

GD-SCI Graduate Diploma in Science

Year and Campus:	2015 - Parkville							
CRICOS Code:	085108G							
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees							
Level:	Graduate/Postgraduate							
Duration & Credit Points:	100 credit points taken over 12 months full time. This course is available as full or part time.							
Coordinator:	Professor Aleks Owczarek Director Melbourne Graduate School of Science							
Contact:	<p>Melbourne Graduate School of Science Faculty of Science The University of Melbourne Victoria 3010</p> <p>Tel: + 61 3 8344 6128 Fax: +61 3 8344 3351</p> <p>Web: http://graduate.science.unimelb.edu.au/ (http://graduate.science.unimelb.edu.au/)</p>							
Course Overview:	<p>This course is no longer taking new enrolments. Please see GD-SC (.../view/current/GD-SC) .</p> <p>The Graduate Diploma allows students who have completed an undergraduate degree to refocus or expand their body of knowledge by completing the requirement of one of the undergraduate majors (or equivalent) in the Bachelor of Science not already completed. The Graduate Diploma provides a pathway to the Master of Science Streams.</p>							
Learning Outcomes:	<p>Students who complete the Graduate Diploma should:</p> <ul style="list-style-type: none"> # Demonstrate an independent approach to knowledge that uses rigorous methods of inquiry and appropriate theories and methodologies that are applied with intellectual honesty and a respect for ethical values; # Apply critical and analytical skills and methods to the identification and resolution of problems; # Act as informed and critically discriminating participants within the community of scholars, as citizens and in the work force; # Communicate effectively; # Commit to continuous learning; # Be proficient in the use of appropriate modern technologies, such as the computer and other information. 							
Course Structure & Available Subjects:	<p>Completion of 100 points:</p> <ul style="list-style-type: none"> # 50 points of study at Level 3 # 50 points of study at Level 2 or above. 							
Majors/Minors/Specialisations	<table border="1"> <thead> <tr> <th>Major/Minor/Specialisation</th> </tr> </thead> <tbody> <tr> <td>Botany</td> </tr> <tr> <td>Chemistry</td> </tr> <tr> <td>Medicinal Chemistry</td> </tr> <tr> <td>Computer Science</td> </tr> <tr> <td>Genetics</td> </tr> <tr> <td>Integrated Geography</td> </tr> </tbody> </table>	Major/Minor/Specialisation	Botany	Chemistry	Medicinal Chemistry	Computer Science	Genetics	Integrated Geography
Major/Minor/Specialisation								
Botany								
Chemistry								
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Genetics								
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Human Geography
Physical Geography
Geology
Pure Mathematics
Applied Mathematics
Statistics / Stochastic Processes
Discrete Mathematics / Operations Research
Physics
Zoology

Entry Requirements:**In order to be considered for entry, applicants must have completed:**

- an undergraduate degree, or equivalent; and
- at least 25 points of specific prerequisite subjects at level 1 or above for the stream into which entry is sought.

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Meeting these requirements does not guarantee selection.

In ranking applications, the Selection Committee will consider prior academic performance.

The Selection Committee may seek further information to clarify any aspect of an application in accordance with the **Admission and Selection into Course Policy (<http://policy.unimelb.edu.au/MPF1035>)** .

Applicants are required to satisfy the university's **English language requirements for postgraduate courses (<http://www.policy.unimelb.edu.au/schedules/MPF1035-ScheduleA.pdf>)** . For those applicants seeking to meet these requirements by one of the standard tests approved by the Academic Board, performance band 6.5 is required.

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Stream Specific Subject Prerequisites*Applied Mathematics*

Both of MAST10006 Calculus 2 and MAST10007 Linear Algebra, or both of MAST10008 Accelerated Mathematics 1 and MAST10009 Accelerated Mathematics 2, or equivalents

Botany

25 points of level 1 or above biological sciences subjects

Chemistry

CHEM10004 Chemistry 2 or CHEM10006 for Biomedicine, or equivalents and a further 12.5 points of level 1 science

Computer Science

At least 25 points of level 1 or above Computer Science subjects, or equivalent and 25 points of level 1 or above mathematics or statistics subjects, or equivalent

Discrete Mathematics / Operations Research

Both of MAST10006 Calculus 2 and MAST10007 Linear Algebra, or both of MAST10008 Accelerated Mathematics 1 and MAST10009 Accelerated Mathematics 2, or equivalents

Genetics

At least 25 points of level 1 or above biological sciences subject

Geology

ERTH10002 Understanding Planet Earth , or equivalent plus one other level 1 or above subject in Geology or Chemistry

