



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

School of Chemistry

Junior Sophister Handbook 2018–2019

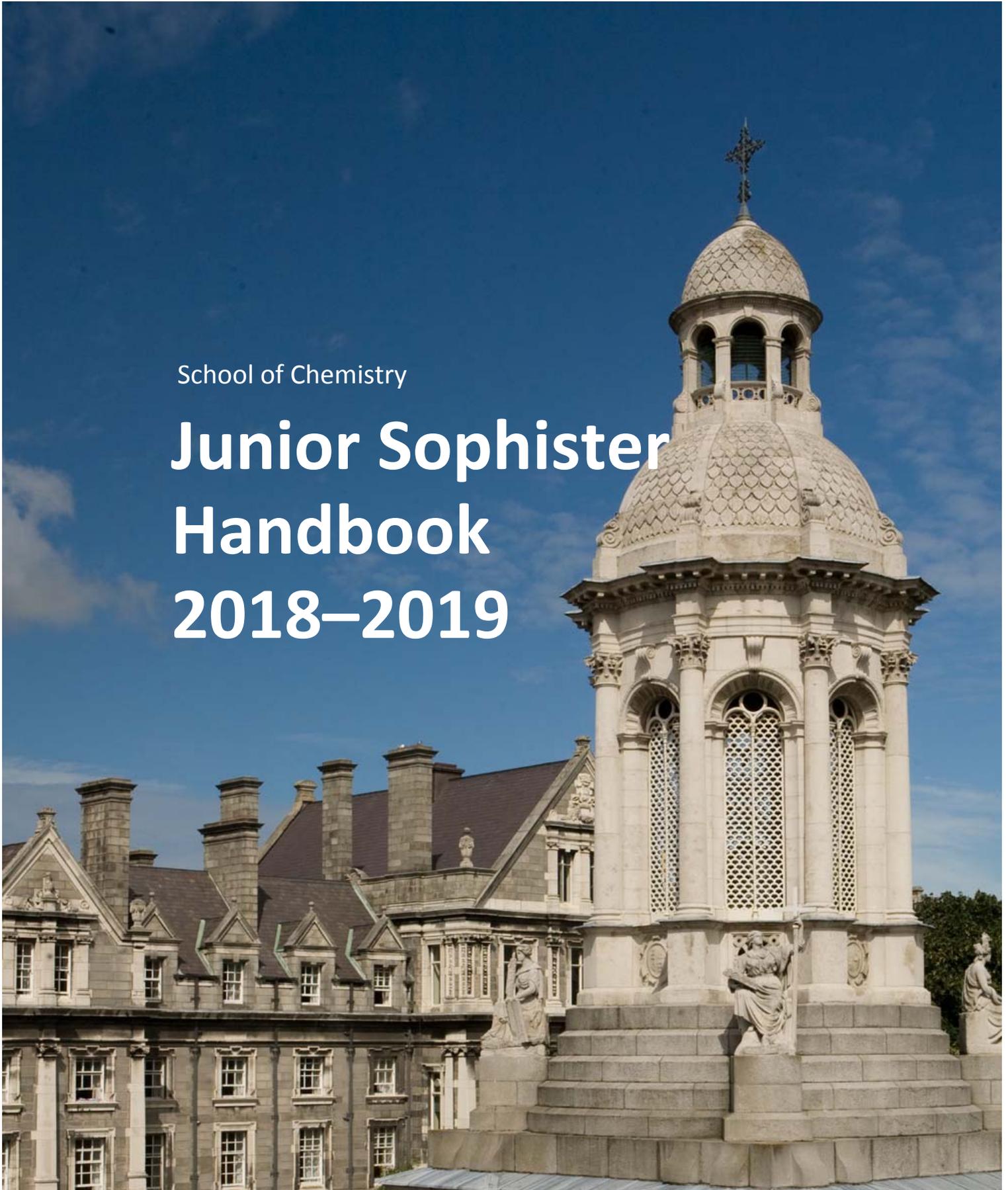


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Alternative formats of this Handbook can be made available upon request. A large-print hard copy is also available to view in the School Office.

Course-specific webpages

Each course offered by the School has a dedicated webpage. For those in N-PCAM, there is also a dedicated nanoscience website at <http://www.tcd.ie/nanoscience/>.

http://chemistry.tcd.ie/Study/current_students/undergraduate/chemistry/js/index.php

http://chemistry.tcd.ie/Study/current_students/undergraduate/medicinal-chemistry/js/

http://chemistry.tcd.ie/Study/current_students/undergraduate/CMM/js/

and

http://chemistry.tcd.ie/Study/current_students/undergraduate/N-PCAM/index.php

Emergency Procedure

In the event of an emergency, dial Security Services on extension **1999**.

Security Services provide a 24-hour service to the college community, 365 days a year. They are the liaison to the Fire, Garda and Ambulance services and all staff and students are advised to always telephone extension 1999 (+353 1 896 1999) in case of an emergency.

Should you require any emergency or rescue services on campus, you must contact Security Services. This includes chemical spills, personal injury or first aid assistance. It is recommended that all students save at least one ICE (in case of emergency) phone number in their mobile phones.

