Master of Science (MSCN) - MSc

CRICOS code (International applicants): 078596M

	On-campus*†#	**Distance education†#**
Semester intake:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July)
Campus:	Toowoomba	-
Fees:	Commonwealth supported place Domestic full fee paying place International full fee paying place	Commonwealth supported place Domestic full fee paying place International full fee paying place
Standard duration:	2 years full-time, 6 years part-time	

Footnotes

* The Environment and Sustainability and Astronomy majors are available to distance education students only. Therefore, these majors are not suitable for international students who wish to study on-campus.

† There is no Semester 2 intake for the Mathematics/Statistics major. The first intake for the Mathematics and Statistics major will be Semester 1 2014.

Availability of Commonwealth supported places is subject to a quota. Once the CSP quota has been filled, students will be admitted to the Master of Science program as full tuition fee paying students.

** The first intake for the Environment and Sustainability major will be Semester 2 2013.

Contact us

Future Australian and New Zealand students	**Future International students**	**Current students**
Ask a question Freecall (within Australia): 1800 269 500 Phone (from outside Australia): +61 7 4631 5315 Email: studysci@usq.edu.au	Ask a question Phone: +61 7 4631 5543 Email: international@usq.edu.au	Ask a question Freecall (within Australia): 1800 007 252 Phone (from outside Australia): +61 7 4631 2285 Email: usq.support@usq.edu.at

Program focus

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This sixteen unit major provides an opportunity to gain professional knowledge and skills in the science of astronomy. The program is designed to cater for a wide range of students. Graduates will be equipped with a broad understanding of the concepts, observations and numerical problem solving used in astronomy and science more generally, and gain an appreciation of the relevant scientific literature and research methods.

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This sixteen unit program provides graduates with knowledge of selected basic concepts and skills associated with the broad area of environmental science, climate and sustainability. The program aims to produce graduates with knowledge and skills for the integration of social, environmental and economic research within an interdisciplinary planning and policy framework and to provide capacity for the sustainable management of natural resources, businesses and communities.

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This sixteen unit Mathematics and Statistics major is designed to provide an opportunity for graduates from any discipline, other than Mathematics and Statistics, to gain skills and knowledge in key areas of mathematics and/or statistics which relate to their needs and meet the academic requirements of their profession or industry. This program is particularly suitable for school teachers who wish to update their mathematics/statistics skills.

- understand global environmental systems and assess the risks of climatic changes and climate variability and their influence on sustainable practices
- critically analyse multi-disciplinary information and data to provide informed decision-making in relation to resource management and climate adaptation
- evaluate opportunities that may arise from environmental and climate changes
- express and communicate scientific knowledge and concepts across a range of professions
- critically assess emerging approaches to policy development and institutional arrangements to support sustainability
- identify and establish strong links between science, effective community engagement and sound policy
- demonstrate, through the breadth of their studies, an advanced understanding of issues, concepts and applications of sustainability in environment and natural resource management

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At the completion of the program, graduates will:

- be able to demonstrate at least a sound knowledge of some important theories and t2completion ofuate and

have knowledge of mathematics at least equivalent to that found in MAT1102 Algebra and Calculus I and have appropriate communication skills equivalent to those covered in CMS1000 Communication and Scholarship.

Students who are enrolled or hold a Graduate Diploma of Mathematics/Statistics or Science or a Graduate Certificate of Science in the Mathematics/Statistics area from a recognised university may apply for credit.

Particular choices of courses within this program may require additional pre-requisite or assumed knowledge. For example, some courses have a pre-requisite of basic computer programming skills equivalent to CSC1401 Foundation Programming course and others may require introductory knowledge of optimisation skills, such as those addressed in MAT1200 Operations Research 1 course, basic knowledge of Algebra and Calculus I at the level of MAT1102 or ENM2600 course, and statistics skills equivalent to STA2300 Data

The Master of Science (Mathematics/Statistics) major consists of 16 units of courses, selected from those courses listed below in the Recommended Enrolment Pattern section, subject to the following conditions:

- at least eight units of courses must be at Level 8
- at most three elective courses of study, which are not listed in the Recommended Enrolment Pattern section, may be taken from a related area of interest to the student with prior approval of the Program Coordinator. For example, a student working in bioinformatics might also want to study areas of computing

Students exiting the Master of Science(Math/Stat) major after passing at least four courses may be awarded, upon application, the Graduate Certificate in Science provided that at least three of the courses passed are listed in the Recommended Enrolment Pattern section and approved by the Program Coordinator.

