UNIVERSITY OF KENT

Programme Specification

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she passes the programme. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the programme handbook. The accuracy of the information contained in this specification is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

BSc (Hons) Chemistry
BSc (Hons) Chemistry with Foundation Year
BSc (Hons) Chemistry with a Year in Industry
BSc (Hons) Chemistry with a Year Abroad
MChem Chemistry

1. **Awarding Institution/Body**	University of Kent
2. **Teaching Institution**	University of Kent
3. **School responsible for management of the programme**	School of Physical Sciences
4. **Teaching Site**	Canterbury
5. **Mode of Delivery**	Full-time
6. **Programme accredited by**	Royal Society of Chemistry
7. **a) Final Award**	MChem BSc (Hons)
7. **b) Alternative Exit Awards**	BSc (non hons) Chemistry Diploma in Chemistry Certificate in Chemistry
8. **Programme**	Chemistry
9. **UCAS Code (or other code)**	F105 BSc (Hons) in Chemistry with Foundation Year F107 BSc (Hons) Chemistry F108 BSc (Hons) Chemistry with a Year in Industry F109 MChem Chemistry **TBC** BSc (Hons) Chemistry with a Year Abroad
10. **Credits/ECTS Value**	120 Credits (60 ECTS) for Foundation Year programmes 360 credits (180 ECTS) for three year programmes 480 credits (240 ECTS) for four year programmes
11. **Study Level**	Undergraduate
12. **Relevant QAA subject benchmarking group(s)**	Chemistry (2014)

13. **Date of creation/revision**	Oct 2012/revised FSO Dec 2017/Revised March 2018/ Revised May 2019
14. **Intended Start Date of Delivery of this Programme**	September 2020 for Year Abroad programme and September 2019 for the others

15. **Educational Aims of the Programme**

The programme aims to:

1. To instil in students a sense of enthusiasm for chemistry, an appreciation of its application in different contexts and to involve them in an intellectually stimulating and satisfying experience of learning and studying. **(SB 3.1)**
2. To provide students with a broad and balanced foundation of chemical knowledge and practical skills. **(SB 3.2) (RSC KR1, 2, 4)**
3. MChem: To extend this knowledge and practical ability to an advanced level in selected specialist area and subjects and to develop a critical awareness of advances in chemical science. **(SB 3.3) (RSC KR 5)**
4. Foundation Year: To develop knowledge of the key skills, concepts, theories and practice that underpin chemical sciences in order to prepare for stage one of the undergraduate programme. **(RSC KR 1)**
5. Provide access to this environment to as wide a range of students as practicable. Develop in students the ability to apply their knowledge and skills to the solution of chemical science problems. **(SB 3.2) (RSC KR 2)**
6. To develop in students the ability to apply their chemical knowledge and skills to the solution of theoretical and practical problems in chemistry. **(SB 3.2) (RSC KR 6)**
7. To develop in students a wide range of practical skills including a knowledge, understanding and ability to assess safety in the laboratory environment. **(SB 3.2, 5) (RSC KR 6)**
8. To develop in students, through an education in chemistry, a range of appropriate generic skills, of value in chemical and non-chemical employment. **(SB 3.1) (RSC KR 10)**
9. Provide a stimulating, research-active environment for teaching and learning, in which students are supported and motivated to achieve their academic and personal potential. **(RSC KR 15)**
10. Enable students to graduate with an understanding of scientific methodology, the ability to use this in the solution of problems in and outside of a laboratory environment, and the ability to undertake and report on an experimental investigation using such methodology.
11. In the case of the M.Chem to further use and adapt this methodology to the solution of unfamiliar problems and in the pursuit of advanced experimental investigations. **(SB 3.2, 3.3) (RSC KR 7, 8)**
12. To establish in students an appreciation of the importance and sustainability of the chemical sciences in an industrial, academic, economic, environmental and social context. **(SB 3.1)**
13. To provide students with the knowledge and skills to proceed to graduate employment or to further studies. In the case of the M.Chem to further prepare students for a professional role in chemical sciences (employment or doctoral studies). **(SB 3.2, 4.3) (RSC KR 11)**
14. Year in Industry – to further develop student's work-related skills and provide experience of workplace culture via a year in industry. **(RSC KR 9)**
15. Year Abroad - To provide the opportunity for suitably motivated students to broaden their horizons, gain new knowledge and experience of a different culture at an overseas higher education institution with collaborative links to the University of Kent. (**RSC KR 9)**

