16130 INTRODUCTION TO ENGINEERING

Module Registrar: Prof D Mackenzie
d.mackenzie@strath.ac.uk

Taught To (Course): Cohorts for whom class is elective

Other Lecturers Involved: Dr Barbara A Keating

Credit Weighting: 10
Semester: 2

Assumed Prerequisites: None
Elective class
Academic Level: 1

Module Format and Delivery (HOURS i.e. 1 credit = 10hrs of study hours):

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Tutorial</th>
<th>Laboratory</th>
<th>Groupwork</th>
<th>External</th>
<th>Online</th>
<th>Project</th>
<th>Assignments</th>
<th>Private Study</th>
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Educational Aim

This module aims to develop students' wider understanding of engineering as a wealth-creating activity and the role of the professional engineer in society.

Learning Outcomes

On completion of the module the student is expected to be able to

LO1 Understand the fundamental science and engineering concepts involved in modern engineering practice.

LO2 Appreciate the wide range of activities undertaken by modern professional engineers and understand the contribution of engineers to wealth generation and the associated ethical requirements placed upon them.

Syllabus

The module will teach the following:

- Overview of engineering and modern engineering disciplines
- Engineering, science and technology
- Engineering materials and design
- Energy generation, efficiency and sustainability
- Engineering ethics
- Social / ecological/environmental aspects

Assessment of Learning Outcomes

Criteria

For each of the Module Learning Outcomes the following criteria will be used to make judgements on student learning:

LO1
C1 Demonstrate understanding of how fundamental science and engineering concepts underpin modern engineering practice with reference to specific applications from the syllabus.

LO2
C1 Ability to describe and critically discuss the role of the engineer in society with reference to societal and economic impact in a clear and concise manner.
12 Principles of Assessment and Feedback
(on Learning & Teaching web pages: www.strath.ac.uk/learnteach/teaching/staff/assessfeedback/12principles/)

Marked coursework with individual written feedback will be returned to students 3 weeks after the submission date. Individual students requiring further feedback may arrange a personal meeting with the lecturer.

Assessment Method(s) Including Percentage Breakdown and Duration of Exams

<table>
<thead>
<tr>
<th>Examinations</th>
<th>Courseworks</th>
<th>Projects</th>
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<tr>
<td>Number</td>
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L/Outcomes

| LO1, LO2 |

Indicate which learning outcomes (L01, L02 etc) are to be assessed by exam/coursework/project as required.

Coursework / Submissions deadlines: Week 6, Week 12

Resit Assessment Procedures: 2hr examination in August

PLEASE NOTE:
Students need to gain a summative mark of 40% to pass the module. Students who fail the module at the first attempt will be re-examined during the August diet. This re-examination will consist entirely of a 2 hour exam.

Recommended Reading

N/A

Additional Student Feedback
(Please specify details of when additional feedback will be provided)

Date | Time | Room No

Session: 2014-15

Approved:

Course Director Signature:

Date of Last Modifications: 13 August 2014
## Module Timetable

<table>
<thead>
<tr>
<th>Module Code:</th>
<th>16130</th>
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<tbody>
<tr>
<td>Module Title:</td>
<td>INTRODUCTION TO ENGINEERING</td>
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### Brief Description of Assessment:
2 Assignments (1,300 – 1,500 words) addressing specific course topics.

### Assessment Timing:
Indicate on the table below the Start/Submission dates for each Assignment/Project and the timing of each Exam/Class Test(s).

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<tr>
<th>Semester One</th>
<th>WK1</th>
<th>WK2</th>
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<th>WK7</th>
<th>WK8</th>
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<th>WK7</th>
<th>WK8</th>
<th>WK9</th>
<th>WK10</th>
<th>WK11</th>
<th>WK12</th>
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