Contact Details

Position	Person	E-mail	Phone
Head of School	Prof. Mike Lyons	melyons@tcd.ie	896 1423
Director of Teaching and Learning (DTLUG)	Prof. Paula Colavita	colavitp@tcd.ie	896 3562
Associate DTLUG	Prof. Eoin Scanlan	scanlae@tcd.ie	896 2514
JS Year Coordinator	Prof. Mike Southern	southerj@tcd.ie	896 3411
MedChem Director	Prof. Mathias Senge	sengem@tcd.ie	896 8537
CMM Director	Prof. Graeme Watson	watsong@tcd.ie	896 1357
N-PCAM Director	Prof. Hongzhou Zhang	Hongzhou.Zhang@tcd.ie	896 4655
School Manager	Dr. Sinéad Boyce	sboyce@tcd.ie	896 4587
School Office	Ms. AnneMarie Farrell	farrea25@tcd.ie	896 1726
School Office	Ms. Jennifer McHugh	mchughj7@tcd.ie	896 2040
Global Officer	Dr. Niamh McGoldrick	nmcgoldr@tcd.ie	896 3463

Contact details for all staff in the School can be found at <http://chemistry.tcd.ie/staff/>

Information for all School of Chemistry JS Students

Junior Sophister 2018/19

Welcome to the School of Chemistry for your JS year. We hope that you have a wonderful experience in a year that is quite a transition from the earlier JF and SF years. The JS and SS years bring about more in-depth chemistry education than you have experienced before, with greater emphasis on theoretical as well as practical education and training. We wish you all the best for this academic year and the staff in the school look forward to working with you. The JS Year Coordinator is Prof. Mike Southern (southerj@tcd.ie).

Introduction to Chemistry at TCD

Chemistry holds a key position among the sciences. It involves the study of matter, i.e., the composition, structure and properties of substances and the changes they undergo. Life on earth owes its origin to a series of these chemical changes. Formal chemistry teaching in TCD commenced in August 1711 as part of the new School of Medicine. The Cocker laboratories provide facilities for the teaching of preparative inorganic and organic chemistry. The Sami Nasr Institute for Advanced Materials (SNIAM) building provides *ca.* 1500 m² of accommodation for the School of Chemistry. This includes a Physical Chemistry teaching laboratory and six research laboratories that house *ca.* 40 researchers. This institute also houses the School of Physics. Computational Chemistry research is housed in the Lloyd Institute on a multidisciplinary computational-science floor comprising researchers from Mathematics, Physics, Chemistry and High Performance Computing. In addition, chemists play an important role in interdisciplinary research taking place in two of TCD's newer research institutes: (i) The Centre for Research on Adaptive Nanostructures and Nanodevices ([CRANN](#)) and (ii) the Trinity Biomedical Sciences Institute ([TBSI](#)).

Moderatorships in Chemistry

The School of Chemistry currently offers four QQI-NFQ Level-8 moderatorships, namely Science (Chemistry), Medicinal Chemistry (MedChem), Chemistry with Molecular Modelling (CMM), and Nanoscience, Physics and Chemistry of Advanced Materials (N-PCAM), which is a shared course between the Schools of Physics and Chemistry. All of the direct-entry courses were developed in response to changes in the modern subject and identified needs for graduates with special skills

in Ireland. In future, incoming JF students will enter chemistry through a common pathway, [TRO61, Chemical Sciences](#) and will select their moderatorship in their Senior Fresh year.

Staff, Research and Facilities

The School currently has 25 academic staff and 14 technical staff. The School has an active research programme, with approximately 130 postgraduate students and postdoctoral researchers. They study a wide range of chemistry subjects in fields such as organic, inorganic, organometallic, physical, theoretical, medicinal, analytical, material, polymer, environmental, and supramolecular chemistry. Research income is earned from national, international and commercial sources and the School has held grants in all relevant research programmes funded by the EU.

The College also fosters an interdisciplinary approach to research, with members of the School having strong links with colleagues in the physical, medical, technological and biological sciences both within College, nationally and internationally.

The School is well equipped for its research activities, having Bruker 600 and 400 MHz and access to an Agilent 400 MHz high-field multi-nuclear NMR, FTIR, dispersive IR and UV-Vis spectrometers, high performance liquid chromatography (HPLC) and gas chromatography (GC) equipment, a Bruker SMART Apex Kappa Duo, Bruker D8 Quest ECO single crystal and a Bruker D2 Phaser powder diffractometer, a Micromass LCTTM (TOF) mass spectrometer, thermogravimetric analysis and differential scanning calorimetry, dynamic light scattering, several spectrofluorimeters for steady-state and time-resolved fluorescence measurements, circular and linear dichroism, and a large range of wave generators and potentiostats for cyclic voltammetry.

Lectures

Lectures should begin on the hour and end 50 minutes later. Timetables will be published through the portal my.tcd.ie and should be checked regularly for changes to the original schedule.

Module descriptors and learning outcomes for your modules are available on Blackboard.

Attendance at lectures may be recorded. Lecture notes/quizzes will be provided through

Blackboard (<https://tcd.blackboard.com/webapps/login/>) and details related to fees, assessment,

exam timetables etc. can be found on the Academic Registry's website at

<https://www.tcd.ie/academicregistry/>.

Practicals

In the JS year, practical classes take place over one-and-a-half days each week. In **Semester 1** there are 6 weeks of organic chemistry and 4 weeks of inorganic chemistry in the Cocker lab; in **Semester 2**, there are 2 weeks of inorganic chemistry in the Cocker lab and 6/7 weeks of physical chemistry in the Physical Chemistry lab in the SNIAM building. Practical work is assessed in-course, with the lab marks obtained in each discipline contributing to 50% of the overall mark for the 10-ECTS modules CHU33103 (inorganic), CHU33203 (organic) and CHU33304 (physical).

