الكلية الدولية للهندسة والإدارة
International College of Engineering & Management

ASSESSMENT BRIEF
SEMESTER 2 | 2025-26

Programme: **B.Eng. (Hons.) Fire Safety Engineering**

Module Code/Module Title: **OM2025 – Design for Fire Safety 1**

Module Tutor: **Mr Meet Panchal**

Assessment Title: **Fire Safety Design Report**

Date of Issue: 15 February 2026

Date of Submission: 29 March 2026

Date of Feedback: 19 April 2026

You are required to word process this assessment.	✓
You are required to submit this assessment electronically through the University Blackboard Turnitin.	✓
You should not reveal your name or any identity on the assignment submitted, failing to which your submission will be invalid.	✓

Instructions

- This paper contains **01 task**.
- This assessment is worth **40%** of the module mark.
- Complete the tasks fully with all possible evidence for achieving the learning outcome/s.

Please do not submit this assessment brief with your work.

Please note that all marks are provisional & subject to confirmation by the Module Assessment Board of the University of Lancashire, UK.

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ASSESSMENT COVER SHEET
SEMESTER 2 | 2025-26

Programme: **B. Eng. (Hons.) Fire Safety Engineering**

Module Code /Module Title: **OM2025 – Design for Fire Safety 1**

Assessment Title/ Number: **Fire Safety Design Report**

I confirm that this piece of work which I have submitted is all my own work and that references and quotations from both primary and secondary sources have been fully identified and properly acknowledged. **I am fully aware that plagiarism and collusion are academic offences.**
I also confirm that I have not used translation services or translation software in the production of this assignment.
Student's signature:

Date:

Please note the following penalties for late submission:

Date of Submission	Maximum Mark
1-7 calendar days late	40%
8-15 calendar days late	Marked as reassessment
More than 15 calendar days late	0%

Question/ Task	Max. Mark	Mark in Percentage
Task	90	
Overall format and references	10	
Total	**100**	

1st Marker	2nd Marker*	University Verification	External Examiner Initials
Name:	Name:	Name:	Name:
Date:	Date:	Date:	Date:

*2nd Marking on sample basis. Please note that all marks are provisional subject to confirmation by the Module Assessment Board of the University of Central Lancashire, UK**.**

Water-based fire protection systems are one of the essential systems installed in an occupancy which play very significant role in suppressing fires. Some of the systems are automatic system and some need manual intervention to suppress fires. In order to obtain water to supress fires, water-based fire protection systems are connected to fire pumps having different capicities. Water in the fire protection piping network runs at a very significant pressure to enable the systems to extinguish fires.

Task based on scenario

Assume you are working as a team of consultants* for a very reputed fire safety consultancy in Muscat, Oman. Recently your organisation has achieved a tender to design and verify water-based fire protection systems of the given occupancy (vide annex. B). As a part of the assignment, you are required to design water-based fire protection systems in the given occupancy layout (vide annex. B) considering the purpose of process area (vide annex. A). Moreover, after finalising the design, verify its appropriateness in accordance with national or international standards. While designing the water-based fire protection systems, reference values should be cited and design parameters should be supported by calculations, analysis, and relevant discussion in accordance with national or international standards#.

*Since you are required work as a team, maximum **4 members** per team should be decided within 15 days from the date of issue of the assignment. It is students' responsibility to select members of the team, inform the module tutor and work within a team with full co-operation.

#Essential standards: NFPA standards, British standards, BFPPR (77/2002) or Oman Building Code.

Sections of the report:	Marks
A **Introduction & objectives (maximum 400 words)** Importance of fire prevention and protection systems in buildings, fire and life safety objectives, classification of occupancy, applicable standards for the fire protection design.	25
B **Sprinkler system design and layout** i. Selection of sprinkler head, calculation of total number of sprinklers along with actual spacing (*S and L*), sprinkler piping network layout. ii. Remote area calculation, identification of remote area on the sprinkler network layout. iii. Total water flow and minimum water pressure for the proposed sprinkler system.	40
C **Fire pump room (maximum 300 words)** Identification of fire pump room on the given occupancy layout, pump selection and types of pumps to be installed, aggregate pump capacity.	25
D **Overall format and references**	10

Formatting and Referencing Guidelines:

- **Page setup**
  - Use A4 paper size settings and use normal margin.
  - Use MS Word to prepare the course work.

