Description: Project and Dissertation

<table>
<thead>
<tr>
<th>Subject</th>
<th>Catnbr</th>
<th>Class</th>
<th>Term</th>
<th>Mode</th>
<th>Units</th>
<th>Campus</th>
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<tbody>
<tr>
<td>ENG</td>
<td>8002</td>
<td>34659</td>
<td>2004</td>
<td>EXT</td>
<td>4.00</td>
<td>TWEMBA</td>
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</table>

Academic group: FOENS
Academic org: FOENSV
Student contribution band: 2
ASCED code: 039999

STAFFING
Examiner: David Butsworth
Moderator: Nigel Hancock

REQUISITES
Pre-requisite: ENG8001

RATIONALE
It is essential that graduates of Masters degree programmes in engineering should not only possess a comprehensive knowledge of their subject areas but should also be able to apply that knowledge to the solution of problems. The Project and Dissertation course builds on the work undertaken in "ENG8001 Engineering and Surveying Research Methodology" and develops further the students’ skills in research and the development of a solution to an engineering problem. At this level, students are expected to be able to plan effectively, to adhere to prescribed timelines and to display initiative.

SYNOPSIS
This course provides a vehicle for students to apply their formal knowledge to the solution of an engineering problem. With appropriate supervision, students will define and analyse the problem, and then develop and evaluate possible solutions. Where possible, the solution to the problem will be trialed using appropriate hardware. Students are expected to produce an accurate and detailed written account of their work.

OBJECTIVES
On completion of this course, students should be able to:

1. define and investigate engineering problems;
2. develop and evaluate possible solutions to engineering problems;
3. identify and plan the activities necessary to implement a solution to an engineering problem;
4. undertake a complex task over a period of time with minimal guidance and supervision;
5. present an accurate, written account of an extensive and complicated body of work.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Students will undertake an individual, generally open ended project which</td>
<td>70.00</td>
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<tr>
<td>will encompass a range of engineering skills appropriate to the student's</td>
<td></td>
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<tr>
<td>major of study. Activities may include: planning and management; investigation;</td>
<td></td>
</tr>
<tr>
<td>feasibility assessment; experimental work and trialing; fieldwork, data</td>
<td></td>
</tr>
<tr>
<td>analysis; design; prototype construction and testing; simulation and</td>
<td></td>
</tr>
<tr>
<td>modelling; fincal analysis.</td>
<td></td>
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<tr>
<td>2. The work will be undertaken with the guidance of a supervisor or</td>
<td>5.00</td>
</tr>
<tr>
<td>supervisors, normally appointed from the academic staff of the Faculty.</td>
<td></td>
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<tr>
<td>Sponsors and supervisors external to the Faculty may also be involved.</td>
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<tr>
<td>3. On conclusion of the project, students will be required to present a</td>
<td>20.00</td>
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<tr>
<td>dissertation.</td>
<td></td>
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<tr>
<td>4. Preparation and delivery of a technical seminar.</td>
<td>5.00</td>
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</table>

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).

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.

The project will require full use of the resources of the Library eg literature searches, research papers, journals and trade literature files.
STUDENT WORKLOAD REQUIREMENTS:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>Project Work</td>
<td>430.00</td>
</tr>
<tr>
<td>Report Writing</td>
<td>150.00</td>
</tr>
<tr>
<td>Seminars</td>
<td>10.00</td>
</tr>
<tr>
<td>Supervisor Consultation</td>
<td>30.00</td>
</tr>
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</table>

ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISSERTATION &amp; DEMONSTRATIONS</td>
<td>100.00</td>
<td>100.00</td>
<td>29 Oct 2004</td>
</tr>
<tr>
<td>(see note 1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEMINAR</td>
<td>1.00</td>
<td>0.00</td>
<td>29 Oct 2004</td>
</tr>
<tr>
<td>(see note 2)</td>
<td></td>
<td></td>
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NOTES:

1. Refer to Assessment Notes 1, 2, 3 and 4 in the Assessment Notes of this Course Specification.
2. Refer to Assessment Note 5 in the Assessment Notes of this Course Specification.

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:
   Students must (i) meet the requirements as set out in the Faculty of Engineering and Surveying Dissertation Handbook; (ii) provide satisfactory demonstration/s (as appropriate to the individual project topic) and (iii) give a satisfactory seminar.

3 Penalties for late submission of required work:
   Students who do not submit EITHER the completed project OR a satisfactory statement of progress by the Due Date will normally be graded F in this course.

