Description: Engineering Practice 1

Subject | Cat-nbr | Term | Mode | Units | Campus
---|---|---|---|---|---
ENG | 1901 | 2, 2010 | EXT | 0 | Toowoomba

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

STAFFING
Examiner: Ahmad Sharifian-Barforoush
Moderator: Peter Penfold

SYNOPSIS
This course is the first of a series of Practice courses that are intended to enable students to acquire engineering and professional practice skills. Engineering practice skills, such as the ability to perform practical and project work, innovation, problem identification and solution, and engineering judgement, will be developed as students progress through their programmes of study through activities such as laboratory and field work, engineering problem solving and design and project work. Students will generally work in teams to assist with the building of group interaction skills such as negotiation and interactive thinking. The development of other professional practice skills, such as written and oral communication, is also encouraged in the engineering practice courses.

In this introductory course, external students will attend a residential school and undertake practical work primarily in the areas of instrumentation and measurement, or engineering materials and manufacturing. They will be required to prepare a comprehensive report and to present a seminar on one aspect of this work. Students will be introduced to the library and computing facilities of the University and are expected to utilise these resources in the compilation of their reports and seminars. A series of keynote addresses will be staged to assist students with their task. On campus students will also undertake practical work in the areas of instrumentation and measurement, or engineering materials and manufacturing, and will be required to prepare a comprehensive report and to present a seminar. For these students, the practical work will be performed throughout the semester. All students will be introduced to the Workplace Health and Safety Act and will undertake a preliminary workplace health and safety exercise. ENG1901 Engineering Practice 1 is intended primarily to cater for the needs of recent school leavers and people with limited working experience in engineering industry. If you have a trade certificate and have been employed in industry for some time, you will probably be able to claim exemption from the course.

OBJECTIVES
The course objectives define the student learning outcomes for a course. On completion of this course students will be able to:
1. demonstrate practical skills in selected technical fields;
2. contribute as part of a team to complete a specific project in a specified time;
3. prepare material for technical reports that demonstrates use of library and computing facilities;
4. analyse scientific data and evaluate the experimental results obtained;
5. contribute to the preparation of a report and the presentation of a seminar; and
6. apply basic health and safety principles in a workplace setting.

TOPICS

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>Measurement and instrumentation or engineering materials and manufacturing</td>
<td>60.00</td>
</tr>
<tr>
<td>Analysis of data</td>
<td>15.00</td>
</tr>
<tr>
<td>Library resources</td>
<td>10.00</td>
</tr>
<tr>
<td>Computing</td>
<td>15.00</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.

ENG1001 Principles of Professional Engineering and Surveying or ENG1002 Introduction to Engineering and Spatial Science Applications External Study Package, USQ Publication, Toowoomba.

ENG1101 Engineering Problem Solving 1 External Study Package, USQ Publication, Toowoomba.


STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>Laboratory or Practical Classes</td>
<td>18.00</td>
</tr>
<tr>
<td>Lectures</td>
<td>4.00</td>
</tr>
<tr>
<td>Private Study</td>
<td>14.00</td>
</tr>
<tr>
<td>Report Writing</td>
<td>12.00</td>
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<tr>
<td>Seminars</td>
<td>2.00</td>
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### 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>PERFORMANCE RECORD</td>
<td>1</td>
<td>20</td>
<td>17 Sep 2010</td>
</tr>
<tr>
<td>PARTICIPATION RECORD</td>
<td>1</td>
<td>20</td>
<td>17 Sep 2010</td>
</tr>
<tr>
<td>SEMINAR</td>
<td>1</td>
<td>20</td>
<td>17 Sep 2010</td>
</tr>
<tr>
<td>PROJECT REPORT</td>
<td>1</td>
<td>20</td>
<td>17 Sep 2010</td>
</tr>
<tr>
<td>WORKPLACE HEALTH &amp; SFTY RPT</td>
<td>1</td>
<td>20</td>
<td>17 Sep 2010</td>
</tr>
</tbody>
</table>

### IMPORTANT ASSESSMENT INFORMATION

1. **Attendance requirements:**
   This course requires attendance at a residential school. It is the students' responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and 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:**
   (i) To satisfactorily complete an individual assessment item, a student must achieve at least 50% of the marks or a grade of at least C. (ii) To complete the practical component satisfactorily, students must complete at least 80% of the practical work in this course to the standard described in the assessment scheme.

