Course Information Document: Undergraduate

For students starting in Academic Year 2017/2018

1. Course Summary

Names of programme(s) and award title(s)	Master in Chemistry (MChem)
Award type	Integrated Masters
Mode of study	Full time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 7
Duration	4 years
Location of study	Keele University – main campus
Accreditation (if applicable)	Professional accreditation will be sought from the Royal Society of Chemistry in the 2017-18 academic year – for further details see section 12
Regulator	Higher Education Funding Council for England (HEFCE)
Tuition Fees	**UK/EU students:** Fee for 2017/18 is £9,250* **International students:** Fee for 2017/18 is £15,250**
Additional Costs	Refer to section 16

How this information might change: *Please read the important information at http://www.keele.ac.uk/student-agreement/ This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.*

2. What is an Integrated Masters programme?

Integrated master's awards - which are common in science, mathematics and engineering - are delivered through a programme that combines study at the level of a bachelor's degree with honours with study at master's level. As such, a student graduates with a master's degree after a single four-year programme of study. The Integrated Masters programme described in this document builds upon the three year Single Honours programme by adding a fourth year in which students study modules in Chemistry at an advanced level.

** These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

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There are several BSc and one MChem degree routes available in Chemistry at Keele University. These specifications refer solely to the MChem route which requires a minimum of 360 credits in Chemistry. Students seeking further information on BSc Honours routes involving Chemistry are advised to consult the relevant programme specifications.

Students studying a 2nd subject in 1st and 2nd year are referred to as being on the Dual Honours (DH) Route. Students studying only Chemistry are referred to as being on the Single Honours (SH) Route.

Note: For clarity, this document refers to each level of study by its FHEQ level. Year 1 corresponds to Level 4, Year 2 to Level 5, Year 3 to Level 6 and Year 4 to Level 7.

Level	Dual Honours Route	Single Honours Route
4	60 credits Chemistry	90 credits Chemistry
	60 credits Subject X	30 credits Electives
5	60 credits Chemistry	105 – 120 credits Chemistry
	60 credits Subject X	0 – 15 credits Electives
6	120 credits Chemistry	120 credits Chemistry
7	120 credits Chemistry	120 credits Chemistry
Total	360 credits Chemistry 120 credits Subject X	435 – 450 credits Chemistry 30 – 45 credits Electives
Degree	MChem Chemistry	MChem Chemistry

At Level 4, students may select to study Chemistry AND Subject X, or pursue the Single Honours Chemistry Route.

At Level 5, students may continue with Chemistry AND Subject X, study Medicinal Chemistry AND Subject X or pursue the Single Honours Chemistry Route. We recommend that students interested in the MChem transfer to the Single Honours Chemistry Route, however we respect the right of students to choose. Students on the Dual Honours Chemistry or Medicinal Chemistry route may be required to take alternative modules at Level 6.

You must elect to transfer from Dual Honours Chemistry or Medicinal Chemistry Courses to MChem Chemistry by April of Level 5. You may transfer from a Dual Honours course at the start of Semester 2, Level 4, the start of Level 5, or the end of Level 5. You may not transfer from a Dual Honours course at the start of Semester 2 Level 5. This is because there would not be an appropriate BSc degree for you to transfer back to in the event of not being admitted to the MChem programme or not being eligible for an award at Level 7.

Progression to the MChem programme requires an average of at least 50% at Level 5. If you do not attain this average, you will be transferred automatically to the appropriate BSc Honours degree for Level 6.

3. Overview of the Programme

Chemistry is the central science, disciplined in experimental approach, highly creative in thinking, and life-enhancing in impact. The contribution of chemistry to our modern world ranges from advanced materials in gadgets, and high-tech materials used on the International Space Station, to life-saving drugs that are essential to modern medicine. The wide diversity of chemistry is reflected in teaching and research at Keele University.

Our MChem programme allows you to focus on Chemistry from the beginning of your studies. If you wish to combine Chemistry with another subject, BSc Dual Honours or Major Route programmes are available.

