Description: Mathematics Honours Project A

<table>
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<th>Subject</th>
<th>Cat-Nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
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<tr>
<td>MAT</td>
<td>4100</td>
<td>10367</td>
<td>1, 2002</td>
<td>ONC</td>
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Academic Group: FOSCI
Academic Org: FOS003
HECS Band: 2
ASCED Code: 010101

STAFFING
Examiner: Tony Roberts
Moderator: Paul Fahey

RATIONALE
An in-depth project and dissertation are necessary to prepare graduates for further research and responsible jobs in mathematics and its applications. This course in conjunction with MAT4101 Mathematics Honours Project B, enables students to develop research capability and an advanced level of mathematical skills for that purpose.

SYNOPSIS
This course forms the first half of the research training component of the Mathematics Honours programme. It develops the foundation for ultimately completing a selected project in applied mathematics or statistics 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 and analysed 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 conduct a research literature survey in mathematics;
- demonstrate the ability to plan a suitable and approved research investigation topic;
- demonstrate the ability to develop higher level mathematical or statistical skills which include the analysis, synthesis and evaluation of factors involved in the project.
TOPICS

Description Weighting (%)

1. Candidates will prepare a project topic 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

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks Out of</th>
<th>Wtg(%)</th>
<th>Required</th>
<th>Due Date</th>
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<tr>
<td>LITERATURE SURVEY</td>
<td>999.00</td>
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<td>Y</td>
<td>04 Mar 2002 (see note 1)</td>
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<td>SEMINAR</td>
<td>999.00</td>
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<td>PRELIMINARY PROJECT REPORT</td>
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NOTES:

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

1 The result for this course will be assigned upon completion and assessment of MAT4101 Mathematics Honours Project B.

2 In accordance with University's Policy on Assignments (Regulation 5.6.1), the examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances. This policy may be found in the USQ Handbook, the Distance Education Study Guide and the Faculty of Sciences' Orientation Handbook for new on-campus students. All students are advised to study and follow the guidelines associated with this policy.

3 It is the student's responsibility to make themselves available for consultation with their supervisor to ensure the best chance to meet the objectives of the course.

4 The entire project of which this course forms a component will normally proceed through the following stages: (a) Project Proposal (a short document should be prepared), (b) Preliminary Seminar, (c) Plan (another document should be prepared), (d) Consideration of ethics, including the obtaining of ethical clearance, if necessary (e) Literature and Resource review, (f) Final Seminar, (g) Dissertation, although some of these stages may be skipped when appropriate. The last item, the dissertation, will always be required and will normally contribute 90% to the assessment. The first course (MAT4100) will normally include items 1 to 4 and the second course (MAT4101) will normally include items 5 to 7.