MODULE DESCRIPTION FORM

DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

ME311 Business Analysis in Engineering

Module Registrar: Dr Emma Henderson **e.henderson@strath.ac.uk**	**Taught To (Course): BEng(Hons)/ MEng Mechanical and Aero-Mechanical Engineering, BEng(Hons)/ MEng Electrical and Mechanical - Cohorts for whom class is compulsory / optional**		
Other Lecturers Involved: Dr Bilal Ahmad Industrial mentors	**Credit Weighting: 10**	**Semester: 1**	
Assumed Prerequisites:	**Compulsory class**	**Academic Level: 3**	**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**
10			24				5	61	100

Educational Aim

This module aims to provide students with an introduction to the concept of the conscious pursuit of competitive Advantage in business, and considerations required beyond technical merit in both project level and business level decisions and their impact on engineering decisions.

Learning Outcomes

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

LO1 Understand that business decisions are not simple technically based evaluations in the engineering sector, but involve ethical considerations including security, equality, diversity, inclusion, society, economy and environment.

LO2 Develop key presentation and real time critical business analysis skills commensurate with the modern engineer.

LO3 Understand that the best analysis of a business case should be a team effort, with inputs of appropriate literature research to the basic data.

LO4 Understand that expression of one's ideas in meetings with varying level of formality is an integral and essential part of a professional engineer's competence.

Syllabus

The module will teach the following:

This module is designed to expose students to the holistic complexities of working in a modern engineering environment and equip students with skills to interact and react to altering business objectives in varying time frames.

There are four main areas of the module:

- Fundamental Business Skills, including effective discussion and presentation of ideas
- Reacting to change through real time workplace scenarios.
- Critical, in depth, analysis of businesses and their decision making.
- Development of real time critical thinking and analysis skills.

Utilising examples from a variety of industries, students will work in groups to experience and strategically analyse typical business scenarios from a selection of sources within different time remits and present their recommendations to a wider group.

Students are expected to reflect on their own practise, and the practise of others and analyse decisions made.

Industrial mentors will facilitate student sessions to provide industrially focussed views, support, and commentary.

Students are expected to mentor more junior students to develop their listening and support skills.

Students are expected to reflect on both their own and others' performance throughout the module.

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 Understand that business decisions are not simple technically based evaluations, even in the engineering sector, but involve security, equality, diversity, inclusion, society, economy and environment.
C1 understands source case study material and reflect relative to above themes,
C2 identifies key issues and move beyond what is given or expected,
C3 draws conclusions that are insightful and mindful of our responsibilities as engineers.

LO2 Develop key presentation and real time business thinking skills commensurate with the modern engineer.
C1 can quickly recognise key issues for society and business,
C2 shows capability in identifying priority issues,
C3 synthesises all aspects of the business case study/scenario,
C4 mentors and supports more junior colleagues.

LO3 Understand that the best analysis of a business case should be a team effort, with inputs of appropriate literature research to the basic data,
C1 works as part of a team and develops team working strategies,
C2 performs as part of the team to collect and analyse relevant literature,
C3 presents ideas and proposals as part of the team.

LO4 Understand that expression of one's ideas in a semi-formal meeting is an integral and essential part of a professional engineer's competence,
C1 develops succinct presentations with given presentation guidelines and presents to an audience,
C2 uses relevant technical language with ideas and concepts presented very lucidly,
C3 improves on presentation style with feedback given by industrial mentors.

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/)

Assessment of group performance will be completed during both Business Scenario Workshop and Business Analysis Presentation according to the marking guidance given in the module Myplace page. Both individual and group presentation performance is assessed. Mentors will be on hand during the Workshop to provide real-time feedback and support on the scenario and student performance.

Blogs are using as a means of self-assessment of learning and development throughout the module. As such, while these are reviewed, individual feedback is not provided to students on their blog content; instead, students are encouraged to reflect on their learning journey and re-read blog posts throughout module to identify positive development.

Students are expected to spend a significant time outside the class to prepare Business Analysis presentations as part of a team. Rehearsal of each presentation before the actual presentation day is essential for a successful presentation.

Industrial mentors return informal verbal feedback during the workshop and after each presentation which will be followed up by more formal written feedback.

