

MC-SCICHE Master of Science (Chemistry)

Year and Campus:	2010 - Parkville
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Graduate/Postgraduate
Duration & Credit Points:	200 credit points taken over 24 months full time. This course is available as full or part time.
Coordinator:	Dr Craig Hutton Email: chutton@unimelb.edu.au
Contact:	Melbourne Graduate School of Science Faculty of Science The University of Melbourne Tel: + 61 3 8344 6404 Fax: +61 3 8344 5803 Web: http://graduate.science.unimelb.edu.au (http://graduate.science.unimelb.edu.au/)
Course Overview:	The Master of Science - Chemistry is one of the research training streams of the Master of Science. The research training streams give students the opportunity to undertake a substantive research project in a field of choice as well as a broad range of coursework subjects including a professional tools component, as a pathway to PhD study or to the workforce.
Objectives:	The objectives of this course are to: <ul style="list-style-type: none"> # develop the process and practice of chemical research; # increase the student's knowledge and understanding of chemical science; # encourage the development of individual investigative skills, critical thought and the ability to evaluate information and to analyse experimental data.
Course Structure & Available Subjects:	<p>Students undertaking the Master of Science (Chemistry program) must complete a total of 200 points over the two year full-time (or four year part-time) program, comprising:</p> <p>Core discipline subject (12.5 points) <i>Students must take:</i></p> <ul style="list-style-type: none"> • 610-681 Advanced Spectroscopy <p>Elective discipline subjects (all subjects are 12.5 points, total points: 37.5–50) <i>Students must take:</i></p> <ul style="list-style-type: none"> • Two to four of the core Chemistry subjects: 610-682 Chemistry 4A; 610-683 Chemistry 4B; 610-501 Chemistry 5A; 610-502 Chemistry 5B and • Up to 25 points from the Professional Entry MSc core discipline subjects (with the approval of the course coordinator), and/or up to 12.5 points of approved 300-level subjects. <p><i>Note: Students need not complete Chemistry 4A or 5A prior to enrolling in Chemistry 4B and 5B.</i></p> <p>Professional tools (all subjects are 12.5 points, total points: 12.5–25) <i>Students must take one or two Professional Tools subjects from the following list:</i></p> <p>Business Tools</p> <ul style="list-style-type: none"> • 600-614 Business Tools: Money, People and Processes, • 600-622 Business Tools: The Market Environment, <p>Science Tools</p> <ul style="list-style-type: none"> • 615-668 Critical Analysis in Science; • 615-505 e-Science; • 600-617 Systems Modelling and Simulation; • 600-618 Ethics and Responsibility in Science; • 600-615 Thinking and Reasoning with Data. <p>Communication Tools</p> <ul style="list-style-type: none"> • 600-616 Science in Context; • 600-619 Scientists, Communication and the Workplace

Research Project (125 credit points)

The assessment requirements below are applicable to the entire 125 point Research Project:

(1) A preliminary literature survey and research plan (1500 words, up to 5 pages), due at the end of the first semester of study (pass/fail);

(2) A major thesis, page limit of 60 pages (20,000 words) due at the end of the fourth semester of study (90% made up from thesis evaluation (35%), oral examination (viva) on thesis (35%); supervisor's assessment of research performance ((20% based on attendance, application, initiative, and demonstrated skills]);

(3) A project related oral-presentation (up to 30 minutes) given at the end of the fourth semester of study (10%);

(4) Successful completion of a seminar series providing advanced theoretical and/or practical training (pass/fail).

Students enrolled in the Master of Science (Chemistry program) are required to complete a 125 point Research Project. Students may enrol in a combination of Research Project subjects as indicated below (each of which is available in the summer semester, semester one and semester two) over their two years of full-time study or over their four years of part-time study, to ensure they have completed a total of 125 points by the end of their course.

610-671 Research Project - 12.5 points

610-672 Research Project - 25.0 points

610-673 Research Project - 37.5 points

610-675 Research Project - 50.0 points

Subject Options:**Discipline Core**

Subject	Study Period Commencement:	Credit Points:
CHEM90008 Advanced Spectroscopy	Semester 1	12.50

Discipline Elective

Subject	Study Period Commencement:	Credit Points:
CHEM90009 Chemistry 4A	Semester 1	12.50
CHEM90010 Chemistry 4B	July	12.50
CHEM90017 Chemistry 5A	Semester 1	12.50
CHEM90018 Chemistry 5B	July	12.50

Professional Tools

Subject	Study Period Commencement:	Credit Points:
BUSA90403 Business Tools: Money People & Processes	Semester 2	12.50
BUSA90471 Business Tools: The Market Environment	Semester 1	12.50
615-668 Critical Analysis in Science	Not offered 2010	12.50
SCIE90007 E-Science	Semester 2	12.50
MAST90045 Systems Modelling and Simulation	Semester 1	12.50
SCIE90005 Ethics and Responsibility in Science	Semester 2	12.50
MAST90044 Thinking and Reasoning with Data	Semester 1	12.50
SCIE90004 Science in Context	Semester 2	12.50
SCIE90006 Scientists, Communication & the Workplace	April	12.50

Research Project

	Subject	Study Period Commencement:	Credit Points:
	CHEM90013 Chemistry Masters Research Project	Summer Term, Semester 1, Semester 2	12.50
	CHEM90014 Chemistry Masters Research Project	Summer Term, Semester 1, Semester 2	25
	CHEM90015 Chemistry Masters Research Project	Summer Term, Semester 1, Semester 2	37.50
	610-675 Chemistry Masters Research Project	Not offered 2010	50.00
Entry Requirements:	Bachelor degree with a major in chemistry or a related discipline with at least an H3 (65%) average in the major or equivalent.		
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.		
Further Study:	The Research Training programs offer a pathway to a PhD.		
Graduate Attributes:	Graduates will: have the ability to demonstrate advanced independent critical enquiry, analysis and reflection; have a strong sense of intellectual integrity and the ethics of scholarship; have in-depth knowledge of their specialist discipline(s); reach a high level of achievement in writing, research or project activities, problem-solving and communication; be critical and creative thinkers, with an aptitude for continued self-directed learning; be able to examine critically, synthesise and evaluate knowledge across a broad range of disciplines; have a set of flexible and transferable skills for different types of employment; be able to initiate and implement constructive change in their communities, including professions and workplaces.		
Links to further information:	http://graduate.science.unimelb.edu.au/programs/msc/chemistry		