Overview

The Chemistry Honours stream introduces undergraduate students to the principles and practice of chemistry research. Students in Chemistry Honours undertake a supervised research project that places emphasis on scientific research methods, the use of relevant specialised techniques, critical thinking and scientific communication via written submissions and oral presentations.

The learning and teaching philosophy underpinning Chemistry Honours is centred on students taking on their 'role as a researcher' to develop these skills and the relevant advanced disciplinary knowledge, with some degree of independence.

In addition to the research project, Chemistry Honours includes formal coursework and requires attendance at School seminars, aimed at broadening a graduate's knowledge. Most students would complete Honours as full-time students, where the program is completed over two consecutive semesters. Part-time study is also possible depending on availability of supervision and suitable projects.

Student research projects are available across the full range of Chemistry disciplines, with a focus on our School's major research themes of Catalysis and Energy, Nanoscience, and Medicinal Chemistry. Further information on the Honours program and the School's research can be found on the Chemistry Honours page and the Chemistry Research Themes page.

Most students commence their enrolment in a trimester (commonly T1 and T3). Students are expected to commence work on their project in Week 1 of their first trimester. Honours typically runs until mid-November (T1 commencement) or end of their final trimester. Students should check the Chemistry Honours webpages for current enrolment deadlines, and assessment and completion dates.
The Chemistry Honours stream involves undertaking a research project that, although conducted under supervision, contains substantial independent research and self-direction. The research project is described in a submitted Project Thesis that forms the largest component of the assessment. The Project Thesis is complemented by introductory written and oral background presentations, oral presentation of the research project, and an oral examination (viva voce). Students are also required to attend compulsory Workplace Health and Safety training, relevant inductions, as well as School seminars.

The Chemistry Honours stream also contains an advanced coursework component. Students elect to study a series of advanced topics covering a broad range of chemistry.
Faculty
Faculty of Science

School
School of Chemistry

Study Level
Undergraduate

Minimum Units of Credit
48

Specialisation Type
Honours
Available in Program(s)

Program(s) in which this honours is available

Bachelor of Advanced Science (Honours) - BAdvSci(Hons)
3962 Advanced Science (Honours)
Faculty: Faculty of Science
Campus: Kensington
Units of Credit: 192
Typical Duration: 4 Years

Bachelor of Science (Honours) - BSc(Hons)
4500 Science (Honours)
Faculty: Faculty of Science
Campus: Kensington
Units of Credit: 48
Typical Duration: 1 Years
Specialisation Structure

Students must complete 48 UOC.

Core Courses

Students must take 12 UOC of the following courses in their first term of enrolment.

CHEM4501  |  6 UOC
Chemistry Project Proposal and Research Skills

CHEM4502  |  6 UOC
Chemistry Honours Coursework

Research Project

Students must take 36 UOC of the following courses.
Students should enrol in CHEM4506 in their first term of enrolment, CHEM4518 in the middle term and CHEM4512 in their final term.

CHEM4506  |  6 UOC
Chemistry Honours Project

CHEM4512  |  12 UOC
Chemistry Honours Project

CHEM4518  |  18 UOC
Chemistry Honours Project 18 UOC

Enrolment Disclaimer

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.
Additional Information

Assessment

Coursework 6 UOC

The 6 UOC coursework component CHEM4502 enables students to elect to study advanced topics across a range of areas of Chemistry. Topics are offered in both semesters to accommodate students commencing Honours in semester 1 or semester 2.

Research (42 UOC)

The research component of an Honours year has several distinct features:

CHEM4501 Chemistry Project Proposal and Research Skills (6 UOC)

Students must complete a written research proposal providing a detailed account of published scientific investigations relevant to the project, and a proposal of the research work to be undertaken. Students must also give a short seminar based on the review and proposal, highlighting any strengths and limitations of relevant literature. The proposal is graded by a panel of up to 4 academics and the seminar is graded by the academics in the audience for their presentation (minimum of 4).

This component of the Honours year is complemented by essential workplace health and safety and other relevant inductions, and compulsory instruction on topics including preparation of research proposals, and ethics.