In first and second year, lectures cover core material for study, introducing you to concepts that are developed in workshops and laboratory classes. Assessment is through a combination of exams and coursework including reports, presentations, and laboratory diaries. You will receive comprehensive feedback on assessed work in a variety of formats including written, audio, and face-to-face methods.

In third and fourth year, lectures and seminars cover research-focused material. Assessment includes exams and coursework designed to further develop information retrieval and critical thinking skills Third year project work is in the format of a research project module which is assessed through the evaluation of the laboratory diary, an oral examination and writing of a scientific paper. In the fourth year you will undertake an extended 60 credit research project over both semesters to be assessed by dissertation, poster presentation and oral examination. You have access throughout your degree to excellent laboratory facilities that are exceptionally well equipped with computational facilities and chemical instrumentation, much of which is research grade. The structure of the programme is designed to enable you to enhance your employability through the development of problem-solving, presentational and communication skills as well as developing your research skills and your capacity to learn independently. If you take advantage of the full range of opportunities the programme offers, you will have acquired the knowledge and skills to present yourself with confidence in pursuit of your chosen career in a competitive world. The MChem programme goes further than our BSc programmes in offering you the opportunity to develop your subject specific knowledge, and research, problem solving and communication skills. Through choice of the research project and selection of topics within modules, you will have the opportunity to tailor your final year to suit your interests and aspirations.

4. Aims of the Programme

The broad aims of the programme are to:

- equip you with depth and breadth of chemistry knowledge,
- develop a wide range of laboratory and analytical skills,
- develop enhanced problem solving, research and communication skills.

5. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Intellectual skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to demonstrate knowledge and understanding of:

- knowledge of the major aspects of chemical terminology and vocabulary
- knowledge and understanding of fundamental physicochemical principles
- knowledge of a range of inorganic and organic materials
- understanding of general synthetic pathways, including related isolation, purification and characterisation techniques
- awareness of issues within chemistry that overlap with other related disciplines
- knowledge of selected aspects of chemistry at the forefront of the discipline

- knowledge of aspects of chemical science research methods and peer-reviewed chemical science literature
- the ability to adapt and apply methodology to the solution of unfamiliar problems
- the ability to design and plan experiments through selection of appropriate techniques and procedures, and to evaluate critically the outcomes of those experiments

Subject specific skills

Successful students will be able to:

- demonstrate skills in the safe-handling of chemical materials, taking into account their physical and chemical properties including any specific hazards associated with their use
- conduct risk assessments
- conduct documented laboratory procedures in synthetic and analytical work, in relation to both inorganic and organic systems
- monitor, by observation and measurement, chemical properties, events or changes, with systematic and reliable recording and documentation thereof
- operate standard chemical instrumentation
- interpret and explain the limits of accuracy of their own experimental data in terms of significance and underlying theory
- demonstrate the ability to work independently, identify areas for further training and be self-critical in the evaluation of risks, experimental procedures and outcomes
- demonstrate the ability to assimilate, evaluate and present research results objectively
- demonstrate the skills required to undertake a research project reporting outcomes that are potentially publishable (in a peer-reviewed publication)

Intellectual skills

Successful students will be able to:

- demonstrate knowledge and understanding of essential chemistry-related facts, concepts, principles and theories
- apply such knowledge and understanding to the solution of qualitative and quantitative problems, both familiar and unfamiliar
- recognise and analyse problems and plan strategies for their solution
- evaluate, interpret and synthesise chemical information and data
- carry out practical application of theory using computer software and models
- communicate scientific material and arguments
- use information technology (IT) to manipulate and present chemical information and data
- demonstrate self-direction, initiative and originality when solving problems
- demonstrate the ability to make decisions in complex situations

Key or transferable skills (including employability skills)

Successful students will be able to:

- communicate information, ideas, problems, and solutions to both specialist and non-specialist audiences

orally and in writing

- demonstrate problem-solving skills, relating to qualitative and quantitative information
- demonstrate numeracy and mathematical skills, including such aspects as error analysis, order-of-magnitude estimations, correct use of units and modes of data presentation
- retrieve and cite information, in relation to primary and secondary information sources, including retrieval of information through online computer searches
- demonstrate skills in the use of information technology for presenting information and data
- interact with other people and engage in team-working, time management and organisational skills, as evidenced by the ability to plan and implement efficient and effective modes of working
- show development of skills and awareness necessary to seek out opportunities to undertake appropriate further training of a professional nature
- demonstrate the ability to communicate and interact with professionals and work in multi-skilled teams
- show development of independent learning skills required for continued professional development

6. How is the Programme taught?

Learning and teaching methods used on the programme vary according to the subject matter and level of the module. They include the following:

- Lectures, lecture breaks and self-tests
- Interactive personal response systems
- Screencasts
- Recorded lectures
- Tablet PCs
- Demonstrations
- Detailed personalised and generic written and face-to-face feedback
- Electronic submission and return of marked coursework (with feedback)
- Audio feedback
- Screencast feedback
- Pre-laboratory and post-laboratory exercises
- Laboratory classes
- Research projects
- Problem classes and workshops
- Problem-based and context-based activities
- IT instruction (spread sheets, word-processing, chemical structure drawing, databases, textbook resources, information retrieval and literature searching)
- Group work
- Self and peer-assessment for learning
- Information literacy activities
- Computer-aided learning (simulations and animations, online activities and exercises)
- Case studies
- Chemical Sciences Seminar Series
- Use of e-learning/the Keele Learning Environment (KLE)

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or module lecturers on a one-to-one basis.

7. Teaching Staff

A dynamic group of staff with a broad range of expertise teach on the programme and bring a wealth of experience acquired through fundamental and applied research across a diverse range of areas. Some current staff members are internationally recognised leaders in their field and manage substantial research groups

comprising postgraduate research students and postdoctoral researchers, some of whom contribute to the teaching on the programme. Reflecting the diverse range of research expertise, some staff members also contribute to the Forensic Science, and Applied Environmental Science programmes at Keele. Many current teaching staff hold, or are working towards an accredited Higher Education Teaching qualification and many are Fellows of the Higher Education Academy (FHEA), the professional body for teachers in Higher Education. A number of the teaching staff have established a national reputation for excellence in teaching and learning and have been recognised for their innovation in teaching through university and national teaching excellence awards, and the attraction of funding for teaching innovation projects.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

8. What is the Structure of the Programme?

The academic year runs from September to June and is divided into two semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April.

Our degree courses are organised into modules. Each module is usually a self-contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

There are three types of module delivered as part of this programme. They are:

- Compulsory core module – a module that you are required to study on this course;
- Optional core module – these allow you some limited choice of what to study from a list of modules;
- Programme approved elective module – subject-related modules that count towards the number of subject credits required by your degree;

Year 1 (Level 4)

There are four compulsory core 15-credit modules taken by all chemistry students at Level 4. Students on the Single Honours (SH) pathway will select two electives and take two additional compulsory core modules, with approximately 4 hours per week timetabled contact time.

Whilst laying the foundations of the principles and vocabulary of Chemistry, you will be challenged to question knowledge and the nature of knowledge when you start to encounter problems that have more than one answer or interpretation. You will be exposed to experimental evidence from a variety of sources and start to learn how such evidence supports, undermines or otherwise, the theoretical models and ideas upon which the subject of Chemistry is built. The practical classes emphasise development of core practical skills through hands-on experience of key techniques and procedures, as well as skills in laboratory safety, maintaining a laboratory diary, observation, information retrieval, IT skills, scientific writing and reporting in a variety of formats.

