Description: Mechanical Practice 2

<table>
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<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>1, 2002</td>
<td>ONC</td>
<td>0.00</td>
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Academic Group: FOENS
Academic Org: FOES02
HECS Band: 2
ASCED Code: 030701

STAFFING
Examiner: Chris Snook
Moderator: Bob Fulcher

RATIONALE
The successful practice of the profession of Mechanical Engineering requires an ability to analyse engineering systems and an ability to synthesise new designs. Much of the students coursework in other courses develops these analytical skills. In addition, the engineer must be able to assess a complex situation, identify the critical elements and develop a workable, cost effective solution. All of this requires considerable self-confidence, and the ability to work with and lead teams. In this course the synthesis of new ideas is developed whilst the student participates in a team-based design and build activity.

SYNOPSIS
This course falls naturally into three parts: Part One consists of a design activity where a small team of students develop a design concept for a device capable of satisfying a broadly specified task. Part Two comprises the procurement of appropriate resources and the construction of the device in accord with the design specification developed in Part One. Part Three covers the testing of the device and encourages the student to reflect on the activities and outcomes of the work conducted in Part One and Part Two above.

OBJECTIVES
On successful completion of this course students will be able to:

- Develop design concepts in accord with a generic requirement.
- Demonstrate an understanding of the operation and construction features of a range of common mechanical devices.
- Participate constructively in a teamwork environment.
- Identify the critical elements / phenomena, a few in real situations and propose solutions.
- Conduct a simple product development from initial specification to prototype stage.
- Identify the safety hazards in a standard situation.

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Part One - Design Specification</td>
<td>20.00</td>
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<tr>
<td>2. Part Two - Design Activity</td>
<td>70.00</td>
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<td>3. Part Three - Reflection and Evaluation</td>
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**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.


**STUDENT WORKLOAD REQUIREMENTS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Laboratory or Practical Classes</td>
<td>45</td>
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<td>Report Writing</td>
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**ASSESSMENT DETAILS**

<table>
<thead>
<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>LABORATORY REPORT</td>
<td>200.00</td>
<td>20.00</td>
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<td>GROUP REPORT</td>
<td>600.00</td>
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**NOTES:**

1. Further details about the due dates are detailed in the assessment section of the Course Specifications.
2. Further details about the due dates are detailed in the assessment section of the Course Specifications.
3. Further details about the due dates are detailed in the assessment section of the Course Specifications.
OTHER REQUIREMENTS

1 Attendance at a minimum of 80% of practical and/or residential school sessions is compulsory for a passing grade to be awarded in this course.
2 The only final grades awarded in this course are Pass (P) or Fail (F) grades.
3 The three assessments for this course will be completed during the on campus residential school.
4 A minimum standard of communication skills must be demonstrated in order for a passing grade to be achieved.
5 The due date for an assignment is the date by which a student must submit the assignment to the USQ. The onus is on the student to provide proof of the submit date, if requested by the Examiner.
6 Students must retain a copy of each item submitted for assessment. This must be produced within five days if required by the Examiner.
7 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.
8 If students submit assignments after the due date without prior approval then a penalty of up to 20% of the total marks for the assignment will apply for each working day late.
9 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.
10 The Faculty of Engineering and Surveying will NOT accept submission of hand written or typed assignments by facsimile, e-mail or computer diskette. Students in remote locations who do not have regular access to postal services may be given special consideration.
11 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.
12 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; IDSM (Incomplete Deferred Examination and Make-up).