16 Programme Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas.

The programme outcomes have references to the subject benchmarking statement for Chemistry (2014).

A. Knowledge and Understanding of:

1. Core and foundation scientific chemical, physical and biological concepts, terminology, theory, units, conventions, and laboratory practice and methods in relation to the chemical sciences. **(SB 4.2) (RSC KR 1, 2)**
2. M.Chem: Advanced theory, concepts, and practice in the chemical sciences. **(SB 4.3) (RSC KR 5)**
3. Areas of chemistry including properties of chemical elements, states of matter, organic functional groups, physiochemical principles, organic and inorganic materials, synthetic pathways, analytical chemistry, drug chemistry, biochemistry, fires and explosions (option). **(SB 4.2) (RSC KR 1, 2)**
4. Appreciate developments at the forefront of some areas of chemical sciences. MChem: Master's students will develop an in-depth knowledge and critical awareness of a substantial area of chemistry including contemporary materials chemistry. **(SB 4.3) (RSC KR 2, 4, 5)**

Skills and Other Attributes

B. Intellectual Skills:

1. Ability to demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to the subject and to apply such knowledge and understanding to the solution of qualitative and quantitative problems. **(SB 5.3) (RSC KR 2, 5)**
2. Ability to recognise and analyse problems and plan strategies for their solution by the evaluation, interpretation and synthesis of scientific information and data. M.Chem. Adapt and apply methodology above to solve advanced and unfamiliar problems. **(SB 4.4, 5.4, 5.3) (RSC KR 2, 5, 8)**
3. The ability to use computational methods for the practical application of theory and to use information technology and data-processing skills to search for, assess and interpret chemical information and data. **(SB 5.3)**
4. Skills in essay writing and presenting scientific material and arguments clearly and correctly, in writing and orally, to a range of audiences. The ability to communicate complex scientific argument to a lay audience. **(SB 5.3, 5.7) (RSC KR 10)**

C. Subject-specific Skills:

1. Skills in the safe handling of chemical materials, taking into account their physical and chemical properties, including any specific hazards associated with their use and to risk assess such hazards. **(SB 5.5) (RSC KR 6)**
2. Skills required for carrying out documented standard laboratory procedures involved in synthetic and analytical work in relation to organic and inorganic systems. Skills in observational and instrumental monitoring of physiochemical events and changes. The systematic and reliable documentation of the above. Operation of standard analytical instruments employed in the chemical sciences. M.Chem. The ability to select appropriate techniques and procedures for the above. **(SB 5.5, 5.6) (RSC KR 6)**
3. The ability to collate, interpret and explain the significance and underlying theory of experimental data, including an assessment of limits of accuracy. MChem. The ability to use an understanding of the limits of accuracy of experimental data to inform future work. **(SB 5.5, 5.6) (RSC KR 5, 6, 7)**
4. Ability to implement research projects including competence in the design and execution of experiments. **(SB 4.4, 5.5, 5.6) (RSC KR 7, 8)**

4B. MChem. Research project planning and implementation including competence in the planning, design and execution of experiments and demonstration of the ability to work independently and be self-critical in the evaluation of risks, procedures and results. (Note: C4B is an 'enhanced' version of C4 for the master's students, so the master's students do not need the basic C4 as well.) **(SB 4.4, 5.5, 5.6) (RSC KR 7, 8)**