Human Geography

	<p>GEOG10001 Famine in the Modern World , or equivalents plus 12.5 points of level 1 or above science subjects</p> <p><i>Integrated Geography</i></p> <p>Two of ENV510001 Natural Environments, GEOG10001 Famine in the Modern World, EARTH10001 The Global Environment or UNIB10003 An Ecological History of Humanity, or equivalents</p> <p><i>Medicinal Chemistry</i></p> <p>CHEM10004 Chemistry 2 or CHEM10006 for Biomedicine, or equivalents and a further 12.5 points of level 1 biological science subjects.</p> <p><i>Physical Geography</i></p> <p>Two of ENV510001 Natural Environments, GEOG10001 Famine in the Modern World, EARTH10001 The Global Environment or UNIB10003 An Ecological History of Humanity, or equivalents</p> <p><i>Physics</i></p> <p>25 points of level 1 Physics and 25 points of level 1 Mathematics, or equivalent, plus two of PHYC20005 Quantum Mechanics & Thermal Physics and PHYC20009 Thermal and Classical Physics and PHYC20010 Quantum Mechanics and Special Relativity and PHYC20011 Electromagnetism and Optics, MAST20009 Vector Calculus and MAST20026 Real Analysis, or equivalents</p> <p><i>Pure Mathematics</i></p> <p>Both of MAST10006 Calculus 2 and MAST10007 Linear Algebra, or both of MAST10008 Accelerated Mathematics 1 and MAST10009 Accelerated Mathematics 2, or equivalents</p> <p><i>Statistics / Stochastic Processes</i></p> <p>Both of MAST10006 Calculus 2 and MAST10007 Linear Algebra, or both of MAST10008 Accelerated Mathematics 1 and MAST10009 Accelerated Mathematics 2, or equivalents</p> <p><i>Zoology</i></p> <p>25 points of level 1 or above Life Sciences</p>
<p>Core Participation Requirements:</p>	<p>The Graduate Diploma in Science welcomes applications from students with disabilities. It is University and degree policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the degree. The Graduate Diploma in Science requires all students to enrol in subjects where they will require: the ability to comprehend complex science, technology and/or engineering systems related information; the ability to clearly and independently communicate a knowledge and application of science, technology and engineering systems principles and practices during assessment tasks; and in some areas of study the ability to actively and safely contribute in clinical, laboratory, and fieldwork/excursion activities. Students must possess behavioural and social attributes that enable them to participate in a complex learning environment. Students are required to take responsibility for their own participation and learning. They also contribute to the learning of other students in collaborative learning environments, demonstrating interpersonal skills and an understanding of the needs of other students. Assessment may include the outcomes of tasks completed in collaboration with other students. There are additional inherent academic requirements for some major studies and subjects, and these requirements are listed within the description of the requirements for each of these majors and subjects. Students who feel their disability will impact on meeting this requirement are encouraged to discuss this matter with the relevant Subject Coordinator and the Disability Liaison Unit: http://www.services.unimelb.edu.au/disability/ - Discipline-specific Core Participation Requirements</p> <p>Chemistry Core Participation requirements: Laboratory experiments This discipline requires students to actively, independently and safely participate in all practical classes, utilising a range of observational, communication, motor, intellectual, and behavioural and social skills. Visual acuity, muscle coordination and balance are essential for participation. Assessment is reliant on careful observation and visual interpretation of results.</p> <p>Botany Core Participation requirements: Fieldwork, practicals and laboratory experiments This discipline requires all students to actively, independently and safely participate in all practical classes, utilising a range of observational, communication, motor, intellectual, and behavioural and social skills. Visual acuity, muscle coordination and balance are essential for participation. Details of the participation requirements can be found at http://www.vet.unimelb.edu.au/docs/CoreParticipationReqsBSc.pdf The sites essential to this fieldwork are not wheel chair accessible and may require students to traverse broken ground. Students are also required to undertake experiments including specimen and microscope work with assessment reliant on</p>

	<p>careful observation and visual interpretation of results. Practicals may also involve handling and working with animals. Geology Core Participation requirements: FieldworkThe sites essential to this fieldwork are not wheelchair accessible and require students to traverse broken ground. Visual observation and interpretation of the sites is also an essential component, as is specimen and microscope work. ZoologyCore Participation requirements: Fieldwork, practicals and laboratory experimentsThis major requires all students to actively, independently and safely participate in all practical classes, utilising a range of observational, communication, motor, intellectual, and behavioural and social skills. Visual acuity, muscle coordination and balance are essential for participation. Details of the participation requirements can be found at http://www.vet.unimelb.edu.au/docs/CoreParticipationReqsBSc.pdf The sites essential to this fieldwork are not wheel chair accessible and may require students to traverse broken ground. Students are also required to undertake experiments including specimen and microscope work with assessment reliant on careful observation and visual interpretation of results. Practicals may also involve handling and working with animals.</p>
Further Study:	The Graduate Diploma provides a pathway to the Master of Science Streams
Links to further information:	http://graduate.science.unimelb.edu.au/certificates-diplomas
Notes:	<p>The following streams can only be completed part-time</p> <ul style="list-style-type: none"> Applied Mathematics Botany Chemistry Computer Science Discrete Mathematics/Operations Research Genetics Geology Physics Pure Mathematics Statistics/Stochastic Processes Medicinal Chemistry Human Geography Zoology (Start Year Intake) <p>The following streams can be completed either full-time or part-time</p> <ul style="list-style-type: none"> Integrated Geography Physical Geography Zoology (Mid-year Intake)