Attendance at chemistry practical classes is compulsory for students. **You may be deemed non-satisfactory if you fail to attend and/or submit more than a third of the required coursework for any module.**

Examinations

An overall pass mark of 40% is required to proceed to the Senior Sophister year. Students who successfully complete their JS year may opt to leave with a level-7 ordinary B.A. (B.A.(Ord.)). Full details of the Junior Sophister Science (TR071) examination regulations may be found in the Appendices. The same regulations apply to the School's direct-entry courses. Past examination papers are available from the Academic Registry's website (<https://www.tcd.ie/academicregistry/exams/past-papers/annual/>) and can be used to familiarize yourself with the structure of examination papers. The JS Chemistry mark contributes to **35%** of the final Moderatorship degree mark. Further information can be found in Appendix 1.

Feedback and Evaluation

The courses offered by the School benefit from student feedback. Rather than waiting until the end of a module to request online feedback, the School of Chemistry has instituted a Sophister Liaison Committee (SLC). Committee members comprise the DTLUG/Associate DTLUG, the School Convenor, JS and SS class reps, and Heads of Discipline or their representatives and the meetings are minuted. Class reps should collate feedback from their fellow students to bring to the meeting, which takes place at least once per semester.

Academic Year Structure

[Academic Year Structure 2018/19](#)

Key Dates

*JS Safety Workshop	Thursday 6 September 2018
Study/Review Weeks:	Monday 22 October to Friday 26 October 2018
Revision Week Semester 1:	Monday 3 December to Friday 7 December 2018
Study/Review Week:	Monday 4 March to Friday 8 March 2019
Revision Week Semester 2:	Monday 15 April to Friday 19 April 2019
Trinity week:	Monday 29 April to Friday 3 May 2019
Formal Assessment weeks	
Semester 1 examinations	Saturday 8 December to Friday 14 December 2018
Semester 2 examinations	Tuesday 23 April to Saturday 27 April 2019 (and Tuesday 30 April and Thursday 2 May 2019 if required)

*Attendance at the safety workshop is compulsory for all JS students as advised previously

Seminars and Special Lectures

You are expected to attend the School's research seminars, which are held at noon on Thursdays during both semesters. Talks will be advertised on the School website at <http://chemistry.tcd.ie/>. During the year, lectures on various topics will be arranged by the School, the Werner Chemical Society, the Royal Society of Chemistry and/or the Institute of Chemistry of Ireland. You will find many of them interesting and valuable. Attendance at these lectures is recorded.

Preparation for the Senior Sophister Year

JS year is the time to investigate your options regarding where to carry out your final-year capstone project. Semester 1 of the Senior Sophister year is spent working full-time on a research project in TCD, in industry or at a university abroad. The School encourages interested students to go abroad if they so wish. Those achieving a grade of II-1 or higher in their JS year will have automatic approval to go abroad but for those with lower grades, the request will be reviewed on a case-by-case basis. Arrangements for projects abroad are made in the JS year and will be coordinated by Prof. Peter Dunne (P.W.Dunne@tcd.ie; ext. 4449).

Modules to be taken in JS Year of Moderatorship in Chemistry

This academic year will be based on the following 60 ECTS:

Core modules/Practical labs: 55 ECTS

Optional Module or Broad Curriculum: 5 ECTS

Year Coordinator: Prof. Mike Southern (southerj@tcd.ie; 896 3411)

Core Modules:

Semester 1 (11 weeks)	Semester 2 (11 weeks)
<p>Inorganic Chemistry I CHU33103: Organometallics & Coordination Chemistry (10 ECTS) Organometallics (11L) Transition metal compounds and complexes (11L) Inorganic reaction mechanisms and homogenous catalysis (11L) Inorganic-chemistry lab marks (5 ECTS) from labs in weeks 11-14 and 22-23 will be included in the mark for this module</p>	<p>Inorganic Chemistry II CHU33104: Solid State Materials (5 ECTS) Inorganic polymers (11L) Structural inorganic chemistry (7L) Characterisation techniques of solid state materials (9L) Surface science (6L)</p>
<p>Organic Chemistry I CHU33203: Synthetic Organic Chemistry I (10 ECTS) Organometallic C-C couplings (9L) Pericyclic reactions, FMO theory & stereoelectronic effects (15L) Physical organic chemistry (9L) Organic-chemistry lab marks (5 ECTS) from labs in weeks 4-8 and week 10 will be included in the mark for this module</p>	<p>Organic Chemistry II CHU33204: Synthetic Organic Chemistry II (5 ECTS) Heterocyclic chemistry (9L) Organoheteroatom chemistry (15L) FGI and retrosynthesis (9L)</p>

Semester 1 (11 weeks)	Semester 2 (11 weeks)
<p>Physical Chemistry I CHU33303: Quantum Mechanical Concepts in Physical Chemistry (5 ECTS) Quantum mechanics (15L) Spectroscopy (9L) Group theory (9L)</p>	<p>Physical Chemistry II CHU33304: Molecular Thermodynamics and Kinetics (10 ECTS) Molecular thermodynamics & statistical mechanics (15L) Electrochemistry (9L) Kinetics (9L) Physical-chemistry lab marks (5 ECTS) from labs in weeks 25-27 and 29-32 will be included in the mark for this module</p>
<p>Interdisciplinary Module I CHU33403: Analytical Methods (5 ECTS) Analytical chemistry (11L) Organic spectroscopy (11L) Structural methods in inorganic chemistry (11L)</p>	<p>Interdisciplinary Module II CHU33404: Biomaterials and Macromolecules (5 ECTS) Bioorganic chemistry & natural products (11L) Bioinorganic chemistry (11L) Soft matter (11L)</p>
<p>CHU33080 JS Chemistry Labs This is a laboratory module broadening the student's knowledge of Physical, Organic and Inorganic Chemistry. As indicated above, 5 ECTS of lab marks will be rolled in with the exam marks for modules CHU33103, CHU33203 and CHU33304.</p>	

Optional Modules:

CHU33441 – Introduction to Medicinal Chemistry (5 ECTS)

This module covers fundamental medicinal chemistry. It encompasses an introduction to medicinal chemistry, antiviral and anticancer chemistry, and the computational method QSAR.