D. Transferable Skills:

1. Communication skills, covering both written and oral communication. **(SB 5.7) (RSC KR 10)**
2. Generic skills needed for students to undertake further training of a professional nature. **(SB 5.7) (RSC KR 10)**
3. Problem-solving skills, relating to qualitative and quantitative information, extending to situations where evaluations have to be made on the basis of limited information. M.Chem. Including the demonstration of self-direction and originality. **(SB 4.4, 5.7) (RSC KR 2)**
4. Numeracy and computational skills, including such aspects as error analysis, order-of-magnitude estimations, correct use of units and modes of data presentation. **(SB 5.7) (RSC KR 10)**
5. Information-retrieval skills, in relation to primary and secondary information sources, including information retrieval through on-line computer searches. **(SB 5.7) (RSC KR 10)**
6. Information-technology skills such as word-processing and spreadsheet use, data-logging and storage, Internet communication, etc. **(SB 5.7) (RSC KR 10)**
7. Interpersonal skills, relating to the ability to interact with other people and to engage in team working within a professional environment. M.Chem. The ability to communicate and interact with professionals from other disciplines. **(SB 4.4, 5.7, 5.8) (RSC KR 7, 10)**
8. Time-management and organisational skills, as evidenced by the ability to plan and implement efficient and effective modes of working. Self-management and organisational skills with the capacity to support life-long learning. M.Chem: Effective research costing and planning. **(SB 5.7) (RSC KR 7, 10)**
9. Study skills needed for continuing professional development and professional employment. M.Chem: Study skills relevant to a career in the chemical sciences. **(SB 5.7) (RSC KR 10)**
10. F108 Year in Industry - The ability to function effectively in an industrial or commercial environment. **(RSC KR 9)**
11. M.Chem: The ability to exercise initiative and personal responsibility. The ability to make decisions in complex and unpredictable situations. Independent learning ability required for continuing professional development. **(SB 5.8) (RSC KR 11)**

Teaching/learning and assessment methods and strategies used to enable the programme learning outcomes to be achieved and demonstrated.

Teaching & Learning

- Taught skills modules, team activities, oral presentations, poster presentations and research projects, interviews and year in industry (F108 only).
- Lectures given by a wide variety of teachers, examples classes and workshops.

Assessment

- Coursework/workshop assignments; written unseen examinations; laboratory and project reports; presentations and interviews (F108 only).
- Year in Industry (**C1**, **C2**, **C3**) (F108 only).

The above components will in each case be considered at the appropriate level. In particular at the Master's level the research project will be crucial for developing transferrable skills additional to the BSc and specific to the MChem.

(SB 6) (RSC KR 12)

For more information on the skills developed by individual modules and on the specific learning outcomes associated with any Certificate, Diploma or BA/BSc non-honours awards relating to this programme of study, see the module mapping table, located at the end of this specification.

17 Programme Structures and Requirements, Levels, Modules, Credits and Awards

The parent BSc programme is studied over three years full-time.

The programme is divided into three stages, each stage comprising modules to a total of 120 credits. Students must successfully complete each module in order to be awarded the specified number of credits for that module. One credit corresponds to approximately ten hours of 'learning time' (including all classes and all private study and research). Thus obtaining 120 credits in an academic year requires 1,200 hours of overall learning time. For further information on modules and credits, refer to the Credit Framework at http://www.kent.ac.uk/teaching/qa/credit-framework/creditinfo.html.

Each module and programme is designed to be at a specific level. For the descriptors of each of these levels, refer to Annex 2 of the Credit Framework at http://www.kent.ac.uk/teaching/qa/credit-framework/creditinfoannex2.html. To be eligible for the award of an honours degree students must obtain 360 credits, at least 210 of which must be at Level 5 or above, including at least 90 credits at level 6 or above at Stage 3.

