Module Code	**EG7060**
Module Title	**Mental Wealth: Professional Life**
Coursework Title	**INDIVIDUAL WORK**
Coursework Number	1
Weighting	100%
Handout Date	**16 June 2025**
Coursework Submission Date	**01 September 2025**
Learning Outcomes Assessed by this Coursework.	*Knowledge* 1. Understand quality assurance and quality control procedures used within the industry. (IC). *Thinking skills* 2. Demonstrate a critical awareness of the objectives and issues involved in engineering management 3. Critically apply quality assurance and quality control procedures used within the industry 4. Understand and evaluate contract law and procedures and exercise judgement to apply the main forms of engineering contracts. (IC). 5. Critically assess the environmental impact of engineering projects and the use of sustainable methods of production. (CC) *Subject-based practical skills* 6. Use various numerical methods to analyse project programming & financial controls and to critically and independently evaluate how the findings can be used in the decision-making process *Skills for life and work (general skills)* 7. Undertake professional presentations & display clear communication skills. (DP, SEI)
Turnitin Submission Requirement	YES
Additional Information	**Please read the entire coursework brief to ensure you understand all the requirements before you begin.** This coursework is **individual work** and done independently. ASSESSMENT FEEDBACK - Feedback on your assessment will be available in four working weeks from the submission date. Please refer to the module pages on Canvas for assessment specific details.

Coursework Critical Assessment of Engineering Management Practices through Case Studies

100% - INDIVIDUAL Work

Word Count: 4,000 – 5,000 words (excluding references and appendices)

Please read the entire coursework brief to ensure you understand all the requirements before you begin.

NOTE: You are required to complete a critical assessment (individual coursework) based on the analysis of at least two real-world engineering project case studies. The work should demonstrate advanced understanding and application of engineering management principles at master's level and is expected to take approximately 210 hours of independent study and research.

Critically assess the effectiveness of engineering management strategies in real-world projects by analysing at least two detailed case studies (*See* https://engineeringx.raeng.org.uk/scs-case-studies). Your evaluation should address the role of the engineer in industry and the community, the application of quality assurance and quality control procedures, contract management, financial control methods, and the integration of sustainable engineering practices. Discuss how numerical methods supported project planning and decision-making and reflect on the broader environmental and ethical responsibilities involved in engineering project delivery.

i. Provide a clear introduction to the chosen case studies.
ii. Demonstrate an understanding of engineering management theories and apply them critically.
iii. Critically analyse and compare the management strategies used, including contract procedures, QA/QC frameworks, and financial controls.
iv. Critically discuss the role of the engineer, including ethical, community, and leadership aspects.
v. Critically assess the environmental impact and sustainability methods used in each case.
vi. Use relevant numerical methods and justify their application in project evaluation.
    a. Use real numerical data (budgets, timelines, resource plans) if available to support your analysis.
    b. Demonstrate mastery of theory and its practical application.
vii. Draw conclusions on lessons learned and best practices for future engineering projects.
viii. Present your findings using professional academic and communication standards, including citations, structured arguments, and visual data (where applicable).

Critical Assessment TEXT FORMATTING INSTRUCTIONS

i. **Spelling:** Use British English spellings.

ii. **Font:** Use a plain, easy-to-read font style, such as Calibri. Use font size 11 for the body of the report.

iii. Be consistent with the **size of headings**, for example:

- Title (font size 16, Bold)
- Heading 1 (size 14, Bold)
- Heading 2 (size 12, Bold)
- Heading 3 (size 12, Italics)

Ideally, use the facility for headings in Microsoft Word (Home tab ▶Styles) because this allows for consistency and generation of a table of contents, if required. However, if choosing to use the sizes outlined above, you will need to update the Styles settings to match them. Whatever headings you decide to use, be consistent. Only the first letter of the first word of each heading or subheading is capitalised (except in the case of proper nouns).

iv. **Line spacing Numbers:** The recommended academic standard is 1.5. Single line spacing is not normally used in academic work except for quotations over twenty-five words. Only put a single line space between paragraphs and be consistent throughout the report.

v. **Page numbers** should be centred at the bottom of the page

vi. **Remember that paragraphs** consist of more than one sentence. A paragraph should focus on a single idea, theme or argument. Linking sentences from one paragraph to another ensures coherence.

vii. **Tables** should be numbered and have a heading, for example: Table 1: Literature Framework. The format should be consistent throughout the report.

viii. Word Count Guidelines

Maximum 3000 words (Introduction to Conclusion). Excludes executive summary, cover page, Table of Content, References, and Annexes.

The purpose of a word limit is to provide you as learners with a clear indication of the maximum length for an assessed written piece, helping to set expectations for the scope of work, the level of detail required, and how to manage time effectively for different assignments. **Adhering to word limits is not only an academic skill but also a valuable professional competency.**

Word limits are established based on the assessment objectives. For all coursework assignments, the maximum word count is 3,000 words. Anything beyond this limit will not be marked. The word count includes any allowed tolerance (e.g., a +20% margin). If an executive summary or abstract is required, its word count will be specified separately.

For more information on word count guidelines, read again this coursework question paper or consult with your lecturer for clarification.