Dual Honours Chemistry route
60 credits of Chemistry, 60 credits of Subject X

Compulsory Core modules	Credits	Elective modules	Credits
Chemical Concepts & Structure	15	None	
Practical & Professional Chemistry Skills I	15		
Practical & Professional Chemistry Skills II	15		

Chemical Properties & Reactions	15		

Single Honours Chemistry route
90 credits of Chemistry, 30 credits of Electives

Compulsory Core modules	Credits	Elective modules	Credits
Chemical Concepts & Structure	15	None	
Practical & Professional Chemistry Skills I	15		
Practical & Professional Chemistry Skills II	15		
Chemical Properties & Reactions	15		
Sustainable Chemistry	15		
Mathematical Tools & Concepts in Chemistry	15		

Year 2 (Level 5)

Students on the SH route will take 7 or 8 chemistry modules with the option to select an elective. 6 modules will be compulsory core and the remaining chemistry module will be selected from a choice of 2 optional core modules and one programme approved elective. Students on the DH (Chem or Med Chem) route will take four compulsory core modules. Entry to MChem Year 3/Level 6 requires 50% average across all modules, irrespective of the subject studied.

In Year 2 the knowledge and skills acquired in Year 1 are developed with an increasing emphasis on the need to integrate knowledge and critically evaluate experimental evidence in solving theoretical and practical problems. In practical classes new practical skills are developed and an increasing emphasis is placed on critical evaluation of experimental design and the analysis of complex data from multiple sources, including computational theoretical calculations and the scientific peer-reviewed literature. Sophisticated analytical techniques are introduced and applied to the investigation of a variety of problems, whilst communication skills are developed to include skills in oral presentation. Skills in searching, using and referencing the peer-reviewed scientific literature are developed through timetabled training sessions in the use of online chemical and literature databases.

Dual Honours Chemistry route
60 credits of Chemistry, 60 credits of Subject X

Compulsory Core modules	Credits	Elective modules	Credits
Organic Synthesis & Chirality	15	None	
Physical & Inorganic Chemistry	15		
Spectroscopy & Analytical Chemistry	15		
Structural Inorganic Chemistry	15		

Dual Honours Medicinal Chemistry route
90 credits of Medicinal Chemistry, 30 credits of Electives

Compulsory Core modules	Credits	Elective modules	Credits
Organic Synthesis & Chirality	15	None	
Medicinal & Biological Chemistry 1	15		
Spectroscopy & Analytical Chemistry	15		
Structural Inorganic Chemistry	15		

Single Honours Chemistry route

Compulsory Core modules	Credits	Optional Core modules	Credits
Organic Synthesis & Chirality	15	Industrial Chemistry[2]	15
Spectroscopy & Analytical Chemistry	15	Medicinal & Biological Chemistry 1[2]	15
Spectroscopy & Advanced Analysis[1]	15		
Physical & Inorganic Chemistry	15	**Programme Approved Elective modules**	
Structural Inorganic Chemistry	15	Sustainable Chemistry[3]	15
Radicals, Phases & Supramolecular Chemistry	15		

[1] – Run and administered by Forensic Science

[2] – Students must select at least one optional core module, and may take an elective module.

[3] – Sustainable Chemistry (CHE-20032) is available as a programme approved elective to those students who did not take it in Year 1 (CHE-10051)

Year 3 (Level 6)

Entry to level 6 of the MChem programme requires an average of 50% in all modules at level 5. In semester 1 you will take three compulsory core modules and one optional core module. In semester 2 you will study one compulsory core module and select two optional core modules from various groups. You will undertake a 15-credit research project that lasts the full year.

In Year 3, increasingly sophisticated theories and ideas are introduced which require you to draw upon, integrate and extend the fundamental chemical principles introduced during Years 1 and 2. The breadth of material covered is diverse and encompasses research-informed topics at the forefront of the discipline in areas such as analytical chemistry, medicinal and biological chemistry, green chemistry and many others.

Compulsory Core modules	Credits	Optional Core modules	Credits
Advanced Organic Chemistry	15	Group 1:	
Chemical Kinetics, Photochemistry & Inorganic reaction Mechanisms	15	Medicinal and Biological Chemistry 2 Inorganic, Physical & Solid State Chemistry Material Chemistry & Catalysis	15 15 15
Chemistry/Medicinal Chemistry Research Project	15	Group 2: Topics in Chemistry	15
Synoptic Topics in Chemistry	15	Topics in Medicinal Chemistry	15
Advanced Chemical Analysis	15	Group 1 & 2: Radicals, Phases & Supramolecular Chemistry	15

Students have a degree of choice in 3rd year modules and must pick 3 modules from the selections available in Optional Core Groups 1 and 2, and from the Programme Approved Electives.