OR

Broad Curriculum (5 ECTS; http://www.tcd.ie/Broad_Curriculum/). Please note that you can obtain a registration form for the Broad Curriculum modules from the School Office. If choosing a Broad Curriculum module, you must inform the School Office of the module you are taking.

Please note that when lectures are provided by lecturers from schools other than the School of Chemistry or where there is a practical element, the number of lectures may vary slightly from those indicated/the standard 33 contact hours per module.

Modules to be taken in JS Year of Moderatorship in Medicinal Chemistry

Course Director: Prof. Mathias Senge (sengem@tcd.ie; 896 8537)

Semester 1 (11 weeks)	Semester 2 (11 weeks)
<p>Inorganic Chemistry I</p> <p>CHU33103: Organometallics & Coordination Chemistry (10 ECTS)</p> <p>Organometallics (11L)</p> <p>Transition metal compounds and complexes (11L)</p> <p>Inorganic reaction mechanisms and homogenous catalysis (11L)</p> <p>Inorganic-chemistry lab marks (5 ECTS) from labs in weeks 11-14 and 22-23 will be included in the mark for this module</p>	<p>Physical Chemistry II</p> <p>CHU33304: Molecular Thermodynamics and Kinetics (10 ECTS)</p> <p>Molecular thermodynamics & statistical mechanics (15L)</p> <p>Electrochemistry (9L)</p> <p>Kinetics (9L)</p> <p>Physical-chemistry lab marks (5 ECTS) from labs in weeks 25-27 and 29-32 will be included in the mark for this module</p>
<p>Organic Chemistry I</p> <p>CHU33203: Synthetic Organic Chemistry I (10 ECTS)</p> <p>Organometallic C-C couplings (9L)</p> <p>Pericyclic reactions, FMO theory & stereoelectronic effects (15L)</p> <p>Physical organic chemistry (9L) Organic-chemistry lab marks (5 ECTS) from labs in weeks 4-8 and week 10 will be included in the mark for this module</p>	<p>Organic Chemistry II</p> <p>CHU33204: Synthetic Organic Chemistry II (5 ECTS)</p> <p>Heterocyclic chemistry (9L)</p> <p>Organoheteroatom chemistry (15L)</p> <p>FGI and retrosynthesis (9L)</p>
<p>Interdisciplinary Module I</p> <p>CHU33403: Analytical Methods (5 ECTS)</p> <p>Analytical chemistry (11L)</p> <p>Organic spectroscopy (11L)</p> <p>Structural methods in inorganic chemistry (11L)</p>	<p>Interdisciplinary Module II</p> <p>CHU33404: Molecular Thermodynamics and Kinetics (10 ECTS)</p> <p>Molecular thermodynamics & statistical mechanics (15L)</p> <p>Electrochemistry (9L) & Kinetics (9L)</p> <p>Physical-chemistry lab marks (5 ECTS) from labs in weeks 25-27 and 29-32 will be included in the mark for this module</p>

Semester 1 (11 weeks)	Semester 2 (11 weeks)
<p>CHU33447: Biochemistry and Pharmaceutical Chemistry (5 ECTS) Protein structure, function, activity and regulation (16L) Receptors, drugs and the autonomic nervous system (9L) Anti-infective agents (11L)</p>	<p>CHU33441: Introduction to Medicinal Chemistry (5 ECTS) Introduction to medicinal chemistry (16L) Antiviral, anticancer chemistry and QSAR (16L+ 5P)</p>
	<p>Medicinal Chemistry – CHU33446: Microbiology and Pharmacology (5 ECTS) Antimicrobial agents (12L) Steroids (10L) Antimalarial chemistry (11L)</p>
<p>CHU33480 JS MedChem Labs This is a laboratory module broadening the student's knowledge in Physical, Organic and Inorganic Chemistry. As indicated above, lab marks will be rolled in with the exam marks for modules CHU33103, CHU33203 and CHU33304</p>	

Please note that when lectures are provided by lecturers from schools other than the School of Chemistry or where there is a practical element, the number of lectures may vary slightly from those indicated/the standard 33 contact hours per module.

Modules to be taken in JS Year of Moderatorship in Chemistry with Molecular Modelling

Course Director: Prof. Graeme Watson (watsong@tcd.ie; 896 1357)

Semester 1 (11 weeks)	Semester 2 (11 weeks)
<p>Inorganic Chemistry I CHU33103: Organometallics & Coordination Chemistry (10 ECTS) Organometallics (11L) Transition metal compounds and complexes (11L) Inorganic reaction mechanisms and homogenous catalysis (11L) Inorganic-chemistry lab marks (5 ECTS) from labs in weeks 11-14 and 22-23 will be included in the mark for this module</p>	<p>Inorganic Chemistry II CHU33104: Solid State Materials (5 ECTS) Inorganic polymers (11L) Structural inorganic chemistry (7L) Characterisation techniques of solid state materials (9L) Surface science (6L)</p>
<p>Organic Chemistry I CHU33203: Synthetic Organic Chemistry I (10 ECTS) Organometallic C-C couplings (9L) Pericyclic reactions, FMO theory & stereoelectronic effects (15L) Physical organic chemistry (9L) Organic-chemistry lab marks (5 ECTS) from labs in weeks 4-8 and week 10 will be included in the mark for this module</p>	<p>Organic Chemistry II CHU33204: Synthetic Organic Chemistry II (5 ECTS) Heterocyclic chemistry (9L) Organoheteroatom chemistry (15L) FGI and retrosynthesis (9L)</p>