Students exiting the Master of Science (Math/Stat) major after passing at least eight courses may be awarded, upon application, the Graduate Diploma of Mathematics, provided that at least seven of the courses passed are listed in the Recommended Enrolment Pattern section; and the other is from a related area and has been studied with the prior approval of the Program Coordinator as contributing to the Masters program.

Students wishing to exit as above must discuss the procedures with the Program Coordinator.

Exemptions

Astronomy major: Students who have a bachelor's degree in physical sciences may apply for up to 4 units of credit.

Environment and Sustainability major: exemptions may be granted for a maximum of eight units on the basis of successful completion of relevant and equivalent graduate study from a recognised institution. Students with a Level 8 (Graduate Diploma or Honours Degree) qualification in the environmental sciences or related discipline may qualify for up to eight units of exemption; students with a Level 7 (Bachelor degree) qualification in the environmental sciences or related discipline or a Level 8 qualification in a different discipline may qualify for up to four units of exemption.

Maths/Stats major: Exemptions from courses in the Math/Stat major may be granted for a maximum of six units on the basis of successful completion of relevant and equivalent graduate study from a recognised institution. Students who hold a Graduate Diploma in Mathematics/Statistics may be granted up to a maximum of four units.

Elective courses

For the Mathematics and Statistics major a maximum of 3 elective courses at Level 3 or above can be taken from other discipline areas with the prior approval of the Program Coordinator.
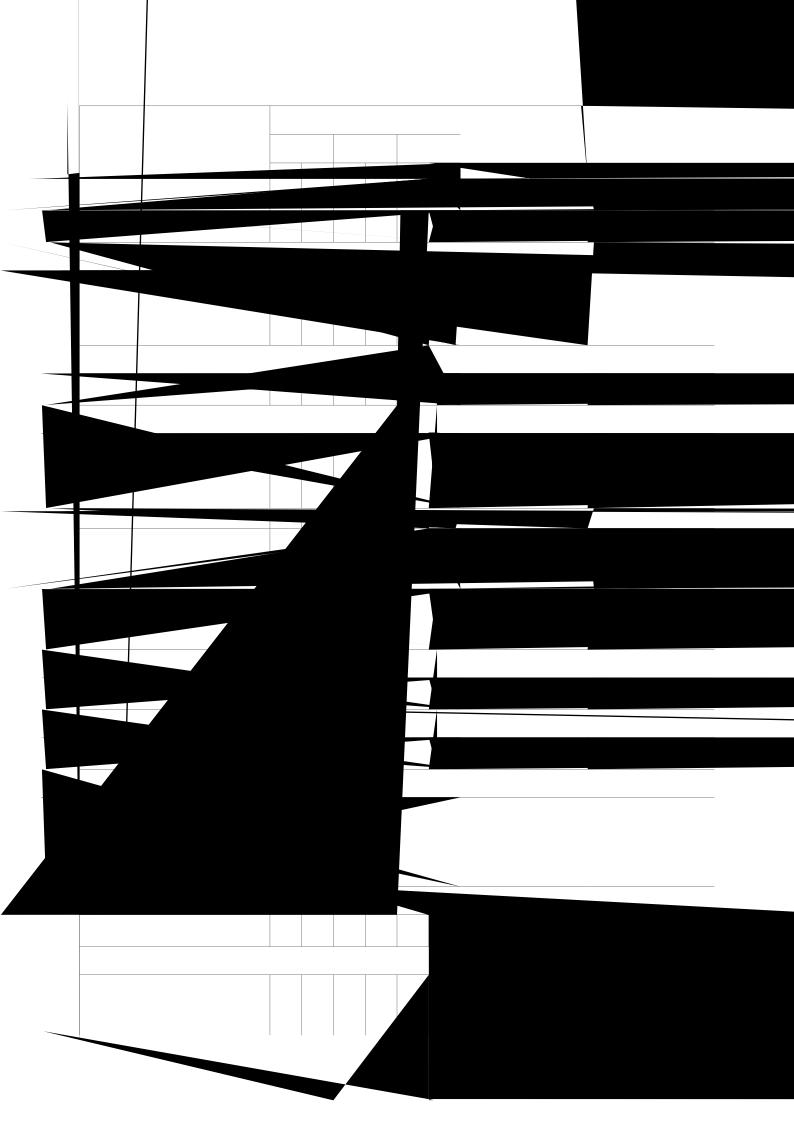
Enrolment

Recommended Enrolment Pattern - Astronomy Major Full-time (4 Semesters, S1 or S2 commencement)

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Recommended Enrolment Pattern - Astronomy Major Part-time (8 Semesters, S1 or S2 commencement)

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EDU8421 (Semester 3, Offer)

EDU8701 Teaching and Learning in Contemporary Contexts: Theory and Practice (Semester 3, Online Offer)

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