Graduate Diploma of Science (GDSI) - GradDipSci

CRICOS code (International applicants): 031448M

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On completion of this specialisation graduates will be able to:

- demonstrate advanced theoretical and technical knowledge of data science to a complex body of knowledge in sciences
- analyse, generate and transmit solutions to complex problems in sciences
- analyse critically and reflect on ethics and professionalism for data science.

Environment and Sustainability specialisation
On completion of this specialisation graduates will be able to:

- understand and apply the principles and approaches of sustainability
- demonstrate an understanding of the functioning of the global climate system and global climate changes
- understand and assess the risks of climatic changes and climate variability and their influence on sustainable practices
- evaluate opportunities that may arise from environmental and climate changes
- identify and establish strong links between science, effective community engagement and sound policy to support sustainability
- demonstrate, through the breadth of their studies, an advanced understanding of issues, concepts and applications of sustainability in environment and natural resource management

Physics and Astronomy specialisation
On completion of this specialisation graduates will be able to:

- demonstrate a general professional understanding of the science of astronomy
- conduct scholarly enquiries into the research literature in astronomy and astroychhnm(u to: 1 72.2 510.819 Tmronom

Australian Qualifications Framework

The Australian Qualifications Framework (AQF) is a single national, comprehensive system of qualifications offered by higher education institutions (including universities), vocational education and training institutions and secondary schools. Each AQF qualification has a set of descriptors which define the type and complexity of knowledge, skills and application of knowledge and skills that a graduate who has been awarded that qualification has attained, and the typical volume of learning associated with that qualification type.

This program is at AQF Qualification Level 08. Graduates at this level will have advanced knowledge and skills for professional or highly skilled work and/or further learning.

The full set of levels criteria and qualification type descriptors can be found by visiting www.aqf.edu.au.

Admission requirements

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Agricultural Science specialisation

The program consists of 4 core courses, all available in external mode, and 4 approved courses that can be taken as a themed ‘minor’ or as independent approved courses.

CSC1401 Foundation Programming	MAT2100 Algebra and Calculus II[^±]	MAT3104 Mathematical Modelling in Financial Economics[^*±]	MAC8901 Issues in Teaching Mathematics[±]
ENM1600 Engineering Mathematics	STA2300 Data Analysis	SCI3302 Industry Placement[$]	MAT8190 Mathematics/Statistics Complementary Studies B[±$]
MAT1100 Foundation Mathematics	STA2302 Statistical Inference[^$]	STA3301 Statistical Models[$]	STA8190 Advanced Statistics B[^$]