Optional Core Group 1	Notes
Radicals, Phases & Supramolecular Chemistry	Must be selected in Group 1 or Group 2 by any students transferring onto the MChem from Dual Honours Routes
Inorganic, Physical & Solid State Chemistry	
Biological Chemistry	Pre-requisite of Medicinal & Biological Chemistry 1 Cannot be taken with Materials Chemistry & Catalysis *
Materials Chemistry & Catalysis	Cannot be taken with Biological Chemistry*

Optional Core Group 2	Notes
Radicals, Phases & Supramolecular Chemistry	Must be selected in Group 1 or Group 2 by any students transferring onto the MChem from Dual Honours Routes
Topics in Chemistry	Cannot be taken with Topics in Medicinal Chemistry*

Topics in Medicinal Chemistry	Cannot be taken with Topics in Chemistry

Programme Approved Electives	**Notes**
Inorganic, Physical & Solid State Chemistry	
Medicinal and Biological Chemistry 2	Pre-requisite of Medicinal & Biological Chemistry 1 Cannot be taken with Materials Chemistry & Catalysis *
Materials Chemistry & Catalysis	Cannot be taken with Biological Chemistry*
Topics in Chemistry	Cannot be taken with Topics in Medicinal Chemistry*
Topics in Medicinal Chemistry	Cannot be taken with Topics in Chemistry

*Students may pick Medicinal and Biological Chemistry 2 OR Materials Chemistry & Catalysis, and either Topics in Chemistry or Topics in Medicinal Chemistry. This is due to timetabling constraints that mean these pairs of modules will be taught in the same timetable slots.

Year 4 (Level 7)

Following satisfactory progression from Year 3/Level 6, you will take two taught modules in semester 1. You will carry out an extended 60-credit Research Project (selected from a wide variety of research projects on offer), which places increased emphasis on your ability to work independently and to design and critically evaluate practical investigations and the peer-reviewed scientific literature. This will be carried out through semester 1 and 2, but more intensively in semester 2. You will carry out an extensive literature review in the broad area of your project in semester 1. Semester 2 will allow you to focus more on your project as you will have one taught module. The three taught modules are designed to develop depth and breadth of understanding across a wide range of topics.

Compulsory Core modules	**Credits**	**Elective modules**	**Credits**
MChem Research Project	60	None	
MChem Research Training	15		
Applied Chemistry Topics	30		
Research Chemistry Topics	15		

For further information on the content of modules currently offered please visit:
www.keele.ac.uk/recordsandexams/az

9. Final and intermediate awards

Credits required for each level of academic award are as follows:

Masters Degree	480 credits	You will require at least 120 credits at levels 4, 5, 6 and 7. You must accumulate at least 360 credits in Chemistry (out of 480 credits overall) to graduate with a named single honours degree in Chemistry.
Honours Degree	360 credits	You will require at least 120 credits at levels 4, 5 and 6
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher

10. How is the Programme assessed?

The wide variety of assessment methods used within Chemistry at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance. The following list is representative of the variety of assessment methods used within Chemistry:

- **Unseen written examinations** test students' knowledge and understanding of the subject. Examinations may consist of long or short answer questions

- **Pre-laboratory exercises** - structured exercises designed to increase students understanding of the theory and techniques required by a specific laboratory practical and may require the student to read the lab script, watch short videos of techniques, perform calculations, answer short questions and look up information

- **Laboratory reports** are structured proformas and full lab reports are formal summaries of work carried out in the laboratory and test students' understanding of the practical aspects of the programme and develop the skills necessary to enable students to present and analyse their results.