Students successfully completing Stage 1 of the programme and meeting credit framework requirements who do not successfully complete Stage 2 will be eligible for the award of the Certificate in Chemistry. Students successfully completing Stage 1 and Stage 2 of the programme and meeting Credit Framework requirements who do not successfully complete Stage 3 will be eligible for the award of the Diploma in Chemistry. Students successfully completing Stage 2 of the programme and achieving 300 credits overall including at least 60 credits at level 6 or above in Stage 3 and meeting Credit Framework requirements will be eligible for the award of a BSc non-honours degree.

Students successfully completing Stage 2 and also the placement year/year abroad and meeting credit framework requirements will be eligible for the award of the Diploma with a Year in Industry/with a Year Abroad.

For further information, refer to the Credit Framework at https://www.kent.ac.uk/teaching/qa/credit-framework/creditinfo.html#exit-awards.

Compulsory modules are core to the programme and must be taken by all students studying the programme. Optional modules provide a choice of subject areas, from which students will select a stated number of modules.

Where a student fails a module(s) due to illness or other mitigating circumstances, such failure may be condoned, subject to the requirements of the Credit Framework and provided that the student has achieved the programme learning outcomes. For further information, refer to the Credit Framework at http://www.kent.ac.uk/teaching/qa/credit-framework/creditinfo.html.

Where a student fails a module(s), but has marks for such modules within 10 percentage points of the pass mark, the Board of Examiners may nevertheless award the credits for the module(s), subject to the requirements of the Credit Framework and provided that the student has achieved the programme learning outcomes. For further information, refer to the Credit Framework.

Because of the intellectually progressive nature of this degree programme, each year's study builds on that of the previous year, and requires successful completion of all of the previous year's study as a pre-requisite. For this reason, Boards of Examiners will NOT permit the trailing of any modules.

Foundation and Stage 1 must be passed without any modules being compensated in order to progress into the next stage of a degree programme. A module may be condoned if the Board of Examiners is satisfied that the programme learning outcomes have been met. Completion of the Foundation year does not confer any academic award; it is purely a qualifying stage.

In Stages 2, 3 and 4 modules marked (NC) cannot be compensated as they are more than 30 credits or they have unique learning outcomes.

The programmes are divided into three (F107) or four (F108, F109) stages each comprising of 120 credits and students must be awarded all 120 credits before being permitted to proceed to the next stage. For full-time students, each stage represents an academic year of study.

To pass the Foundation Year 120 credits at level 3 or higher must be obtained.

To obtain:
Certificate of Higher Education - at least 120 credits at level 4 or above. The Certificate is only available as an alternative exit award for students who have successfully completed enough credits at Stage 1; Diploma of Higher Education - 240 credits with at least 90 credits at level 5 or above. The Diploma is only available as an alternative exit award for students who have successfully completed enough credits at Stage 2; Non-Honours degree - 300 credits with least 150 credits at level 5 or above including at least 60 credits at level 6 or above. The non-honours BSc in Chemistry is only available as an alternative exit award for students who have successfully completed enough credits at Stage 3; Honours degree - 360 credits with at least 210 credits at level 5 or above and at least 90 credits at level 6 or above; MChem - 480 credits with at least 330 credits at level 5 or above including at least 120 credits at level 7.

For MChem programme*:*
In common with national practice there are progression thresholds in place for the MChem programmes: you must achieve 120 credits and a minimum of 60% as an average mark across your stage 2 modules *in your first attempt* in order to progress into stage 3; a failure to achieve 120 credits and the 60% average will mean that you will be transferred to stage 3 of the BSc programme.
You must achieve 120 credits and a minimum of 55% as an average mark across your stage 3 modules *in your first attempt* modules in order to progress into stage 4; a failure to achieve 120 credits and the 55% average will mean that you will be transferred to the B.Sc. degree, which would be awarded on completion of Stage 3.

For the Year in Industry programme:
You must achieve 120 credits *in your first attempt* at your stage 1 modules and a minimum of 60% as an average mark across your stage 1 modules in order to progress into stage 2; a failure to achieve 120 credits in your first attempt and a minimum of 60% as an average mark across your stage 1 modules will mean that you will be transferred to a non-year in industry programme.