Assessable components:
Project proposal: 60% (7.5% of final Honours mark)
Introductory Seminar: 25% (3.125% of final Honours mark)
Health & Safety / Ethics Quiz: 15% (1.875% of final Honours mark)
Research Project Thesis (36 UOC)

A Research Project is the major undertaking of a student’s Honours year, and students enrol in a combination of courses (CHEM4506, CHEM4512, CHEM4518 as described above for full-time and part-time enrolment, to a total of 36 UOC). At the conclusion of the project a student will submit a written manuscript or thesis (maximum 50 pages) summarising the research and results obtained during their
Honours year. The Project Thesis will be marked by a panel of up to four assigned
examiners. A critical part of the evaluation of the Thesis will include assessment of a
student's research performance throughout the year including motivation,
organisational skills, research (laboratory) skills, note-keeping, critical analysis and
communication skills.

Students are also required to deliver a formal 20 minute presentation covering the
results of the research, and to defend their research in an oral examination.

Attendance at School seminars is also a compulsory part of the Honours program.

The breakdown of assessment for the Research Project Thesis mark is as follows:
Thesis mark 60% (45% of final Honours mark)
Final seminar 15% (11.25% of final Honours mark)
Oral examination 25% (18.75% of final Honours mark)

Honours Grade Calculation

A student’s Honours mark is the Weighted Average Mark (WAM) of the marks
obtained in CHEM4501 Chemistry Project Proposal and Research Skills (6 UOC),
CHEM4502 Chemistry Honours Coursework (6 UOC), plus the Research Project (36
UOC).

The overall contributions of the various components to the final Honours grade are
as follows:
Honours Coursework (12.5%)
Project Proposal and Research Skills (12.5%)
Research Project Thesis (75%)

A guide to allocation of Honours classes and what is expected of students within the
School of Chemistry is as follows:

Final Mark >85 (Honours Class 1)

Work of superior quality in all aspects of research, scientific writing, and oral
presentation, demonstrating the ability to organise information in a clear and concise
manner, the integration of information from a wide range of sources and containing
clear examples of excellent critical evaluation.

Final Mark 75-84 (Honours Class 2.1)

Work of very good quality in all aspects of research, scientific writing, and oral
presentation, but showing lesser ability to organise information in a clear and
concise manner, integrate information from range of sources and critically evaluate
the literature and research data.

Final Mark 65-74 (Honours Class 2.2)

Good quality in all aspects of research, scientific writing, and oral presentation but with inadequacies in understanding, critical skills, organisation and presentation.

Final Mark 50-64 (Honours Class 3)

Adequate quality work with significant deficiencies in understanding, critical skills, organisation and presentation.

Admission Requirements and Process

Admission Requirements

The Chemistry Honours stream in Program 4500 Science (Honours) is available to all students who have met the entry requirements outlined below and is typically offered to 3970 Science, 3987 Science International and 3925 Science and Business students at UNSW who have completed a Chemistry major including students enrolled in dual program combinations with these Science programs (see the UNSW Online Handbook for details). Exceptions to these requirements will only be permitted with the consent of the Head of School or nominee (Honours Coordinator). External students should provide evidence of equivalent study and will require approval of the Head of School or nominee (Honours Coordinator).

Other requirements for entry to Honours in Chemistry are as shown below:
A credit average (=65% WAM) for all undergraduate Science courses.
A credit average for all Level II and III courses in the Chemistry major.
An applicant with an overall WAM of between 60 to 64 will require the permission of the Head of School to enrol in Honours in Chemistry.

Admission Process

Students who meet the entry requirements should make contact with potential supervisors aligning with their interests and discuss undertaking Honours with them. Potential students should then apply for acceptance into the stream and, following receipt of an offer of acceptance, proceed with enrolment. Application and Enrolment procedures are described on the Chemistry Honours page. Students accepted into the program will receive an offer of acceptance letter from the Honours Coordinator, and can then proceed with full enrolment.

Supervisors and potential projects can also be found on the Chemistry Honours page. Students may also identify potential supervisors and projects via the
Students who successfully complete Chemistry Honours are qualified to continue further in their research careers by undertaking postgraduate studies by research (Masters or PhD level). Students with successful Honours are qualified to enrol in a PhD program at UNSW. Students achieving a high Honours Grade (Class 1 or 2.1) may apply for an Australian Postgraduate Award (APA) PhD scholarship to support such studies. Further information can be obtained from the postgraduate studies page.

Graduates of Chemistry Honours are well qualified to work in any Chemistry or associated research laboratory as a Research Assistant or Research Technician. Graduates may also find employment in the public or private sectors either using their chemistry skills directly, or alternatively in a range of other fields using the analytical and research skills developed during the Honours year. For more information see the School of Chemistry’s Careers page.

Potential careers are very broad as the generic skills acquired during an Honours year are widely applicable and highly sought.
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)