Semester 1 (11 weeks)	Semester 2 (11 weeks)
<p>Physical Chemistry I</p> <p>CHU33303: Quantum Mechanical Concepts in Physical Chemistry (5 ECTS)</p> <p>Quantum mechanics (15L)</p> <p>Spectroscopy (9L)</p> <p>Group theory (9L)</p>	<p>Physical Chemistry II</p> <p>CHU33304: Molecular Thermodynamics and Kinetics (10 ECTS)</p> <p>Thermodynamics & statistical mechanics (15L)</p> <p>Electrochemistry (9L)</p> <p>Kinetics (9L)</p> <p>Physical-chemistry lab marks (5 ECTS) from labs in weeks 25-27 and 29-32 will be included in the mark for this module</p>
<p>Interdisciplinary Module I</p> <p>CHU33403: Analytical Methods (5 ECTS)</p> <p>Analytical chemistry (11L)</p> <p>Organic spectroscopy (11L)</p> <p>Structural methods in inorganic chemistry (11L)</p>	
<p><i>Over Both Semesters</i></p> <p>CHU33710: Computational Chemistry (10 ECTS)</p> <p>Unix/Linux (4L+8P) – examined by continuous assessment</p> <p>Fortran (16L+32P) – examined by continuous assessment</p> <p>Numerical methods (10L)</p> <p>Static and dynamic atomistic simulation (10L)</p> <p>Computational molecular quantum chemistry (12L)</p>	
<p>CHU33780: JS CMM Labs</p> <p>This is a laboratory module broadening the student's knowledge of Physical, Organic, and Inorganic Chemistry, and of molecular modelling. As indicated above, lab marks will be rolled in with the exam marks for modules CHU33103, CHU33203 and CHU33304.</p>	

Please note that when lectures are provided by lecturers from schools other than the School of Chemistry or where there is a practical element, the number of lectures may vary slightly from those indicated/the standard 33 contact hours per module.

Components contributing to module marks

All exam papers will contain three questions, with each question having a minimum of 25% choice.

The contributions of components to overall module marks are as follows:

Module Code	ECTS	Mark Component Number	Mark Component Description	Contribution to overall mark (%)
CHU33103*	10	1	Exam component	50
		2	Lab component Continuous Assessment	50
CHU33104*	5	1	Exam component	100
CHU33203	10	1	Exam component	50
		2	Lab component Continuous Assessment	50
CHU33204	5	1	Exam component	100
CHU33303	5	1	Exam component	100
CHU33304	10	1	Exam component	50
		2	Lab component Continuous Assessment	50
CHU33305	5	1	Exam component	100
CHU33403	5	1	Exam component	100
CHU33404	5	1	Exam component	100
CHU33441	5	1	Exam component	100
CHU33446	5	1	Exam component	100
CHU33447	5	1	Exam component	100
CHU33710	10	1	Exam component	50
		2	Lab component Continuous Assessment	50

Visiting students

*5-ECTS lecture-only versions of CHU33103 and CHU33203, called CHU3103V and CHU3203V, respectively, are available for visiting students who do not wish to take or are unable to attend the associated labs. Visiting students will attend the same lectures as those taking CHU33103/CHU33203 and will sit the same Sem-1 exam, which will account for 100% of the module marks. Visiting students can also take the 5-ECTS module CHU33305, which corresponds to the lecture-only element of CHU33304.

Prizes

Dr. George A. Lonergan Prize

This prize, value, €381, is awarded annually to the student who gives the best performance in the Junior Sophister year, provided that sufficient merit is shown.

Brian McMurry Prize

This prize was established in 2009 by the friends of Dr Brian McMurry, sometime Professor of Organic Chemistry, on his retirement. It is awarded each year to the Junior Sophister candidate from outside the European Union who is a student of the natural sciences and who obtains the highest overall marks in the annual examinations. Value, €130.

Careers

Since some students will be away from College during the first semester of the SS year, it is desirable that you establish contact with the Careers Office in the JS year. Karina Septore (septorek@tcd.ie), Careers Advisor, will be glad to get your names on file and she will visit the School to explain what the Careers Office can do for you (**13 September from 3pm in the Science Lecture Theatre**). General information can be found at <http://www.tcd.ie/Careers/students/> and a new online service MyCareer is also available to provide advice and help you explore your future options (<https://mycareerconnect.tcd.ie/home.html>)

Career prospects in Chemistry are good, although you should realise that a primary degree may not be enough to gain immediate employment in research and development; an additional qualification, such as a postgraduate diploma or higher degree, could prove useful.

Library

Much of your regular reading will depend on textbooks that are held in the Hamilton Library. In addition, many of the research journals and data collections are available online *via* the Library's website. An introduction to the library's services will be given by Greg Sheaf (on 13 September from 3pm in the Science Lecture Theatre).

Couselling

A representative from Student Counselling, Yvonne Tone, will also attend on 13 September to give you a brief introduction to the support services available.

Graduate Attributes

The Trinity Graduate Attributes represent the qualities, skills and behaviours that you will have the opportunity to develop as a Trinity student over your entire university experience, in other words, not only in the classroom, but also through engagement in co- and extra-curricular activities (such as summer work placements, internships, or volunteering).

