MODULE DESCRIPTION FORM

DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

16130 INTRODUCTION TO ENGINEERING

Module Registrar: Prof Donald Mackenzie d.mackenzie@strath.ac.uk	**Taught To (Course): Cohorts for whom class is elective**		
Other Lecturers Involved: Dr Gemma Houston	**Credit Weighting: 10**	**Semester: 2**	
Assumed Prerequisites: None	**Elective class**	**Academic Level: 1**	**Suitable for Exchange: Y**

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

Lecture	Tutorial	Laboratory	Groupwork	External	Online	Project	Assignments	Private Study	**Total**
20							40	40	100

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 industry and society.

Learning Outcomes

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

LO1 Understand the nature of engineering as an activity, including basic science and engineering concepts involved in engineering practice.
LO2 Appreciate the range of activities undertaken by professional engineers, and the contribution of engineers to wealth generation.
LO3 Understand the societal and ethical requirements placed on professional engineers.

Syllabus

The module will teach the following:

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

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 discuss the role of the engineer with reference to technical and economic impacts in a clear and concise manner.

L03
C1 Ability to describe and critically discuss the role of ethics in engineering and the requirements placed upon individual professional engineers.

The standards set for each criterion per Module Learning Outcome to achieve a pass grade are indicated on the assessment sheet for all assessment.

Principles of Assessment and Feedback
(within Assessment and Feedback Policy at: https://www.strath.ac.uk/professionalservices/staff/policies/academic/)

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 relevant lecturer/Class Registrar.

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

Examination				Coursework		Practical		Project	
Number	Month(s)	Duration	***Weighting***	Number	***Weighting***	Number	***Weighting***	Number	***Weighting***
				2	100% (50% each)				
*				* LO1, LO2, LO3		*		*	

* ***L/Os:*** *Indicate which Learning Outcomes (L01, L02, etc) are to be assessed by exam/coursework/practical/project as required.*

NOTE:
Students must attend a **minimum of 14** (of 20) **lectures**. This is a course **requirement**. Students not meeting this requirement will **not qualify** for the first assessment of the class and will be recorded as being "Not Qualified" (equivalent **to fail with numerical mark of zero**). Students failing to meet the attendance requirement will be eligible to take the resit examination.

Coursework / Submissions deadlines (*academic weeks*):
Week 5, Week 10

Resit Assessment Procedures:
2 hr examination in August diet.

PLEASE NOTE:
Students must gain a summative mark of 40% to pass the module. Students who fail the module at the first attempt will be re-assessed during the August diet. This re-assessment will consist entirely of exam. No marks from any previous attempts will be transferred to the resit attempt.

Recommended Reading

No set texts used or recommended.

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

Date	Time	Room No

Session: 2021/22

Approved:

Course Director Signature: Dr E Henderson (SG)

Date of Last Modifications: September 3, 2021

(Updated July 2021)

MODULE TIMETABLE

Module Code:	**16130**	**Module Title:**	**Introduction to Engineering**

Brief Description of Assessment:

2 Individual articles/reports (1,200 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/assessment using the dropdowns provided. Dropdowns can be left blank. Add extra notes below the dropdowns.

Please note: Timings can and will change, this should only be used as a guide.

Semester One	W&D Wk	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9	WK10	WK11	Exam Period
	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item.

Semester Two	C&D Wk	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9	WK10	WK11	Exam Period
	Choose an item. Choose an item.	Choose an item. Choose an item.	Choose an item. Choose an item.	Course work Set	Choose an item. Choose an item.	Course work Submit	Choose an item. Choose an item.	Choose an item. Choose an item.	Course work Set	Choose an item. Choose an item.	Course work Submit	Choose an item. Choose an item.	Choose an item.