

MODULE DESCRIPTION FORM



DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

ME415 STRATEGIC ANALYSIS OF ENGINEERING BUSINESS CASE STUDIES

Module Registrar: Dr Emma Henderson e.henderson@strath.ac.uk	Taught To (Course): BEng(Hons)/ MEng MAE, BEng(Hons)/ MEng EME Cohorts for whom class is compulsory / optional		
Other Lecturers Involved: Gemma Houston Industrial mentors	Credit Weighting: 10	Semester: 1	
Assumed Prerequisites: 16288 Professional Studies	Compulsory class	Academic Level: 4	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.

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 presentation of ideas
- Reacting to change through real time workplace scenarios.
- Critical, in depth, analysis of business case studies.
- Development of real time critical thinking and analysis skills.

Utilising case studies 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 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.

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 Case Study 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 case study presentations as part of a team. Rehearsal of each presentation before the actual presentation day is essential for a successful presentation. 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 2 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 should 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		Case Study Analysis and Presentation		Peer Marking	
Number	Weighting	Number	Weighting	Number	Weighting	Number	Weighting
1 (min 3 entries)	10%	1	35%	1	35%	1	20%
* LO4		* LO1-4		* 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

Business Scenario Workshop: 1 attendance in weeks 3-5 dependent on groups,
Reflection activity due 1 week after attendance.

Case Study Analysis: Released two weeks before assessment in week 6-8, presentation weeks 8-10.
Peer assess assessment activity due 3 days after presentation

Resit Assessment Procedures:

Presentation of an additional case study analysis during the 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 August exam diet. This re-assessment will consist entirely of a presentation 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: 2023/24

Approved:

Course Director Signature: S Connolly (on behalf of E Henderson)
Date of Last Modifications: 28/08/2023

(Updated August 2023)

MODULE TIMETABLE

Module Code:

ME415

Module Title:

Strategic Analysis of Engineering Business Case Studies

Brief Description of Assessment:

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

Blog will consist of a minimum of 3 blog posts reflecting on student's current or previous mentorship activities with at least 1 blog post also discussing reflective summary of the Workshop.

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.

Case Study Analysis: Groups will analysis an assigned case study and present their findings to an experienced academic/industrial mentor panel. This will include a peer assessment element of assessment.

Assessment Timing

Indicated on the table below are the start/submission dates for each assignment/project and the timing of each exam/assessment. Dropdowns may be left blank. Add extra notes below the dropdowns where relevant.

Please note: Timings can and will change, 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.	Blog Set	Choose an item.	Work shop Set A Blog submit	Work shop Set B	Work shop Set C	Case Study release Set A	Case Study release Set B Blog submit	Presentation Set A Case Study release Set C	Presentation Set B	Presentation Set C	Blog submit	Choose an item.