you have for each question and become familiar with the style of questions.

During your ordinary study periods you will no doubt have attempted many questions but will have seldom given yourself strict time restrictions. In examinations the timing of your answers to questions is vitally important. Practice answering examination questions in mock examination conditions, allowing yourself only the normal available examination time and the equipment you are permitted to take into the examination room. To obtain 'mock examination' practice save one or two complete examination papers so that you can use them as final test papers 'against the clock'.

Examination nerves are common and understandable but will be lessened if you have followed a sensible course of study and revision. You may not do yourself justice if you have a poor examination technique. The hints on the next page should help you to tackle the examination with greater confidence.

A.2 Examination techniques

A.2.1 Before the day

Before the actual day of your examination, make sure you know:

- the date, day, time and venue of each paper for your course;
- how to get to the examination venue if it is not well known to you;
- your candidate number;
- the telephone number of the Student Office.

Prepare any equipment you will need for your particular examination:

- pens which are comfortable to use;
- sharp pencils, a pencil sharpener and rubber;
- drawing instruments such as a ruler, compasses, protractor, set squares;
- University approved calculator (if allowed) and spare batteries (check that you know how to replace them quickly);
- an accurate watch or small clock.

A.2.2 On the Day

Before the examination:

Check that you have all the equipment you will need before setting off for your examination with plenty of time to spare. If you are delayed, contact the Student Office (have the telephone number with you) to explain what has

happened. Arrive at the examination room early; a late start to an examination cannot be a good start and you will not be permitted to enter the examination room later than 30 minutes after its scheduled start time.

Just before the start:

Listen carefully to the invigilator. There may be some changes or special instructions which you were not expecting or some errors in the paper. Fill in any details, such as your candidate number, when the invigilator instructs you to do so.

Reading the instructions

When the invigilator says that you may begin, read the instructions on your examination paper very carefully. Make sure that it is the correct examination paper and, in particular, note:

- the number of sections and questions you have to do;
- how much time you have to do them in;
- which questions (if any) are compulsory;
- what choice of questions (if any) you have;
- how to present your answers.

Planning your time

Quickly calculate the length of time you should spend on each question. You will have practised doing this for past papers but make sure that you use the instructions on your actual examination paper, rather than making any assumptions. Try to allow about 10 minutes at the end for checking your paper.

Choosing the questions

Read through the whole examination paper carefully, checking that you have read each page. If you have a choice of questions:

- cross out the ones you can't do;
- tick those you can definitely do;
- choose the correct number to do;
- mark the order in which you are going to attempt them, attempting your best question(s) first.

Answering the question

Before you attempt to answer a question, read it all again carefully, jotting down points such as formulae and information relating to that question. These hints should help you when writing an answer.

- Plan before you write – the stress of working under time constraints in the exam room can make all your good study intentions disappear. However, this is when it is more important than ever. Take a few minutes to think and plan.
- Think about what the question is actually *asking*. What are you expected to include in your answer. What material will be *relevant*?
- Underline the key words in the question; identify the main topic and discussion areas; choose a few points/arguments about which you can write; make a mini plan which puts them in order before you start writing. You can cross it through afterwards.
- Make sure that your writing is legible.
- Present your answer in a neat, logical and concise way.
- Show all your working; marks are often given for methodology as well as your answers.
- You should be able to refer by name to the main theorists/researchers in your topic, giving the year of their major works. You do not need to give page numbers of lengthy quotes, except in an open book exam. You do not need a reference list.
- Do not do things you are not asked for.
- If relevant, state any principles, results or formulae used and indicate your reasons for using them.
- Check any formulae you use with the formula sheet, if provided.
- Always do a rough estimate of any calculation to check that your answer is sensible.
- When using a calculator, make sure that each calculation is shown clearly in your answer and give your final answer to the required degree of accuracy.
- If you get 'stuck', re-read the question carefully to check that you have not missed any important information or hints given in the question itself.
- When you have completed your answer, re-read the question to check that you have answered all parts.

Examination discipline

It is important that you try to keep to the times you have allocated to answering a question or section and that you answer the correct number of questions. If you answer less than the number of questions required you are limiting the number of marks available to you.

At the end

Before handing in your examination script check that:

- any 'front sheet' is completed according to the instructions;
- every loose page is clearly marked with your candidate number, etc.;
- every answer is numbered correctly;

- pages are numbered clearly and in order.