Feedback can be expected 3 weeks after each group activity. This arrangement streamlines the feedback so that groups presenting later do not gain an advantage.

The summative assessment is given according to the marking schedule which is available on the module Myplace page. Students are expected to act on the feedback given to develop their skills throughout the module. Mentors will encourage discussion of the cases in detail and students are required to reflect on their presentation based on the feedback.

Students are expected to professionally evaluate both their own and others' performance throughout the module.

Concerns regarding the engagement of group members must be indicated to the module teaching team (listed on the MDF) immediately.

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

Blog		**Business Scenario Workshop**		**Business Analysis and Presentation**		**Peer Mark weighting**	
Number	***Weighting***	Number	***Weighting***	Number	***Weighting***	Number	***Weighting***
1 (min 3 entries)	10%	1	35%	1	55%		
* LO4		* LO1-4		* LO1-4			

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

Coursework / Submission deadlines (*academic weeks*):

All students will be assigned a group to complete assessments.

Blog submissions: throughout semester after attendance at compulsory mentoring sessions. Students must complete a minimum of 200-300 word blog posts reflecting on their experiences. All must be submitted by the Thursday of semester 1 week 11.

Business Scenario Workshop (weighting 35%): 1 attendance in weeks 3-5 dependent on groups,
Reflection blog activity due 1 week after workshop attendance.
Breakdown: Discussion (32%), Presentation (48%) and Reflection blog (20%).

Case Study Analysis (weighting 55%): Released two weeks before assessment in week 6-8, presentation weeks 8-10. Peer assessment activity due 1 week after presentation.

Resit Assessment Procedures:
Alternative Business Analysis presentation and discussion during the July/August exam diet.

^^Students must contact the module Registrar for details as soon as results confirm that a resit is required. Note - analysis will be required prior to completion of the presentation.

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 July/August resit exam diet. This re-assessment will consist entirely of a presentation and discussion (scheduled during the resit diet). No marks from any previous attempts will be transferred to a new resit attempt.

Recommended Reading

*****Purchase recommended **Highly recommended reading *For reference**

None

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

Date	Time	Room No

Session: 2024/25

Approved:

Programme Lead/Director Signature: Dr A McLaren
Date of Last Modifications: 04/08/2024

(MAE template updated July 2024)

MODULE TIMETABLE

Module Code:	**ME311**	**Module Title:**	**Business Analysis in Engineering**

Brief Description of Assessment: Assessment will be split into several tasks for students to engage with:

Mentorship Blog will consist of a minimum of 3 blog posts reflecting on student's current or previous mentorship activities. On campus mentorship activities will be scheduled in week 2, 6 and 11. All mentorship blogs must be submitted before the Thursday of week 11.

Workplace Scenario Workshop will consist of attendance and engagement in a 2–3 hour workshop event, followed by a short presentation on the scenario and potential solutions. A blog reflecting on this workshop experience must be submitted 1 week after workshop attendance.

Case Study Analysis: Groups will analyse an assigned case study and present their findings to an experienced academic/industrial mentor panel. For this module, peer assessment will be applied to this group assignment. Students will evaluate their peers' contributions to the assignment using Myplace. The students' grade will be determined by combining the staff grade for that assignment with the students' weighted contribution – determined from each member's evaluation of the student.

Assessment Timing

Indicated on the table below are the start/submission dates for each assignment/project and the timing of each exam/assessment.

Please note: Timings could change during unforeseen periods of disruption; this should only be used as a guide.

Semester	W&D Wk	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9	WK10	WK11	Exam Period
One	Choose an item. Choose an item.	Mentorship Blog Set	Choose an item. Choose an item.	Workshop Set A Mentorship Blog submit	Workshop Set B Workshop Set A Reflective Blog Submit	Workshop Set C Workshop Set B Reflective Blog Submit	Business Analysis release Set A Workshop Set C Reflective Blog Submit	Business Analysis release Set B Mentorship Blog submit	Presentation Set A Business Analysis release Set C	Presentation Set B Presentation Set A. Peer Assessment Submit	Presentation Set C Presentation Set B. Peer Assessment Submit	Mentorship Blog submit Presentation Set C Peer Assessment Submit	Choose an item.