Footnotes

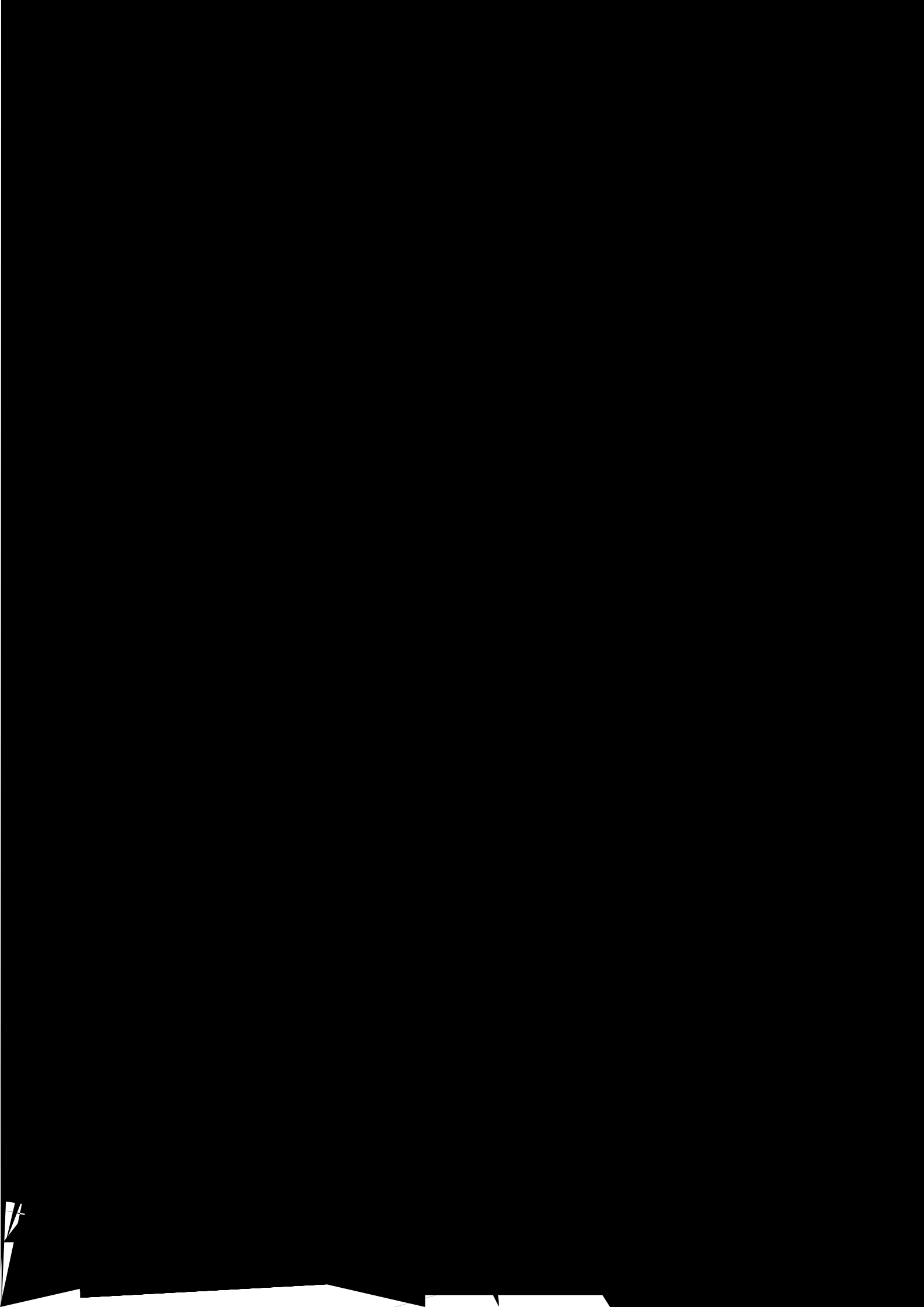
^ Students may vary their enrolment on the basis of prior studies or professional requirements with the approval of the Faculty of Health, Engineering and Sciences.
± Recommended courses for students wanting to teach mathematics
The on-campus offering of this course is offered in even years only.
$ Recommended courses for students wanting to specialise in Statistics only
* The on-campus offering of this course is offered in odd years only.

Sport and Exercise specialisation

The program consists of four compulsory courses and three courses from the list of approved courses below.

Compulsory Courses	Approved Courses (choose three)
SES8005 Advanced Exercise Physiology	SES8008 Advanced Anatomy and Physiology[**]
SES8006 Advanced Exercise Programming and Rehabilitation	SES8001 Advanced Biomechanics
	SES8003 Advanced Moon