- **The section headings**
  - Title cases: Arial, font size 14, bold, left aligned.

- **Body text and sub-headings**
  - Sub-headings: Arial, font size 12, bold, single-spaced.
  - Body text: Arial, font size 12, single-spaced. Text must be 'justified' aligned. Leave one blank line between paragraphs.
  - The pages should be numbered consecutively, without any type of border.

- **Diagram/Image/Graph**
  - Any kind image, figure or diagram taken/outsourced, must be cited with caption.
  - Graphs should be prepared using MS Excel or any other application however image of handmade, scanned graphs are not acceptable.

- **Referencing**
  - Referencing is a system that allows you to acknowledge the contributions of others in your writing and it emphasizes the authenticity of the source of your information. Whenever you use ANY words, ideas or information from ANY source in your assignments, you must reference those sources. This means, if you quote the exact words of an author, if you paraphrase or reconstruct their words or if you summaries their ideas, you must provide a reference.
  - **Note**: In-text citation is required; giving a bibliography/list of references at the end of work without citation in-text is not considered as correct method of referencing and mark will be deducted accordingly.
  - **All academic writing must be cited and referenced, non-referenced work/write-up will be considered as plagiarism.**
  - Follow the **Harvard system** of referencing throughout your text.

Notes:

- This is a **GROUP** **assignment and has to be submitted through BlackBoard without revealing your personal identity**.
- Approximate words count is **1500 ± 10% words**.
- Your report should provide **necessary citations and references**. Referencing should be done in Harvard Referencing System. **Cross referencing is to be followed**, wherever needed, failing to which **mark will be deducted accordingly**.
- It is your responsibility to ensure that your work is neatly and accurately presented.

Marking/Feedback Criteria

The course work will be assessed and graded based on the marking criteria given below

	LEVEL 4, 5 & 6
EXCEPTIONAL **(90-100%)**	Written work is directly relevant to the title. Knowledge and understanding is comprehensive in both breadth and depth. Student demonstrates an exceptional ability to contextualise, to critically appreciate concepts and their inter-relationship, and/or to relate theory with evidence. Exceptional ability to apply, in the right measure, the skills necessary to achieve a desired outcome. Evidence of very extensive, if not exhaustive reading and study beyond the course content. Clear evidence of independent thought. The presentation is highly sophisticated, fluent and accurate and in an appropriate format. The material is presented in a focused way, so as to help sustain the argument. Citation and referencing are impeccable. The work may be as good, if not better, than you imagine a professional tutor could write, and is possibly of publishable quality.
FIRST **(70-89%)**	Written work is directly relevant to the title. Knowledge and understanding is comprehensive in both breadth and depth. Student demonstrates a clear ability to contextualise, to critically appreciate concepts and their inter-relationship, and/or to relate theory with evidence. Outstanding ability to apply, in the right measure, the skills necessary to achieve a desired outcome. Evidence of extensive reading and study beyond the course content. Clear evidence of independent thought. The presentation is highly sophisticated, fluent and accurate and in an appropriate format. The material is presented in a focused way, so as to help sustain the argument. Citation and referencing are impeccable.
UPPER SECOND **(60-69%)**	Written work is directly relevant to the title. The knowledge-base is up-to-date and relevant, but may also be broad or deep. Work reflects a thorough grasp of concepts and of the inter-relationship, and a significant ability to relate theory to practice. The presentation is very good and in an appropriate format, the material generally well-focused, reflecting a high degree of literacy. Arguments may sometimes be outstanding and reflective of genuine independent thought but are not always consistently at that level. Material is very well presented, and citation and referencing are very good.
LOWER SECOND **(50-59%)**	Written work is directly relevant to the title. Arguments may be generally relevant but not necessarily comprehensive. The student displays an awareness of what concepts are, but the ability to conceptualise, and/or to relate theory to evidence, is clearly limited. Frequent use of assertion rather than argument. Grammar and spelling sound, but perhaps with occasional lapses. Material is well presented and in an appropriate format. Citation and referencing are generally good but may contain some errors.