For the Year Abroad programme:
You must achieve 120 credits in your first attempt at your stage 1 modules and an overall mark of 60% or greater as an average over all assessments in order to progress into stage 2; Students must also achieve a threshold of 120 credits and an overall average mark of 60% (overall average mark) after the Stage 2 May exams. (This deadline is necessary due to the time required to arrange an exchange placement in the following months.) If students don't meet this threshold they will be obliged to change their registration to a non-Year Abroad programme.

KV Code	Code	Title	Level	Credits	Term(s)
Foundation Year (*International foundation students will take modules LZ013 and LZ021 in lieu of PH022, PH020, and PS023) (NC: Non-Compensatable)					
Compulsory Modules – 120 credits					
PHYS0022NC,*	PH022NC,*	Graphs, Geometry and Trigonometry	3	15	1 & 2
PHYS0020NC,*	PH020NC,*	Algebra and Arithmetic	3	15	1
PSCI0021NC	PS021NC	Molecules and Analysis	3	30	1

PSCI0022NC	PS022NC	Chemical Reactivity	3	30	2
PSCI0023NC*	PS023NC*	Properties of Matter	3	30	1 & 2
Stage 1					
Compulsory Modules – 120 credits					
CHEM3080NC	CH308NC	Molecules, Matter and Energy	4	15	1 & 2
CHEM3090NC	CH309NC	Fundamental Organic Chemistry for Physical Scientists	4	15	1
CHEM3140NC	CH314NC	Introduction to Biochemistry and Drug Chemistry	4	15	1 & 2
CHEM3200NC	CH320NC	Chemical Reactions	4	15	1 & 2
CHEM3820NC	CH382NC	Chemical Skills	4	30	1 & 2
CHEM3160NC	CH316NC	Computing Skills	4	15	2
CHEM3150NC	CH315NC	Disasters	4	15	1
Stage 2					
Compulsory Modules – 120 credits					
CHEM5040	CH504	Organic Reaction Mechanisms	5	15	1 & 2
CHEM5060	CH506	Chemical Identification Techniques	5	15	1 & 2
CHEM5300	CH530	Polymeric and Organic Materials	5	15	1 & 2
CHEM5310	CH531	Thermodynamics and Kinetics	5	15	1 & 2
CHEM5320	CH532	Spectroscopy and Bonding	5	15	1 & 2
CHEM5330	CH533	Materials and Solid State Chemistry	5	15	1 & 2
CHEM5340	CH534	Inorganic and Environmental Chemistry	5	15	1 & 2
PSCI5120	PS512	Numerical, Statistical and Analytical Skills	5	15	1 & 2
Year in Industry					
Compulsory Modules – 120 credits					
PSCI5910	PS591NC	Industrial Placement Experience	I	90	1, 2 & 3
PSCI5920	PS592NC	Industrial Placement Assessment	I	30	1, 2 & 3
Year Abroad					
Compulsory Modules – 120 credits					
PSCI5930	PS593(NC)	Year Abroad	5	120	1, 2 & 3
Stage 3					
Compulsory Modules – 75 credits (all programmes)					
CHEM6040	CH604	Analytical Chemistry	6	15	1 & 2
CHEM6220	CH622	Topics in Inorganic Synthetic Chemistry	6	15	1 & 2

CHEM6230	CH623	Main Group and Organometallic Chemistry	6	15	1 & 2
CHEM6240	CH624	Transformations and Chirality in Organic Chemistry	6	15	1 & 2
PSCI7010	PS701	Topics in Functional Materials	7	15	1 & 2
Compulsory Modules – 30 credits (BSc and BSc with a Year in Industry only)					
CHEM6200	CH620NC	Research Project	6	30	1 & 2
Compulsory Modules – 30 credits (MChem only)					
PSCI7200	PS720	Advanced Forensic Project Laboratory	7	30	1 & 2
Optional Modules Students must select 15 credits from the list of optional modules approved by the School of Physical Sciences					
Stage 4					
Compulsory Modules – 120 credits					
CHEM7400NC	CH740NC	MChem Research Project	7	75	1 & 2
CHEM7410	CH741	Computational Chemistry	7	15	1 & 2
CHEM7420	CH742	Advanced Concepts in Physical and Inorganic Chemistry	7	15	1 & 2
CHEM7430	CH743	Modern Molecular Synthesis	7	15	1 & 2

