



The University of Southern Queensland

Course Specification

Description: Mathematics Honours Project B

Subject	Cat-Nbr	Class	Term	Mode	Units	Campus
MAT	4101	24382	2, 2003	ONC	2.00	TWMBA

Academic Group:	FOSCI
Academic Org:	FOS003
HECS Band:	2
ASCED Code:	010101

STAFFING

Examiner: Tony Roberts
Moderator: Dmitry Strunin

PRE-REQUISITES

Pre-requisite: MAT4100

RATIONALE

An in-depth project and thesis are necessary to prepare graduates for further research and responsible jobs in mathematics and its applications. This course in conjunction with MAT4100, Mathematics Honours Project A, enables students to develop research capability and an advanced level of mathematical skills for that purpose.

SYNOPSIS

This course forms the second half of the research training component of the Mathematics Honours program. A selected project in applied mathematics or statistics will be completed with supervision by appropriate staff from the Department of Mathematics and Computing. The project will consist of review and research into a well defined area of mathematics and its application. Information and ideas will be gathered, organised, analysed and discussed in a critical and evaluative manner. The topic of the project and report will be selected in consultation with the staff of the Department.

OBJECTIVES

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

- demonstrate the ability to develop higher level mathematical or statistical skills which include the analysis, synthesis and evaluation of factors involved in the project;

- demonstrate the ability to complete an extensive research based project and evaluate the results;
- effectively document and communicate the results of the project and the methods used.

TOPICS

Description	Weighting (%)
1. Candidates will complete a supervised research project in consultation with appropriate Mathematics staff.	100.00

TEXT and MATERIALS required to be PURCHASED or ACCESSED:

Books can be ordered by fax or telephone. For costs and further details use the 'Book Search' facility at <http://bookshop.usq.edu.au> by entering the author or title of the text.

To be advised depending on the research project.

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.

Appropriate material from: - books, monographs - journals and conference proceedings - computer software and material from electronic sources.

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Project Work	310
Supervisor Consultation	30

ASSESSMENT DETAILS

Description	Marks Out of	Wtg(%)	Required	Due Date
LITERATURE & RESOURCE SURVEY	1.00	0.00	Y	25 Jul 2003
SEMINAR	5.00	5.00	Y	21 Nov 2003
DISSERTATION	95.00	95.00	Y	21 Nov 2003

IMPORTANT ASSESSMENT INFORMATION

1 Attendance requirements:

There are no attendance requirements for this course. However, 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:
Not applicable.
- 3 Penalties for late submission of required work:
Not applicable.
- 4 Requirements for student to be awarded a passing grade in the course:
Not applicable.
- 5 Method used to combine assessment results to attain final grade:
Two Examiners will be nominated by the Research and Postgraduate Coordinator to assess one or more students' dissertations and final seminar. The Examiners, who must be present at the seminar, will independently assess the seminar and dissertation in the following aspects: Understanding of literature and content for this work; Explanation of literature and content and adequacy of citations; Difficulty of the task undertaken by the student; Contribution to the subject by the student; and Quality of presentation. Each of these aspects will be given a mark in the range 0-20 and the final mark will be obtained by adding these together. The Examiners will then meet and determine a final grade. Where the Examiners cannot reach a consensus, the procedure in USQ Regulation 5.13 Master of Philosophy 14. Lack of consensus between Examiners will be followed except that the third Examiner may be an internal Examiner other than the student's supervisor and the process will be arranged by the Department of Mathematics and Computing. The final grades for students will be assigned on the basis of the weighted aggregate of the marks obtained for each of the summative assessment items in the course. The grade awarded for this course will also be awarded for the Course CSC8404 MComp Project A.
- 6 Examination information:
There is no examination in this course.
- 7 Examination period when Deferred/Supplementary examinations will be held:
There will be no Deferred or Supplementary examinations in this course.
- 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/SECARIAT/calendar/Part5/> or in the printed version of the current USQ Handbook.

ASSESSMENT NOTES

- 9 It is the student's responsibility to make themselves available for consultation with their supervisor to ensure the best chance of meeting the objectives of the course.
- 10 The entire project of which this course forms a component will normally proceed through the following stages: (i) Project Proposal (a short document should be prepared), (ii) Preliminary Seminar, (iii) Plan (another document should be prepared), (iv) Consideration of ethics, including the obtaining of ethical clearance, if necessary, (v) Literature and Resource review, (vi) Final Seminar, (vii)

Dissertation. Some of these stages may be skipped when appropriate. The last item, the dissertation, will always be required and will contribute 95% to the assessment. The first course (MAT4100) will normally include items (i) to (iv) and the second course (MAT4101) will normally include items (v) to (vii).

- 11 The dissertation will be assessed on the demonstrated quality of: incorporation of established knowledge; assimilation of research literature; use of scientific techniques; innovation; and technical writing.