The four Trinity Graduate Attributes are:

- To Think Independently
- To Act Responsibly
- To Develop Continuously
- To Communicate Effectively



Why are the Graduate Attributes important?

The Trinity Graduate Attributes will enhance your personal, professional and intellectual development. They will also help to prepare you for lifelong learning and for the challenges of living and working in an increasingly complex and changing world.

The Graduate Attributes will enhance your employability. Whilst your degree remains fundamental, also being able to demonstrate these Graduate Attributes will help you to differentiate yourself as they encapsulate the kinds of transversal skills and abilities, which employers are looking for.

How will I develop these Graduate Attributes?

Many of the Graduate Attributes are 'slow learned', in other words, you will develop them over the four or five years of your programme of study.

They are embedded in the curriculum and in assessments, for example, through undertaking independent research for your final year project, giving presentations and engaging in group work.

You will also develop them through the co-curricular and extra-curricular activities. If you help to run a club or society you will be improving your leadership skills, or if you play a sport you are building your communication and team-work skills.

Useful links to College services and support

- A full listing of support services can be found at <http://www.tcd.ie/students/supports-services/>
- The Senior Tutor's website is <https://www.tcd.ie/seniortutor/>
- The Students Union can be found at <https://www.tcdsu.org/>, with student representation structures detailed at <https://www.tcdsu.org/aboutus>
- A full listing of societies can be found at <http://trinitysocieties.ie/> and sports information is at http://www.tcd.ie/Sport/student-sport/ducac/?nodeId=94&title=Sports_Clubs
- The Academic Registry is at <https://www.tcd.ie/academicregistry/>
- Information and community for mature students can be accessed at <https://www.tcd.ie/maturestudents/>
- Details of how your data will be handled under GDPR (General Data Protection Rules) are available at https://www.tcd.ie/info_compliance/data-protection/student-data/

Relevant University Regulations

[Academic Policies](#)

[Student Complaints Procedure](#)

[Dignity & Respect Policy](#)

[Student Partnership Policy](#)

Appendix 1: Examination Regulations

1. General College Regulations

General College regulations with regard to examinations shall apply to all examinations in Science as set out in the University Calendar 2018-19 (available for download from each JS webpage – see URLs on p.1)

2. Examination Regulations – Junior Sophister

- 2.1. Examination timetables will be published on the portal my.tcd.ie at least four weeks prior to examinations taking place.

The College reserves the right to alter the published time and date of an examination in exceptional circumstances. Students should ensure that they are available for examinations for the duration of the relevant examination session as stated in the Almanack.

- 2.2. Junior Sophister students must, in the first instance, sit the end-of-semester examinations and meet the requirements of the course.
- 2.3 The Junior Sophister examination has a two-fold purpose. It is (a) the final examination for the Ordinary B.A. degree and (b) a qualifying examination to proceed to the Senior Sophister year as a Moderatorship candidate. A student who rises to, and completes, the Senior Sophister year, but fails the Moderatorship examination, is still qualified for the award of an Ordinary B.A. degree based on their successful performance in the Junior Sophister examination.

Students who pass the Junior Sophister examination can have the Ordinary B.A. degree conferred if they do not choose, or are not qualified, to proceed to Moderatorship. Except by special permission of the University Council, on the recommendation of the Course Director, the ordinary degree of B.A. may be conferred only on candidates who have spent at least three years in the course.

This following extract is taken from the general [regulations and information section](#) of the 2018/19 College Calendar:

67 In order to rise with their class, students must obtain credit for the academic year by satisfactory attendance at lectures and tutorials and by carrying out, submitting and sitting the required assessment components. In addition, students must pass the year by achieving, at a minimum, an overall credit-weighted average pass mark for the year (40 per cent or 50 per cent, as per programme regulations) and either:

(a) accumulate 60 credits by achieving at least the pass mark in all modules

or

(b) **Pass by Compensation.** All modules and components within modules are compensatable (except in particular professional programmes where compensation does not apply). To pass a year by compensation, in programmes that locate the pass mark at 40 per cent, a student must achieve the pass mark in modules carrying a minimum of 50 credits and obtain a module mark of at least 35 per cent in any remaining module(s). A student may accumulate a maximum of 10 credits at qualified pass where the mark lies between 35-39 per cent.

The end of year or degree result moderated by the court of examiners must be returned and recorded on the student record.

68 Progression is on an annual basis. Within a year students may carry failed modules from one semester to the next but not from one academic year to another; that is, they will not be able to rise to the next year of their programme until they have successfully completed the preceding year(s). Students who have not passed their year are required to present for reassessment when:

(a) they obtain in excess of 10 credits at qualified pass (i.e. marks between 35-39 per cent where the pass mark is 40 per cent);

(b) they fail any module (i.e. achieving marks below 35 per cent where the pass mark is 40 per cent; or below 45 per cent where the pass mark is 50 per cent);

(c) they do not obtain an overall pass mark for the year;

(d) any combination of (a) - (c) occurs.

69 If a student has achieved both fail and qualified pass grades at the first sitting or has exceeded the 10 credit limit allowed for compensation and is not permitted to rise with their year, they must present for reassessment in all failed components of all modules for which they obtained a fail and/or a qualified pass.

70 Different modalities of assessment to the first sitting are permitted in the reassessment session as determined by the programme.

71 The same compensation regulations as outlined above apply at the reassessment session.

72 Students who fail to satisfy the requirements of their year at the reassessment session are required to repeat the year in full (i.e. all modules and all assessment components).

73 Students are permitted to repeat any year of an undergraduate programme⁶ subject to not repeating the same year more than once and not repeating more than two academic years within a degree course, except by special permission of the University Council.