18 Work-Based Learning

Disability Statement: Where disabled students are due to undertake a work placement as part of this programme of study, a representative of the University will meet with the work placement provider in advance to ensure the provision of anticipatory and reasonable adjustments in line with legal requirements.

Where relevant to the programme of study, provide details of any work-based learning element, inclusive of employer details, delivery, assessment and support for students.

- Industrial placement coordinator oversees the programme.
- Member of staff visits the student on two occasions during their placement.
- If for any reason the industrial placement cannot be undertaken the student can transfer to another programme.
- If placement is terminated early full support is given in order to find a substitute placement.
- Assessment by way of presentation, written submission, and employer's final report.
- Workplace learning dependent upon student's role and nature of placement.

19 Support for Students and their Learning

- School and University induction programme
- Programme/module handbooks
- Library services http://www.kent.ac.uk/library
- Student Support http://www.kent.ac.uk/studentsupport
- Student Wellbeing www.kent.ac.uk/studentwellbeing
- Centre for English and World Languages http://www.kent.ac.uk/cewl/index.html

- Student Learning Advisory Service http://www.kent.ac.uk/uelt/about/slas.html
- PASS system https://www.kent.ac.uk/teaching/qa/codes/taught/annexg.html
- Academic Adviser system https://www.kent.ac.uk/teaching/advisers/index.html
- Kent Union www.kentunion.co.uk
- Careers and Employability Services www.kent.ac.uk/ces
- Counselling Service https://www.kent.ac.uk/studentwellbeing/counselling
- Information Services (computing and library services) www.kent.ac.uk/is
- Undergraduate student representation at School, Faculty and Institutional levels
- International Recruitment Office https://www.kent.ac.uk/internationalstudent; International Partnerships Office https://www.kent.ac.uk/global/partnerships
- Medical Centre https://www.kent.ac.uk/studentwellbeing/medicalcentre.html
- General Regulations, Students' Union Code of Practice, Student Charter (University Handbook)
- Induction programme
- Library provision of recommended textbooks
- Departmental handbooks for Stages 1, 2 and 3 (on the school website)
- Laboratories and IT-equipped study rooms
- University central support services, via Unit for the Enhancement of Learning & Teaching, careers service, medical centre, counselling service, etc

20 Entry Profile

The minimum age to study a degree programme at the university is normally at least 17 years old by 20 September in the year the programme begins. There is no upper age limit.

20.1 **Entry Route**

For current information, please refer to the University prospectus.

You must be able to satisfy the general admissions requirements of the University and of the School of Physical Sciences in one of the following ways:

All Programmes: *International students for whom English is not the first language an average 6.5 in IELTs test, minimum 6.0 in reading and writing is required.*

Foundation Year

- Completion of Foundation Year.

A/AS Levels

- BBB in 3 A-level subjects including B or higher in A-level Chemistry.- BSc
- ABB in 3 A-level subject including A or higher in A-level Chemistry - MChem
- Five grade 'C' GCSE passes which should include Maths, English Language and a minimum grade C in double science.

International Baccalaureate

- 34 points overall or 15 points at Higher Level, including HL Chemistry at 5.
- GCSE equivalents: HL English A1/A2/B at 4/5/5 or SL English A1/A2/B at 5/6/6 and any Maths at 4.

BTEC: An appropriate National Diploma with a good standing including Merit and Distinction passes in appropriate units.