Sport and Exercise specialisation: F



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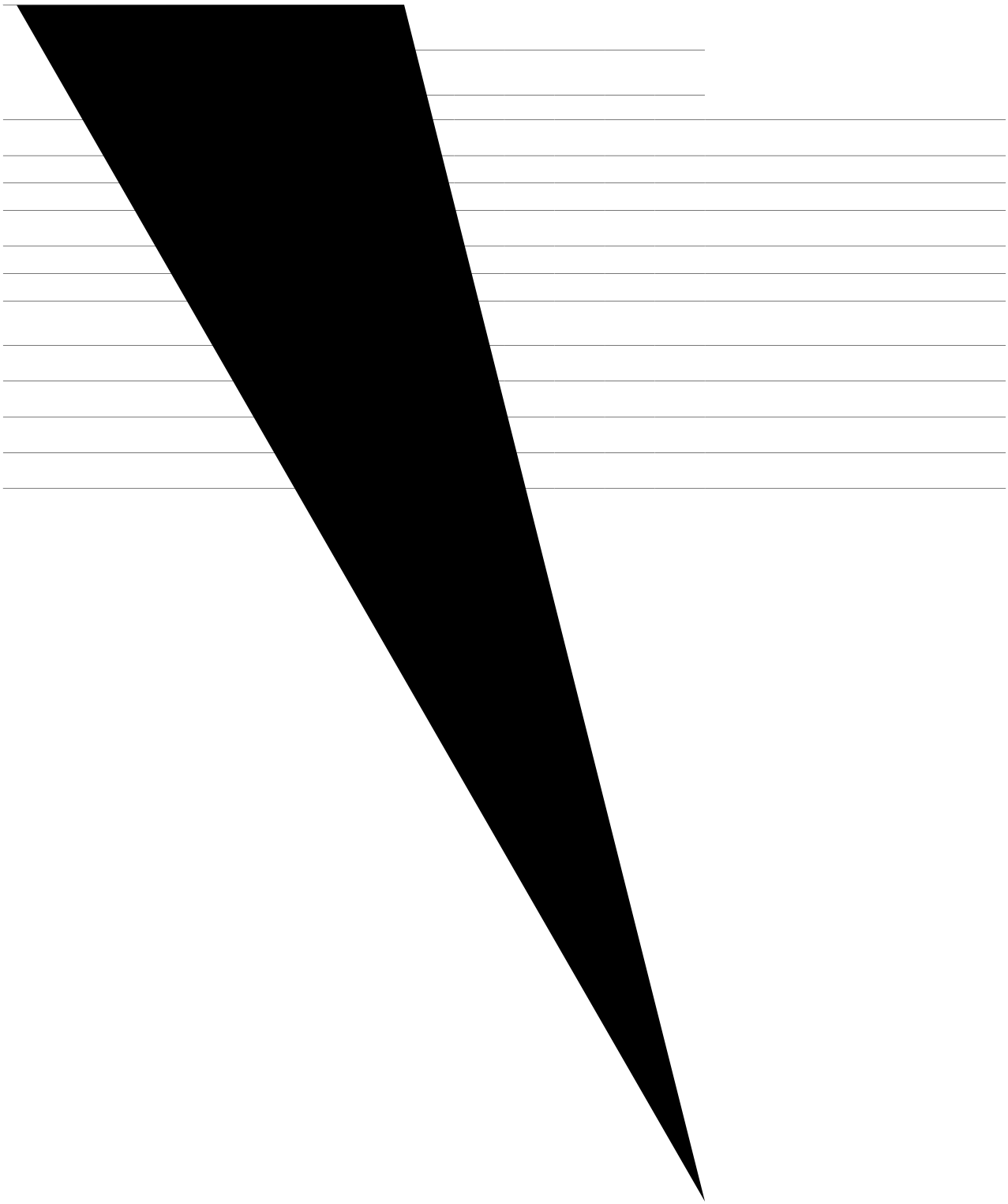
to graduate outlined above in the Program Structure. If unsure about a suitable enrolment pattern, students should contact the F

Physics and Astronomy specialisation recommended enrolment pattern - full-time commencing Semester 1 or Semester 2

Students are able to enrol in any offered mode of a course (on-campus, external or online), regardless of the program mode of study they enrolled in.

The recommended enrolment pattern for this specialisation is a recommended example. Students may vary or select their own pattern, keeping in mind any course pre-requisites, timetable constraints and the requirements to graduate outlined above in the Program Structure. If unsure about a suitable enrolment pattern, students should contact the Faculty of Health, Engineering and Sciences.



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Plus one of the following courses:							
PHY8001 Observational Astronomy†#					2	1	
PHY8002 Planetary Science†#					2	1	
PHY8003 Galactic Astronomy and Cosmology†#					2	2	
PHY8004 Stellar Astronomy†#					2	2	

Footnotes

* Astronomical observations for each course are made remotely via internet access to USQ's Mt Kent Observatory. Voluntary field nights will also be made available.

† Two unit course

\# Astronomical observations for each course are made remotely via internet access to USQ's Mt Kent Observatory.

Mathematics and Statistics specialisation recommended enrolment pattern - full-time

Students are able to enrol in any offered mode of a course (on-campus, external oron-campus, e

Sport and Exercise Specialisation recommended enrolment pattern - full-time commencing Semester 1 or Semester 2

Students are able to enrol in any offered mode of a course (on-campus, external or online), regardless of the program mode of study they enrolled in.