



The University of Southern Queensland

## Course specification

<b>Description: Mechanical Practice 1</b>						
Subject	Cat-nbr	Class	Term	Mode	Units	Campus
MEC	2901	58150	3, 2006	EXT	0.00	Toowoomba

<b>Academic group:</b>	FOENS
<b>Academic org:</b>	FOES02
<b>Student contribution band:</b>	2
<b>ASCED code:</b>	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, J P 1994, *Experimental Methods for Engineers*, 6th edn, McGraw Hill,

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	10.00
Laboratory or Practical Classes	40.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg(%)	Due date
TASK A	1.00	6.00	23 Feb 2007
TASK B	1.00	12.00	23 Feb 2007
TASK C	1.00	12.00	23 Feb 2007
TASK D	1.00	16.00	23 Feb 2007
REPORT (TASK D)	1.00	10.00	23 Feb 2007
TASK E	1.00	20.00	23 Feb 2007
TASK F	1.00	12.00	23 Feb 2007
TASK G	1.00	12.00	23 Feb 2007

## 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:  
To satisfactorily complete an individual assessment item a student must achieve at least 50% of the marks or a grade of at least C-. (Depending upon the requirements in Statement 4 below, students may not have to satisfactorily complete each assessment item to receive a passing grade in this course.)
- 3 Penalties for late submission of required work:  
Practical reports submitted after the due date will not be assessed.
- 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 85% 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 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 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 Faculty will normally only accept assessments that have been written, typed or printed on paper-based media.
- 5 The Faculty will NOT accept submission of assignments by facsimile.
- 6 Students who do not have regular access to postal services or who are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner of the course to negotiate such special arrangements.
- 7 In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.
- 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).