Foundation year course F105:

Two A levels at grade D to include Chemistry and a second science.

Five grade 'C' GCSE passes which should include Maths and English Language and minimum grade C in double science.

Mature and overseas students considered on an individual basis

- Admission with exemptions for advanced standing and Credit Accumulation may be possible.
- Access Courses: A Science Access programme including Chemistry credits at level 3 would be required.

Degree: A degree from a British University or CNAA degree.

20.2 **What does this programme have to offer?**

- A structured opportunity to gain the numeracy, theoretical and practical problem-solving and communication skills so highly regarded by employers including those employers outside the chemical sector.
- A broad training in the chemical sciences which is good preparation for a wide range of careers in chemical, forensic and analytical science, manufacturing and service industries, education, the media and the financial sector.
- High rates of graduate employment.
- A significant computational element will equip graduates with programming and computer modelling and simulation skills that are becoming ever more important in the technological chemical landscape of the 21st century.
- Training in selected advanced chemistry subjects and methods.
- The opportunity to spend a year employed in the area of chemical science (F108).
- A thorough training in a stimulating learning environment, to equip graduates to collaborate and compete successfully with others throughout subsequent careers.
- MChem. Preparation for a role in research or progression to PhD.
- Year Abroad. The opportunity to access Science modules and different educational cultures via study at universities abroad.

20.3 **Personal Profile**

- Students will have a fascination with, and a desire to understand chemistry.
- Suitable levels of numeracy and IT skills and/or a willingness to develop them.
- A commitment to develop the skills required to be a professional scientist.
- MChem: The ability and desire to achieve a more research orientated goal.
- Active staff development programme.
- Continuous monitoring of student progress and attendance.
- Vetting process of examination questions by module team, examinations office and external examiners.
- External examiners' reports.
- Periodic programme review.
- Annual staff appraisal.
- Mentoring/PGCHE training for new lecturers.
- QAA subject review.

21 **Methods for Evaluating and Enhancing the Quality and Standards of Teaching and Learning**

21.1 **Mechanisms for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards**

- Student module evaluations
- Annual programme and module monitoring reports
  http://www.kent.ac.uk/teaching/qa/codes/taught/annexe.html

- External Examiners system http://www.kent.ac.uk/teaching/qa/codes/taught/annexk.html
- Periodic programme review http://www.kent.ac.uk/teaching/qa/codes/taught/annexf.html
- Annual staff appraisal
- Peer observation
- Quality Assurance Framework http://www.kent.ac.uk/teaching/qa/codes/index.html
- QAA Higher Education Review http://www.qaa.ac.uk/InstitutionReports/types-of-review/higher-education-review/Pages/default.aspx
- External accreditation by Royal Society of Chemistry
- Student module/lecturer valuations
- Staff/Student Liaison Committee
- Student representation on boards of studies, staff meetings, faculty committees

21.2 **Committees with responsibility for monitoring and evaluating quality and standards**

- Staff-Student Liaison Committee
- School Education Committee
- Faculty Education Committee
- Faculty Board
- Education Board
- Board of Examiners

21.3 **Mechanisms for gaining student feedback on the quality of teaching and their learning experience**

- Student module evaluations
- Staff-Student Liaison Committee
- Student rep system (School, Faculty and Institutional level)
- Annual NSS

21.4 **Staff Development priorities include:**

- PGCHE requirements
- HEA (associate) fellowship membership
- Annual appraisals
- Institutional Level Staff Development Programme
- Academic Practice Provision (PGCHE, other development opportunities)
- Professional body membership and requirements
- Programme team meetings
- Research seminars
- Conferences
- Study leave
- Equality, Diversity and Inclusivity (EDI) awareness
- Minimum expected qualification for appointment

22 **Indicators of Quality and Standards**

- Results of periodic programme review (April 2016)
- Professional accreditation (Royal Society of Chemistry)

- QAA Higher Education Review 2015
- Annual External Examiner reports
- Annual programme and module monitoring reports

