The University of Southern Queensland

Course Specification

Description: Mathematics Tertiary Preparation Level C

<table>
<thead>
<tr>
<th>Subject</th>
<th>Cat-Nbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
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<td>TPP</td>
<td>7183</td>
<td>20007</td>
<td>1, 2003</td>
<td>EXT</td>
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Academic Group: OPACS
Academic Org: OPACSP
HECS Band: 2
ASCED Code: 010199

STAFFING
Examiner: Lucy George
Moderator: Janet Taylor

PRE-REQUISITES
Pre-requisite: TPP7182

RATIONALE
Students who intend to enrol in Science (other than Psychology and Mathematics), Bachelor of Technology, Engineering, Surveying, Bachelor of Information Technology (Applied Computer Science, Networking, Software Engineering and Associate Degrees of Engineering, Surveying, Mathematics and Computing, will be required to complete this course. This preparatory mathematics course is designed to provide students with the basic mathematical competencies for these tertiary studies.

SYNOPSIS
Using the concepts of self-paced instruction the course guides students through a carefully sequenced series of topics which will provide the foundation for understanding the mathematics that will be encountered in their tertiary study. The self-paced structure of the course allows students to work through the material at a pace suitable to their needs, permitting them to work quickly through familiar material, as well as allowing the opportunity to seek additional assistance in areas of uncertainty.

OBJECTIVES
On successful completion of this course a student should be able to:

- demonstrate the application of higher order thinking skills necessary for the successful learning of mathematics at a higher level
- solve complex mathematical problems
• demonstrate improved problem solving skills in mathematics using technology
• discuss mathematical perspectives in relation to the real world

TOPICS

Description Weighting (%)  
1. Managing Mathematics 1.00  
2. Revision topics- Do you understand this? 1.00  
3. Relations and Functions 15.00  
4. Special functions - trigonometric 20.00  
5. Analytical geometry - representing points, curves and planes 20.00  
6. Differentiation - looking at change 23.00  
7. Integration 20.00  

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.

All required textbooks for this course will be provided by OPACS. Student will need to acquire a scientific calculator. Student will need access to a computer.

ASSESSMENT DETAILS

<table>
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<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>ASSIGNMENT 1</td>
<td>1.00</td>
<td>0.00</td>
<td>Y</td>
<td>07 Mar 2003</td>
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<td>ASSIGNMENT 2</td>
<td>34.00</td>
<td>5.00</td>
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<td>ASSIGNMENT 3</td>
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<td>ASSIGNMENT 4</td>
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<td>100.00</td>
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NOTES:

. Examination date will be available during this semester. Please refer to the examination timetable when published.

OTHER REQUIREMENTS

1 To gain a passing grade, students must submit ALL assignments before the exam period and obtain a satisfactory result in each assessment item. Students who are
unable to meet these requirements and who wish to apply for special consideration are required to apply in writing to the Course Team Leader prior to the examination. In these cases students may be granted a supplementary examination or assignments as appropriate.

2 Students may be required to submit extra work for each assignment which is deemed unsatisfactory.

3 The time it will take to complete this mathematics course will vary and will depend on the student's background and experiences; times indicated above are a guideline only.