	LEVEL 4, 5 & 6
THIRD **(40-49%)**	Written work is predominantly relevant to the title. Knowledge is adequate but limited and/or superficial, with a tendency to inaccuracy. Limited awareness of concepts. Limited ability to contextualise, and to relate theory to evidence. Frequently, evidence (which may be accurate) is deployed superficially with lack of focus. Almost always offers description/assertion rather than argument. Grammar may be poor, or the linkage between paragraphs may be weak. Competent presentation and an acceptable format, although deficiencies are clearly evident. Citation and referencing are present but may contain quite a few errors.
COMPENSATABLE FAIL **(35-39%)**	At least 45% of material presented is relevant but there may be limited reference to the question. A generally poor but compensatable answer with extensive errors and omissions, or a substantial answer on the general topic in which the specific, central question is misinterpreted or avoided, or a very good essay in note form. Presentation is poor and sometimes inarticulate. Little evidence of appropriate reading but citation and referencing must be present, although there may be a substantial number of errors. (Note – absence of citation and referencing at Level 3 must be regarded as a clear failure and must be awarded <30%))..
UNCOMPENSATABLE FAIL **(30-34%)**	Presented work is relevant but there may be limited reference to the question. A generally poor but compensatable answer with extensive errors and omissions, or a substantial answer on the general topic in which the specific, central question is misinterpreted or avoided, or a very good essay in note form. Presentation is poor and sometimes inarticulate. Little evidence of appropriate reading but citation and referencing must be present, there may be a substantial number of errors. (Note – absence of citation and referencing at Level 3 must be regarded as a clear failure and must be awarded <30%).
FAIL **(20-29%)**	Less than 40% of material presented is relevant. . A generally weak answer with extensive errors and omissions, or a quite substantial answer on the general topic in which the specific, central question is misinterpreted or avoided. Limited understanding demonstrated. Presentation is poor, often inarticulate and sometimes incomprehensible. Very limited evidence of background reading; citation and referencing may be absent
FAIL **(10-19%)**	An exceptionally poor answer with extensive errors and omissions and limited evidence of relevant knowledge, or a good essay in note form. Presentation is very poor, often inarticulate and incomprehensible. No evidence of background reading.
FAIL **(0-9%)**	Answer not attempted, or limited to only a few paragraphs, or of little or no relevance to the general topic of the question. Zero is reserved for failure to attempt an answer, or no, or late submission.

Penalties for Over-length Assignments

- Assignment briefs will include clear instructions about word counts. Students are expected to adhere to the word count requirements for each assessment. If students exceed these word count limits, they may receive a reduction in marks as follows.

- For written assignments that exceed a word count limit by
  - ❖ 0-10% - no penalty
  - ❖ +>10.1% - 20% : 2.5% reduction in mark
  - ❖ +>20.1% - 30% : 5% reduction in mark
  - ❖ +>30.1% - 40% : 7.5% reduction in mark
  - ❖ +>40.1% - 50% : 10% reduction in mark
  - ❖ +>50.1% - 60% : 12.5% reduction in mark
  - ❖ +>60.1% - 70% : 15% reduction in mark
  - ❖ +>70.1% - 80% : 17.5% reduction in mark
  - ❖ +>80.1% - 90% : 20% reduction in mark
  - ❖ +>90.1% - 100% : 22.5% reduction in mark
  - ❖ >100%: 25% reduction in mark but no student will fail an assessment because of a penalty for exceeding the word limit.

Academic Misconduct

Unfair means (which includes cheating, plagiarism, collusion, re- presentation or using Artificial Intelligence to prepare assignments).

