The University of Southern Queensland

Course specification

The current and official versions of the course specifications are available on the web at <http://www.usq.edu.au/coursespecification/current>.
Please consult the web for updates that may occur during the year.

Description: Mathematics/Statistics Complementary Studies A

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
MAT	8180	86197	1, 2009	ONC	1.00	Toowoomba

Academic group: FOSCI
Academic org: FOS003
Student contribution band: 6
ASCED code: 010199

STAFFING

Examiner: Dmitry Strunin
Moderator: Richard Watson

OTHER REQUISITES

Pre-requisite: Enrolment in this course is only available to students in Honours, Masters and some other Postgraduate programs and such enrolment requires the permission of the appropriate Program Coordinator.

RATIONALE

This course exists to satisfy the need for some flexibility in Honours and Masters programs in Mathematics and Statistics to cater for the widely varying interests and chosen specializations of students.

SYNOPSIS

This course provides the opportunity for a student to pursue an area of study that will complement the other studies in the student's program. Typically the course will consist of specialized investigations extending knowledge and skills in a certain area. The studies could involve, for example, directed readings, extension of the project (where appropriate), or some other approved activity which would complement the student's studies in the program.

OBJECTIVES

On successful completion of this course students will be able to:

1. demonstrate knowledge and skills in the complementary study area (specified assignments).

TOPICS

	Description	Weighting (%)
1.	The content of the course may be chosen to be one of the following areas; other choices may be available. Suitable Level 3 courses enhanced by advanced work may also be chosen. The content of the course may vary from student to student.	99.00

1.1. What is Mathematics? (Ron Addie)

1.2. Mathematical methods of asymptotic approximation (Tony Roberts)

1.3. Quantum Computing (Tony Roberts)

1.4. Water Waves (Tony Roberts)

1.5. Games Theory (Tony Roberts)

1.6. Introduction to Hydrodynamic Stability (Sergey Suslov)

1.7. Mathematical Biology (Sergey Suslov)

1.8. Mathematics: the role of attitudes and beliefs (Patricia Cretchley)

1.9. Computer Algebra: Friend or foe? (Patricia Cretchley)

1.10. Mathematics Assessment: Current issues and trends (Patricia Cretchley)

1.11. Is Mathematics Education a Research Domain? (Patricia Cretchley)

1.12. Bridging the Gaps: Primary to Secondary, and Beyond (Patricia Cretchley)

1.13. Towards Gender Equity in Mathematics Education (Patricia Cretchley)

1.14. Teaching Geometry in an age of technology: perspectives for the 21st century (Patricia Cretchley)

1.15. Mathematics then - and now! (Patricia Cretchley)

1.16. Sampling and Survey Design (Ashley Plank)

1.17. Bayesian Statistics (Paul Fahey/Peter Dunn)

1.18. Generalised Linear Models (Peter Dunn)

1.19. Introduction to Banach space theory (Oleksiy Yevdokimov)

1.20. Fundamental constructs in Mathematics Education (Oleksiy Yevdokimov)

1.21. Number theory in historical perspective (Oleksiy Yevdokimov)

2. Assessment for the course will also vary according to the nature of the study undertaken by each student. By the end of the third week of semester, the supervisor will provide to the examiner, for approval by the Associate Dean - 1.00

2.1. an outline of the study

2.2. the objectives of the study

2.3. the format, timing and weighting of the assessment items for the study

2.4. a statement about attendance requirements

2.5. requirements for students to complete each assessment item satisfactorily

2.6. the method used to combine assessment results to attain final grade

2.7. any other requirements deemed necessary by the Examiner

TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at http://bookshop.usq.edu.au click 'Semester', then enter your 'Course Code' (no spaces).

Texts to be advised by the student's supervisor.

REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Course web site: http://www.sci.usq.edu.au/courses/mat8180

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Private Study	150.00
Supervisor Consultation	15.00

ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date
APPROVED ASSESSMENT PROGRAM	100.00	100.00	02 Mar 2009 (see note 1)

NOTES

1. Further details about the due dates are detailed in the assessment section of the Course Specifications.

IMPORTANT ASSESSMENT INFORMATION

1 Attendance requirements:
The complementary study area chosen will be assigned after consultation with the examiner and the appropriate Program Coordinator. Students may be directed to a certain complementary study, or they may be asked to nominate an appropriate study. It is the student's responsibility to find a staff member willing to supervise their study. It is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2 Requirements for students to complete each assessment item satisfactorily:
To be advised when the student's Complementary Studies is determined.

3 Penalties for late submission of required work:
If students submit assignments after the due date without (prior) approval of the examiner then a penalty of 5% of the total marks gained by the student for the assignment may apply for each working day late up to ten working days at which time a mark of zero may be recorded. No assignments will be accepted after model answers have been posted.

4 Requirements for student to be awarded a passing grade in the course:
To be assured of receiving a passing grade a student must achieve at least 50% of the total weighted marks available for the course.

5 Method used to combine assessment results to attain final grade:
To be advised when the student's Complementary Studies is determined.

6 Examination information:
There is no examination in this course.

7 Examination period when Deferred/Supplementary examinations will be held:
As there are no examinations in this course, there will be no deferred or supplementary examinations.

8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL http://www.usq.edu.au/corporateservices/calendar/part5.htm or in the current USQ Handbook.

ASSESSMENT NOTES

9 The supervisor will advise the student and the examiner of the details of the study and the assessment program in writing by the end of week 3 of the semester as described in TOPICS above.