4 Requirements for student to be awarded a passing grade in the course:
   To be assured of a passing grade, students must demonstrate that they have achieved the required minimum standards in relation to the objectives of the course by satisfactorily completing all summative assessment items, as stated in 2 above.

5 Method used to combine assessment results to attain final grade:
   Grades for students will be assigned on the basis of the weighted aggregate project dissertation, demonstrations and seminar.

6 Examination information:
   There is no examination in this course.
7 Examination period when Deferred/Supplementary examinations will be held:
   Not applicable.
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

1 DEADLINES (a) Students who have not completed their project by the Due Date
   must submit a statement of progress which, if judged satisfactory, will result in the
   award of the temporary grade of IDM. (b) Students graded IDM must complete
   their projects within twelve (12) months of the Due Date. (c) Project work not
   completed within twelve (12) months of the Due Date will normally be graded F
   (Fail).

2 INITIAL SUBMISSION (a) Students will submit a single copy of their dissertation
   for assessment purposes. This copy must be bound to at least comb, spiral or
   equivalent standard. (b) Amendments required by the examiners must be made to
   the satisfaction of the supervisor before final (electronic) copies of the dissertation
   are submitted. (c) A dissertation that is not in the required format as specified in
   the Faculty of Engineering and Surveying Dissertation Handbook will not be
   assessed.

3 ASSESSMENT (a) Assessment of the project and dissertation shall be with respect
   to the final version of the individual project specification and will take into account
   the degree of difficulty of the work. (b) Project assessment may also involve
   demonstration of hardware constructed, software written and/or inspection of
   fieldwork as appropriate. (c) At least two members of academic staff shall perform
   the assessment, one of whom will normally be the supervisor. In the case of any
   dispute that cannot be resolved by the assistant examiners or examiner, the Dean's
   decision shall be final. (d) The recommended grade will not be confirmed until the
   Final Submission (item 4 below) is received and judged satisfactory.

4 FINAL SUBMISSION (a) Final submission must normally be within a period of
   three (3) calendar months from the date of return of the assessed initial submission.
   (b) Final dissertation submission shall be in both electronic form PLUS a printed
   copy of ALL pages on which amendments have been made. (c) The electronic
   form for the complete dissertation will normally be a single file in PDF (Adobe Portable
   Document Format) on a read-only compact disk (CD-R) and TWO (2) identical
   CDs are required. CDs which do not meet the obligatory requirements of this format
   as detailed in the ENG8002 course materials will not normally be accepted.

5 SEMINARS (a) The student shall present a seminar which must be of a satisfactory
   standard. (b) A student whose seminar is not of a satisfactory standard shall present
   further seminar/s until a satisfactory standard is achieved. (c) The seminar may be
   either on campus as negotiated with the course Examiners; or off campus at an
   event or venue to the satisfaction of the Examiner. (d) Where the seminar
   presentation is off campus the student will provide both a video tape or CD
recording of the presentation during its delivery to the audience at the agreed event or venue; AND a copy of audio visual aids used during the presentation. (e) The seminar must normally be presented within twelve (12) months of the Due Date.

OTHER REQUIREMENTS

1 TOPICS AND SUPERVISORS (a) Both project topics and supervisors will be allocated by the examiner on the advice of one of the assistant examiners depending on the student’s major study, staff availability for supervision and, where practicable, student preferences. (b) The student shall communicate with the supervisor at regular intervals, normally weekly, or as indicated by the supervisor and keep whatever records of progress the supervisor may require (eg a log book).

2 PROJECT SPECIFICATION (a) An individual project specification will be developed and written by the candidate in consultation with the supervisor for each project endorsed by the student and lodged with the examiner. Normally this specification will be based on the proposal developed in "ENG8001 Research in Engineering". (b) A revised project specification may be written during the course of the project if the work diverges significantly from the original project conception. (c) The project specification will be used for management and assessment purposes throughout the duration of the project.

3 LIMITATIONS OF USE OF PROJECT WORK (a) The Council of the University of Southern Queensland, its Faculty of Engineering and Surveying, and the staff of the University of Southern Queensland, do not accept any responsibility for the truth, accuracy or completeness of material contained within or associated with this dissertation. (b) Persons using all or any part of this material do so at their own risk, and not at the risk of the Council of the University of Southern Queensland, its Faculty of Engineering and Surveying or the staff of the University of Southern Queensland. (c) This dissertation reports an educational exercise and has no purpose or validity beyond this exercise. The sole purpose of the course pair entitled "Research Project" is to contribute to the overall education within the student's chosen degree program. This document, the associated hardware, software, drawings, and other material set out in the associated appendices should not be used for any other purpose: if they are so used, it is entirely at the risk of the user.