- **Laboratory diaries** are a hand-written record of work carried out in laboratory sessions, maintained regularly and kept in accordance with laboratory diary checklists and guidelines provided in the laboratory script. Typically, a selection of experiments carried out in each module will be assessed at the end of the semester

- **Practical examinations** are a series of laboratory or computer based exercises designed to directly assess a student ability to perform a specific procedure or type of data analysis

- **Oral examinations** – students answer questions posed by members of staff on a specific topic such as a laboratory experiment, item of coursework, or a research project

- **IT assignments and computer-based exercises (e.g. spreadsheets exercises)** – various activities designed to assess students' ability to use software to retrieve, analyse and present scientific data in a variety of formats

- **Class tests** taken either conventionally or online via the Keele Learning Environment (KLE) assess students' subject knowledge and their ability to apply it in a more structured and focused way

- **Information retrieval exercises** require students to locate and analyse information of different types from the internet, various databases, scientific publications and textbooks. The information is then presented in a prescribed written format

- **Research projects and reports** test student's knowledge of different research methodologies and the limits and provisional nature of knowledge. They also enable students to demonstrate their ability to formulate research questions and to answer them using appropriate methods

- **Research proposals** require students to develop an independent research project and think through theoretical problems surrounding methodology and practical concerns relating to, for example, availability of sample, financial restrictions, and time limits. This form of assessment is key to the development of independent research skills and a portfolio of employability skills

- **Oral and poster presentations and reports** assess individual students' subject knowledge and understanding. They also test their ability to work effectively as members of a team, to communicate what they know orally and visually, and to reflect on these processes as part of their own personal development

- **Video/screencast presentations** require students to produce a short video or screencast on a given topic and assess students' knowledge and understanding, and ability to communicate what they know orally and visually, and to reflect on these processes as part of their own personal development

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year/stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity	Year 1 (Level 4)	Year 2 (Level 5)	Year 3 (Level 6)	Year 4 (Level 7)
Scheduled learning and teaching activities	34%	39%	20%	29%
Guided independent Study	66%	61%	80%	71%
Placements	0%	0%	0%	0%

12. Accreditation

Professional accreditation will be sought from the Royal Society of Chemistry in the 2017-18 academic year. If accredited this will apply retrospectively to include all cohorts.

Study abroad: Because studying abroad has potential implications for Royal Society of Chemistry accreditation of the MChem degree, students wishing to Study Abroad must discuss this in advance with the School of Chemical and Physical Sciences, Chemistry and Forensic Science 'Study Abroad tutor' to identify and agree whether any guided study will be required to ensure their eligibility for Royal Society of Chemistry Accreditation.

13. Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: http://www.keele.ac.uk/student-agreement/

Chemistry Regulations

1. Details of the Award

(a) BSc Dual and Single Honours students will be eligible to transfer to the MChem at the end of Level 5 if they achieve an average of 50% in all modules.

(b) Any student who fails to satisfy the requirements for progression to Level 7 shall revert to BSc Honours Degree candidature and be considered for the award of an Honours Degree under the provisions of regulation 1A. The degree will reflect the subject(s) studied by the student at Level 5. Where a student has studied Chemistry or Medicinal Chemistry with Subject X, an award of BSc Chemistry WITH Subject X or BSc

Medicinal Chemistry WITH Subject X will be used. Where a student has followed the BSc Chemistry Single Honours programme in 2nd year, an award of BSc Chemistry will be used.

(c) Any student who fails to satisfy the requirements for the award of a Masters degree shall revert to BSc Honours Degree candidature and be considered for an award as detailed in part (b) above, and be eligible for Royal Society of Chemistry accreditation.

(d) In accordance with Regulation 1F 11.3, condonement is available whereby credit will be awarded to a student for one or more modules with a mark between 30 and 39 at Levels 4*, 5* or 6* and between 40 and 49 at Level 7*. Such condonement shall not exceed 15 such credits at Level 4, 15 such credits at Level 5, and no more than 30 credits at Level 6 and 7 (with a maximum of 15 credits at Level 6). [*excluding those classed as 'Qualified Fails'.]