74 The maximum number of years to complete an undergraduate degree is six years for a standard four-year programme and seven years for a five-year programme.

75 Under certain conditions approved by the University Council, on the recommendation of the Senior Lecturer in consultation with the appropriate head(s) of school(s), director(s) of undergraduate teaching and learning, head(s) of department(s), Associate Dean for Undergraduate Science Education or course director, the University regards attendance at courses and the passing of approved examinations in other colleges as fulfilling or partially fulfilling the exercises required for certain degrees of the University. Where places are available students may be permitted advanced entry to their course, if they are deemed qualified by their knowledge and attainment to do so, or by passing specified examinations. Applicants must pay a fee before presenting themselves for examination (see COLLEGE CHARGES). Applications for advanced entry to any course should be made through the [Academic Registry](#) in the first instance.

76 Students must pursue their undergraduate course continuously unless they are permitted by the Senior Lecturer to interrupt it, normally for a period of one year, either by going 'off-books' or by intermitting their studies for extra-curricular reasons.

Absence from Examinations ([taken from Calendar general regulations and information](#))

44 Students who may be prevented from sitting an examination or examinations (or any part thereof) due to illness should seek, through their tutor, permission from the Senior Lecturer in advance of the examination session to defer the examination/s to the reassessment session. Students who have commenced the examination session, and are prevented from completing the session due to illness should seek, through their tutor, permission from the Senior Lecturer to defer the outstanding examination/s to the reassessment session.

45 Where such permission is sought, it must be appropriately evidenced:

(a) For illness: medical certificates must state that the student is unfit to sit examinations/complete assessment and specify the date(s) of the illness and the dates on which the student is not fit to sit examinations/complete assessment. Medical certificates must be submitted to the student's tutor within three days of the beginning of the period of absence from the assessment/examination.

(b) For other grave cause: appropriate evidence must be submitted to the student's tutor within three days of the beginning of the period of absence from the assessment/examination.

46 Where illness occurs during the writing of an examination paper, it should be reported immediately to the chief invigilator. The student will then be escorted to the College Health Centre. Every effort will be made to assist the student to complete the writing of the examination paper.

47 Where an examination/assessment has been completed, retrospective withdrawal will not be granted by the Senior Lecturer nor will medical certificates be accepted in explanation for poor performance.

Appendix 2: Description of the European Credit Transfer System (ECTS)

The European Credit Transfer and Accumulation System (ECTS) is an academic credit system based on the estimated student workload required to achieve the objectives of a module or programme of study. It is designed to enable academic recognition for periods of study, to facilitate student mobility and credit accumulation and transfer. The ECTS is the recommended credit system for higher education in Ireland and across the European Higher Education Area.

The ECTS weighting for a module is a **measure of the student input or workload** required for that module, based on factors such as the number of contact hours, the number and length of written or verbally presented assessment exercises, class preparation and private study time, laboratory classes, examinations, clinical attendance, professional training placements, and so on as appropriate. There is no intrinsic relationship between the credit volume of a module and its level of difficulty.

The European **norm for full-time study over one academic year is 60 credits**. A credit value of 1 ECTS represents 20-25 hours of estimated student input, so a 10-credit module will be designed to require 200-250 hours of student input including class contact time and assessments.

ECTS credits are awarded to a student only upon successful completion of the course year. Progression from one year to the next is determined by the course regulations. Students who fail a year of their course will not obtain credit for that year even if they have passed certain component courses. Exceptions to this rule are one-semester and one-year visiting students, who are awarded credit for individual modules successfully completed.

Appendix 3: College regulation regarding plagiarism

Simply put, plagiarism is the presentation of the work of someone as your own - the university takes plagiarism offences extremely seriously. Information on what constitutes plagiarism and how the university deals with it can be found in the central repository on plagiarism ([http://tcd-
ie.libguides.com/plagiarism](http://tcd.ie.libguides.com/plagiarism)) and in the Plagiarism Policy document_QPOLPlag, which will be made available on your course website.

All students must complete our [Ready Steady Write plagiarism tutorial](#) and sign a declaration when submitting course work, whether in hard or soft copy or via Blackboard, confirming that you understand what plagiarism is and have completed the tutorial.

Extract from the College Calendar 2018/19

96 General

It is clearly understood that all members of the academic community use and build on the work and ideas of others. It is commonly accepted also, however, that we build on the work and ideas of others in an open and explicit manner, and with due acknowledgement.

Plagiarism is the act of presenting the work or ideas of others as one's own, without due acknowledgement.

Plagiarism can arise from deliberate actions and also through careless thinking and/or methodology. The offence lies not in the attitude or intention of the perpetrator, but in the action and in its consequences.

It is the responsibility of the author of any work to ensure that he/she does not commit plagiarism.

Plagiarism is considered to be academically fraudulent, and an offence against academic integrity that is subject to the disciplinary procedures of the University.

97 Examples of Plagiarism

Plagiarism can arise from actions such as:

- (a) copying another student's work;
- (b) enlisting another person or persons to complete an assignment on the student's behalf;
- (c) procuring, whether with payment or otherwise, the work or ideas of another;
- (d) quoting directly, without acknowledgement, from books, articles or other sources, either in printed, recorded or electronic format, including websites and social media;
- (e) paraphrasing, without acknowledgement, the writings of other authors.

Examples (d) and (e) in particular can arise through careless thinking and/or methodology where students:

- (i) fail to distinguish between their own ideas and those of others;
- (ii) fail to take proper notes during preliminary research and therefore lose track of the sources from which the notes were drawn;
- (iii) fail to distinguish between information which needs no acknowledgement because it is firmly in the public domain, and information which might be widely known, but which nevertheless requires some sort of acknowledgement;
- (iv) come across a distinctive methodology or idea and fail to record its source. All the above serve only as examples and are not exhaustive.