3. **Penalties for late submission of required work:**
   If students submit assignments after the due date without extenuating circumstances then a penalty of 5% of the assigned mark may apply for each working day late up to a maximum of ten working days at which time a mark of zero can be recorded for that assignment.

4. **Requirements for student to be awarded a passing grade in the course:**
   To be assured of receiving a passing grade, students must satisfactorily complete (as defined in Statement 2) at least 50% of the practical and other activities.

5. **Method used to combine assessment results to attain final grade:**
   As P is the only passing grade available for this course, all students who are qualified for a passing grade, under the requirements in 4 above, will be given a grade of P. Other students will be given either a Failing grade or an Incomplete grade.

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

7. **Examination period when Deferred/Supplementary examinations will be held:**
   Not applicable.

8. **University Student Policies:**
   Students should read the USQ policies Definitions, Assessment and Student Academic Misconduct to avoid actions which might contravene University policies and practices. These policies can be found at the URL http://policy.usq.edu.au/portal/custom/search/category/usq_document_policy_type/Student.1.html.
ASSESSMENT NOTES

1. The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner.

2. Students must retain a copy of each item submitted for assessment. This must be despatched to USQ within 24 hours if required by the Examiner.

3. In accordance with University's Assignment Extension Policy (Regulation 5.6.1), the examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances.

4. The usual method of assessment submission for the Faculty is by written, typed or printed paper-based media (i) submitted to the Faculty Office for students enrolled in the course in the on-campus mode, or (ii) mailed to the USQ for students enrolled in the course in the external mode. The due date for the assessment is the date by which a student must (i) submit the assessment for students enrolled in the on-campus mode, or (ii) mail the assessment for students enrolled in the external mode.

5. The Faculty will NOT normally accept submission of assessments by facsimile or email.

6. If electronic submission of assessments is specified for the course, students will be notified of this in the course Introductory Book and on the USQ Study Desk. All required electronic submission must be made through the Assignment Drop Box located on the USQ Study Desk for the course, unless directed otherwise by the examiner of the course. The due date for an electronically submitted assessment is the date by which a student must electronically submit the assignment.

7. Students who do not have regular access to postal services for the submission of paper-based assessments, or regular access to Internet services for electronic submission, or are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner of the course to negotiate such special arrangements prior to the submission date.

8. Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non-directed personal study.

9. Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded IDS (Incomplete - Deferred Examination; IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).

10. To be assured of receiving a passing grade students must be judged to have made a genuine effort to contribute to the work of the team, by other team members.

11. Harvard (AGPS) is the referencing system required in this course. Students should use Harvard (AGPS) style in their assignments to format details of the information sources they have cited in their work. The Harvard (AGPS) style to be used is defined by the USQ Library's referencing guide. http://www.usq.edu.au/library/help/referencing/default.htm
EVALUATION AND BENCHMARKING

In meeting the University's aims to establish quality learning and teaching for all programs, this course monitors and ensures quality assurance and improvements in at least two ways. This course:
1. Conforms to the USQ Policy on Evaluation of Teaching, Courses and Programs to ensure ongoing monitoring and systematic improvement. 2. Forms part of the Bachelor of Engineering and/or Bachelor of Engineering Technology program and is benchmarked against the:
   - USQ accreditation/reaccreditation processes which include (i) stringent standards in the independent accreditation of its academic programs, (ii) close integration between business and academic planning, and (iii) regular and rigorous review; and
   - professional accreditation standards of Engineers Australia.

OTHER REQUIREMENTS

1. Students will be assigned to a team at the start of the course. Each team will select a project based on the work performed at one or more practical sessions. One project report will be submitted per team; the team will present one seminar. Details of the project report and the seminar are provided in the Practice Book for the course. As part of the report, team members are required to certify whether or not each member made an appropriate contribution to the work of the group.