2. Laboratory Classes

(a) Laboratory classes are compulsory and are an essential part in fulfilling the intended learning outcomes of modules of which they are part, and a requirement of Royal Society of Chemistry accreditation. Failure to attend a significant number of the laboratory classes without good cause will result in failure of the module with no reassessment being offered.

(b) Further to the provisions of regulations 1A and 1F, any student failing to attend one laboratory class and unable to provide good cause for their absence in advance, or within 5 working days of their absence, will be issued with an informal academic warning. Thereafter warnings will be issued in line with School of Chemical and Physical Sciences policy. This is to ensure students understand the need to attend laboratory classes in order to fulfil the learning outcomes and to meet the requirements of accreditation.

(c) Any student failing to follow the health and safety guidelines in the undergraduate laboratory will be asked to leave. This may include inappropriate dress, refusal to follow reasonable requests of staff, or attending under the influence of alcohol or other substances. The student will not be permitted to make up the missed session.

(d) Further to the provision of Regulation 8, any student missing one laboratory class may self-certify their absence. In the event of missing multiple laboratory classes, an EC will be required and independent evidence may be requested for substantial absence. There is no opportunity to make up missed laboratory sessions due to timetable constraints and so the following concessions will be made available to the student:

i. the student may be given opportunity to submit assessed work based on an alternative laboratory session, in agreement with the module leader and year tutor;

ii. with the approval of the Discipline Board of Examiners, a small element of the laboratory assessment (up to 33%) may be disregarded with the final mark for the assessment being recalculated from the remaining elements.

14. What are the typical admission requirements for the programme?

Subject	A-level	Subjects not included	International Baccalaureate	BTEC	Access to Higher Education Diploma	GCSE requirements
Chemistry (MChem)	ABC / BBB A level Chemistry at grade B or above. A Pass in Science Practical will be required if applicant is taking A level Chemistry (England) ** ** Science practical	General Studies and Critical Thinking	32 points to include Higher Level Chemistry at 6 or above.	DDD You must have taken sufficient Chemistry units, please contact us for advice	Obtain Access to Higher Education Diploma with 30 Level 3 credits at Distinction and 15 Level 3 credits at Merit. You must also have taken sufficient Science credits, please contact us for advice.	Maths @ C (or 4) English Lang @ C (or 4)

	only required from applicants taking reformed A level Biology, Chemistry or Physics in England.					

Applicants who are not currently undertaking any formal study or who have been out of formal education for more than 3 years and are not qualified to A-level or BTEC standard may be offered entry to the University's Foundation Year Programme.

Applicants for whom English is not a first language must provide evidence of a recognised qualification in English language. The minimum score for entry to the Programme is Academic IELTS 6.0 or equivalent.

Please note: All non-native English speaking students are required to undertake a diagnostic English language assessment on arrival at Keele, to determine whether English language support may help them succeed with their studies. An English language module may be compulsory for some students during their first year at Keele.

Accreditation of Prior Learning (APL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here:
http://www.keele.ac.uk/qa/accreditationofpriorlearning/

15. Other learning opportunities

Study abroad (semester)

Because studying abroad has potential implications for Royal Society of Chemistry accreditation of the MChem degree students wishing to Study Abroad must discuss this in advance with the School of Chemical and Physical Sciences Chemistry and Forensic Science 'Study Abroad tutor' to identify and agree whether any guided study will be required to ensure their eligibility for Royal Society of Chemistry Accreditation.

Students on the Chemistry MChem programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (http://www.keele.ac.uk/studyabroad/partneruniversities/); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad to be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

Other opportunities

If you are interested in spending a year in industry on a placement, then our Careers Tutor will advise and support you in applying for suitable placements.

16. Additional costs

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation.

We do not anticipate any further additional costs for this undergraduate programme.

17. Document Version History

Version history	Date	Notes
Date first created	October 2016	
Revision history	V2.0: 03/2017	Replacement of 30-credit project module with two 15-credit modules to simplify project administration and ensure good student experience of individual project work [Major change: reissued]
Date approved	27/3/17	