98 Plagiarism in the context of group work

Students should normally submit work done in co-operation with other students only when it is done with the full knowledge and permission of the lecturer concerned. Without this, submitting work which is the product of collaboration with other students may be considered to be plagiarism.

When work is submitted as the result of a group project, it is the responsibility of all students in the group to ensure, so far as is possible, that no work submitted by the group is plagiarised. In order to avoid plagiarism in the context of collaboration and group work, it is particularly important to ensure that each student appropriately attributes work that is not their own.

99 Self plagiarism

No work can normally be submitted for more than one assessment for credit. Resubmitting the same work for more than one assessment for credit is normally considered self-plagiarism.

100 Avoiding plagiarism

Students should ensure the integrity of their work by seeking advice from their lecturers, tutor or supervisor on avoiding plagiarism. All schools and departments must include, in their handbooks or other literature given to students, guidelines on the appropriate methodology for the kind of work that students will be expected to undertake. In addition, a general set of guidelines for students on avoiding plagiarism is available on <http://tcd-ie.libguides.com/plagiarism>.

Appendix 4: Mark scheme and schedule of grades in Sophister years

Mark Range	Criteria
90-100	IDEAL ANSWER; showing insight and originality and wide knowledge. Logical, accurate and concise presentation. Evidence of reading and thought beyond course content. Contains particularly apt examples. Links materials from lectures, practicals and seminars where appropriate.
80-89	OUTSTANDING ANSWER; falls short of the 'ideal' answer either on aspects of presentation or on evidence of reading and thought beyond the course. Examples, layout and details are all sound.
70-79	MAINLY OUTSTANDING ANSWER; falls short on presentation and reading or thought beyond the course, but retains insight and originality typical of first class work.
65-69	VERY COMPREHENSIVE ANSWER; good understanding of concepts supported by broad knowledge of subject. Notable for synthesis of information rather than originality. Sometimes with evidence of outside reading. Mostly accurate and logical with appropriate examples. Occasionally a lapse in detail.
60-64	LESS COMPREHENSIVE ANSWER; mostly confined to good recall of coursework. Some synthesis of information or ideas. Accurate and logical within a limited scope. Some lapses in detail tolerated.
55-59	SOUND BUT INCOMPLETE ANSWER; based on coursework alone but suffers from a significant omission, error or misunderstanding. Usually lacks synthesis of information or ideas. Mainly logical and accurate within its limited scope and with lapses in detail.
50-54	INCOMPLETE ANSWER; suffers from significant omissions, errors and misunderstandings, but still with understanding of main concepts and showing sound knowledge. Several lapses in detail.
45-49	WEAK ANSWER; limited understanding and knowledge of subject. Serious omissions, errors and misunderstandings, so that answer is no more than adequate.
40-44	VERY WEAK ANSWER; a poor answer, lacking substance but giving some relevant information. Information given may not be in context or well explained, but will contain passages and words, which indicate a marginally adequate understanding.
35-39	MARGINAL FAIL; inadequate answer, with no substance or understanding, but with a vague knowledge relevant to the question.
30-34	CLEAR FAIL; some attempt made to write something relevant to the question. Errors serious but not absurd. Could also be a sound answer to the misinterpretation of a question.
0-29	UTTER FAIL; with little hint of knowledge. Errors serious and absurd. Could also be a trivial response to the misinterpretation of a question.

Schedule of Grades

I	=70%+
II-1	= 60-69%
II-2	= 50-59%
III	= 40-49%
F-1	= 30-39%
F-2	= 0-29%
U.G.	= Ungraded

Appendix 5: Medical and Self-Certification

During the Fresher years (Years 1 and 2) the Science Course Office coordinates the submission of medical certificates and self-certification. In the Sophister years certification is dealt with by the School Office in the Chemistry Building.

Medical Certificates:

A Medical Certificate from a GP is required for absences of more than 2 days. You should submit your med cert directly to the School of Chemistry office and complete a medical certificate form (available from the School Office or online at <https://chemistry.tcd.ie/assets/pdf/js/Absence%20Form%20-%20Med%20Cert%20Template.pdf>, stating the dates of your absence and the labs that you missed. **This must be done on the day of your return to College.**

Self-Certification:

For periods of up to one day (but no more than 3 days in any academic year), you may 'self-certify' an absence using the appropriate form (available from the School Office or online at [https://chemistry.tcd.ie/assets/pdf/js/Absence%20Form%20-%20Self%20Cert%20\(Illness,%20Sport,%20Other\)%20Template.pdf](https://chemistry.tcd.ie/assets/pdf/js/Absence%20Form%20-%20Self%20Cert%20(Illness,%20Sport,%20Other)%20Template.pdf)). **The School Office must be provided with the completed self-certification form, containing details of missed lab/lectures and reasons for it on the day of your return to College. Late submissions of 'self-certs' will not be used to mitigate against incomplete lab reports.**

If you miss an assigned laboratory practical class (either with a med cert or a self-certified absence), you should inform the supervisor of the laboratory practical of your absence at the next session and confirm that you have submitted the relevant certificate to the School Office. Adjustment of your mark and/or coursework resulting from absences will be treated on a case-by-case basis.

In the event of any conflict or inconsistency between the General Regulations published in the University Calendar and information contained in this handbook, the provisions of the General Regulations in the Calendar will prevail (Calendar, Part II, [General Regulations and Information](#), Section II, Item 12).

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