The University of Southern Queensland

Course specification

Description: Mechanical Practice 1						
Subject	Cat-nbr	Class	Term	Mode	Units	Campus
MEC	2901	50467	1, 2006	ONC	0.00	Toowoomba

Academic group:	FOENS
Academic org:	FOES02
Student contribution band:	2
ASCED code:	030799

STAFFING

Examiner: Peter Penfold
Moderator: Bob Fulcher

RATIONALE

The successful practice of the profession of Mechanical Engineering requires a clear understanding of the relationship between engineering theory and engineering practice. An ability to recognise when a particular theory is applicable and an ability to accommodate the deviations from the theory that occur in the real world is essential. Some knowledge of a wide range of practical techniques, propriety devices, materials, production and assembly methods is also necessary. The engineer must be able to assess a complex situation to identify the critical elements and develop a workable, cost-effective solution. This all requires considerable self-confidence, and the ability to work in and also lead a team. This course continues the step by step development of these skills commenced in ENG1901 Engineering Practice 1 but within a Mechanical Engineering context.

SYNOPSIS

This course presents a series of activities designed to develop specific skills and knowledge relevant to Mechanical Engineering. These activities are to be carried out on an individual or small group basis.

OBJECTIVES

The course objectives define the student learning outcomes for a course. The assessment item(s) that may be used to assess student achievement of an objective are shown in parenthesis. On completion of this course, students should be able to:

1. conduct and evaluate engineering tests in accordance with set procedures;
2. use common engineering length measurement instruments;
3. operate Milling and Turning Machine tools to produce a simple component;
4. employ safe working practices.

TOPICS

	Description	Weighting (%)
1.	Linear measurement	5.00
2.	Meast. fundamental properties	10.00
3.	Milling exercise	10.00
4.	Performance tests (basic)	30.00
5.	Electrical Engineering Activity	20.00
6.	Turning exercise	5.00
7.	Strip and assembly	15.00
8.	Safety in manufacturing	5.00

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.

Holman, JP 2001, *Experimental Methods for Engineers*, 7th edn, McGraw Hill, Boston.

STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	10.00
Laboratory or Practical Classes	40.00

ASSESSMENT DETAILS

Description	Marks out of	Wtg(%)	Due date
REPORT (TASK D)	1.00	10.00	10 Mar 2006 (see note 1)
TASK A	1.00	6.00	16 Jun 2006
TASK B	1.00	12.00	16 Jun 2006
TASK C	1.00	12.00	16 Jun 2006
TASK D	1.00	16.00	16 Jun 2006
TASK E	1.00	20.00	16 Jun 2006
TASK F	1.00	12.00	16 Jun 2006
TASK G	1.00	12.00	16 Jun 2006

NOTES

1. Students will be advised of the due date of this assessment item

IMPORTANT ASSESSMENT INFORMATION

1 Attendance requirements:
(i) 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. (ii) Students must attend and complete the requirements of the Workplace Health and Safety training program for this course before they are able to undertake any practical work in the electrical laboratories.

2 Requirements for students to complete each assessment item satisfactorily:
To satisfactorily complete an assessment item a student must achieve at least 50% of the marks or a grade of at least C-. Students do not have to satisfactorily complete each assessment item to be awarded a passing grade in this course. Refer to Statement 4 below for the requirements to receive a passing grade in this course.

3 Penalties for late submission of required work:
If students submit assignments after the due date without prior approval then a penalty of 5% of the total marks available for the assignment will apply for each working day late.

4 Requirements for student to be awarded a passing grade in the course:
To be assured of receiving a passing grade students must complete at least 95% of the practical and other activities at a satisfactory standard, as stated in the course Assessment Scheme.

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 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.