- Cheating is any deliberate attempt to deceive and covers a range of offences described in the ICEM Policy on Unfair Means to Enhance Performance. Cheating may include any technique intentionally misused by students in the submitted reports such as intended misuse of quotation marks, using hidden quotes, hidden characters and replaced characters.
- Plagiarism describes copying from the works of another person without suitably attributing the published or unpublished works of others.
- Collusion is an attempt to deceive the examiners by concealing the true authorship of the student's work by copying, or imitating another student's work in detail. This includes copying other student's consent with his/her consent. It also includes when 2 or more students divide the elements of an assignment amongst themselves and copy one another's answers.
- Using technological aids and Artificial Intelligence (AI) tools, without specific authorization is considered academic misconduct.
- Re-presentation is an attempt to gain credit twice for the same piece of work.
- Fabrication is making up research data or results and reporting the same.
- Falsification is manipulating the research data or results such that inaccurate information is reported.

Academic penalty:

Category 1: Poor Academic Practice: occurs where a student has attempted but failed to adopt good academic practice. It is normally the result of a failure to understand the required protocols and is most likely to occur at an early stage in the course and form a relatively small part of the student's assessed work.

- Examples of poor academic practice include inadequate referencing, omitting to include quotation marks or gaps in the reference list. The module tutors will apply academic judgment in determining whether poor academic practice or academic misconduct has occurred.

- Where poor academic practice is identified, the student will be invited to a meeting with the module tutor who will explain the nature of the concern.

- The mark for the element of assessment may be reduced (by 10% of the maximum mark)

- The student will be informed that if poor academic practice occurs in the future, it will be dealt as academic misconduct and associated penalties will be imposed.

Category 2: Academic Misconduct: will normally be defined as a first instance of academic misconduct. Where there is evidence of academic misconduct in multiple assignments that were submitted at the same time within the same cycle of assessment(s), this will normally be treated as a single occurrence.

- Examples of Category 2 academic misconduct include, without limitation: Plagiarism, Re-presentation of work, Collusion, Cheating/examination malpractice, Repeat instances of poor academic practice.

- Two options for **penalty**:
  - ➢ the student gets capped at the component level following reassessment – GA Flag, Or
  - ➢ the student gets capped at the module level following reassessment – GB Flag

Category 3: Academic Misconduct: will normally be defined as a repeat offence of academic misconduct in any form, where the student has previously incurred a penalty and a warning for academic misconduct, and where the repeat instance occurs in a subsequent cycle of assessment(s).

- **Penalty**: Students module mark is 0, with no reassessment opportunity – G2 Flag

Category 4: Gross Academic Misconduct: will normally be defined as gross academic misconduct where a clear intent to deceive and gain an unfair academic advantage can be established.

- Examples of Category 4 gross academic misconduct include, without limitation: A repeat instance of Category 3 academic misconduct in any form, Impersonation, Commissioning of assessed work, Fabrication or falsification of data.
- the student should be asked to provide evidence that shows how they prepared for and wrote the assessed work e.g. copies of drafts or notes; and/or
- the student should be asked questions about the submitted work during the meeting to give the student the opportunity to demonstrate appropriate knowledge of the subject matter and that they understand the content of the work.
- **Penalty**: Level failed and a requirement to withdraw from the programme or Expulsion from the College/Affiliate University on a permanent basis.

Artificial Intelligence Guidance

As per University of Lancashire Guidance for students on the use of Artificial Intelligence in assessment, using AI under the tutor's guidance will be acceptable in certain situations but students need to ensure that they comply with University regulations on Academic Integrity. Below are the principles to be followed by students to avoid breaching academic misconduct regulations through using AI:

- Ensure the use of the AI tool is in line with the assessment brief and any further advice from the tutor setting the assignment.
- Do not rely solely on AI tools to complete assignments. Use AI tools to enhance your work, not as a replacement for it.
- Acknowledge the extent to which AI has been used as part of referencing their sources, clarifying the contribution of AI to make clear what is their own work. Students have to cite AI tool they used (such as ChatGPT) and describe how they used it.
- Avoid assuming that AI responses are always accurate. AI-generated information may sometimes be inaccurate or misleading.
- Keep drafts to evidence the thinking and development of the work if requested.
- Students may be asked to respond to questions to test their knowledge of their assessed work.
- Failure to follow this advice may lead to allegations of academic misconduct and will impact students' ability to defend themselves.