22.1 **The following reference points were used in creating these specifications:**

- QAA UK Quality Code for Higher Education http://www.qaa.ac.uk/assuring-standards-and-quality
- QAA Benchmarking statements for Chemistry (2014)
- Accreditation requirements of Royal Society of Chemistry
- School and Faculty plan
- University Plan https://www.kent.ac.uk/about/plan and Learning and Teaching Strategies https://www.kent.ac.uk/uelt/strategies/lta.html
- Staff research activities
- Kent Inclusive Practices (https://www.kent.ac.uk/studentsupport/accessibility/inclusive-practice.html)
- Royal Society of Chemistry accreditation documentation

23 **Inclusive Programme Design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the programme is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

Programme Title: MChem/BSc (Hons) Chemistry

	Stage 1								Stage 2								Industry		Stage 3									Stage 4			
	CH308	CH309	CH314	CH320	CH382	CH316	CH315		CH504	CH506	CH530	CH531	CH532	CH533	CH534	PS512	PS591	PS592	CH604	CH620	CH622	CH623	CH624	PS601	PS637	PS701	PS720	CH741	CH742	CH743	CH740
Programme Learning outcomes Knowledge and Understanding:																															
A1	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
A2	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	x	x	x	x
A3	x	x	x	x	x	-	-		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
A4	-	-	-	-	-	-	-		-	-	-	-	-	x	-	-	x	x	-	x	x	x	x	x	x	x	-	x	x	x	x
Intellectual Skills:																															
B1	x	x	x	x	x	x	-		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
B2	-	-	-	x	x	x	-		-	x	-	-	-	-	-	x	x	x	-	x	x	x	x	x	x	-	x	x	x	x	x
B3	-	-	-	-	-	x	x		-	x	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	x
B4	-	-	-	-	-	-	x		-	-	-	-	-	-	-	-	x	x	-	x	-	-	-	-	-	-	-	-	-	-	x
Subject-specific Skills:																															
C1	-	-	-	x	x	-	-		x	-	x	x	x	x	x	x	x	-	-	-	x	x	-	-	x	-	x	-	-	-	x
C2	-	-	-	x	x	-	-		x	-	x	x	x	x	x	x	x	x	x	-	x	x	-	-	x	-	x	-	-	-	x
C3	-	-	-	x	x	-	x		x	-	x	x	x	x	x	x	x	x	x	x	x	x	-	x	x	-	x	x	-	-	x
C4	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	x	x	-	x	-	-	-	-	-	-	-	-	-	-	x
C4B	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	x
Transferable Skills:																															
D1	-	-	-	x	x	-	x		x	x	x	x	x	x	x	x	x	x	-	x	x	x	x	-	-	-	-	-	-	-	x
D2	-	-	-	x	x	-	x		x	x	x	x	x	x	x	x	x	x	-	x	x	x	x	x	x	-	-	x	-	x	x
D3	-	-	-	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	-	x	x	x	x	x
D4	-	-	-	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	-	x	x	-	x	x	-	-	x
D5	-	-	-	-	-	-	x		-	x	-	-	-	-	-	-	x	x	-	x	-	-	-	-	x	-	-	x	x	x	x
D6	-	-	-	-	-	x	x		-	-	-	-	-	-	-	-	x	x	-	x	-	-	-	-	x	-	-	x	x	-	x
D7	-	-	-	x	x	-	x		x	x	x	x	x	x	x	x	x	-	-	x	x	x	x	-	x	-	-	-	-	-	x
D8	-	-	-	x	x	x	x		x	x	x	x	x	x	x	x	x	x	-	x	x	x	x	x	x	-	-	x	-	x	x
D9	-	-	-	-	-	-	x		-	-	-	-	-	-	-	-	x	x	-	x	-	-	-	-	-	-	-	x	-	x	x
D10	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-
D11	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	x	x	x	x

BSc/BSc + year in Industry Only	Option	MChem only