1. **DELIVERABLES TO BE UPLOADED** into LSBF Canvas submission link
   - **i** A report in MS Word Document format
     a. A 10-minute video presentation (URL or mp4 format) should be uploaded to Canvas. This video is not graded and is intended solely for the Q&A viva to validate the student's written work.
   - **ii** Turnitin Report
   - **iii** Acknowledgement of Generative AI tool and prompts

If you have used generative AI in assessments, this should be clearly acknowledged. Include proper Harvard citation and references.

Which permitted use *(for example creating content, assisting with research, or generating ideas, according to established **UEL policies and guidelines)* of generative AI are you acknowledging?

Which generative AI tool did you use (name and version)?

What prompt did you provide?

What did you use the tool for?

How have you used or changed the generative AI's output?

EXAMPLE IN APPENDIX OR ANNEX:

Declaration

I acknowledge the use of ChatGPT [https://chat.openai.com/] to help brainstorm topics for an assessment.

I entered the following prompt: "Come up with five questions that would help a university student explore [topic]."

I used the output as a starting point for generating ideas before narrowing down the topic for my assessment.

-END OF COURSEWORK TASK BRIEF-

ANNEX A - ASSESSMENT MARKING SCHEME
Report is marked for 100 marks and contributes 100% to the overall assessment component.

Assessment Criteria	Marks Allocated	Marks Awarded
1. Introduction and Case Study Selection	**10**	
- Clear rationale for selecting the case studies	5	
- Context and relevance to engineering management	5	
2. Understanding of Engineering Management Principles	**15**	
- Demonstrates knowledge of the engineer's role, leadership, and responsibilities	5	
- Application of engineering management theories and models	10	
3. Application of Quality Assurance (QA) and Quality Control (QC) Procedures	**10**	
- Identification and evaluation of QA/QC practices used in the cases	5	
- Critical assessment of their effectiveness and relevance to project success	5	
4. Contract Management and Legal Understanding	**10**	
- Analysis of contract types and procurement procedures used	5	
- Demonstrated understanding of contract law and application in project delivery	5	
5. Financial Controls and Project Programming (Numerical Analysis)	**15**	
- Use of appropriate numerical techniques (e.g., NPV, cost control charts, scheduling models)	5	
- Interpretation and critical evaluation of findings to support decision-making	10	
6. Sustainability and Environmental Impact Assessment	**10**	
- Identification of sustainable methods and practices	5	
- Critical analysis of environmental and ethical implications	5	
7. Critical Analysis and Comparison of Case Studies	**15**	
- Depth of analysis, critical thinking, and reflection	10	
- Comparison of strengths, weaknesses, and lessons learned from both case studies	5	

Assessment Criteria	Marks Allocated	Marks Awarded
8. Communication and Presentation	**10**	
- Clear, structured writing; use of figures/tables to support argument	5	
- Proper referencing (Harvard/APA), professional formatting, spelling, and grammar	5	
9. Conclusion and Recommendations	**5**	
- Coherent summary of key findings and critical recommendations for engineering practice	5	
TOTAL	100	
Marker's feedback i. What did you do well? ii. What did you do less well? iii. What to take forward/improve next time? iv. Comments on Turnitin Similarity Score: v. Comments on prompts used Generative AI tool		

ANNEX B ASSESSMENT CRITERIA

Each of contents in the coursework report will be marked using the following scale:

Report contents – Assessment Criteria	**Grade** **Band**
• Excellent coverage of issues with good exemplification and a complete list of references along with Turnitin report. • Clear signs of excellent understanding of the theme, requirements, design under discussion, develops working model capable of robust functionality for range of environments. • Excellent articulation of points/views/comments, tested, and rigorously evaluated, - Suggests optimization of design methods to accommodate needs, considers additional features useful to customer and design/research methods for optimal incorporation. • Independent analysis, observations, and comments, final report clearly represent a development of the tasks , considers iterative nature of design, and incorporates any relevant design models/charts.	*70-100%* **Excellent**
• Very good coverage of issues with some relevant exemplification with adequate references. • Very good in terms of comprehensiveness and clarity, builds working model capable of essential functions. • Very good use of external sources to support points brought up, relates customer needs to design, requirements, distinguishes necessities versus luxuries. • Very good signs of independent analysis, shows how each requirement fits together, labels components to identify key features and provides description	*60-69%* **Good *to* Very Good**
• Adequate coverage of issues with little exemplification. • Good effort. builds reasonable scale presentation of design. • Clear and covers the obvious points coherently, lists requirements of and considers clients needs, shows several possibilities of solutions based on requirements. • Some effort at use of independent judgement and external sources of information.	*56-59%* **Satisfactory *to* Good**
• Unclear coverage of issues but little exemplification, provides brief outline of approach to design problem. • Effort in covering important points mostly gathered from textbook and lecture notes. • Scattered efforts at using information gathered from external sources. mostly with a purpose and sometimes with no clear purpose. • Simplistic or slightly unstructured /confused presentation.	*50-55%* **Pass standard**
• No relevant material or very little relevant material. • Fails to present relevant points satisfactorily to answer the specific questions. • Confused presentation and unclear language. • Produces chunks of information from the sources with no signs of having assimilated the information.	*0-49%* **Unsuccessful**

*****End of Coursework Brief*****