



الكلية الدولية للهندسة والإدارة
International College of
Engineering & Management

PROGRAMME HANDBOOK



FIRE SAFETY ENGINEERING

ACADEMIC YEAR
(2023 / 2024)

Please read this Programme Handbook in conjunction with the College's **Student Handbook**.

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Welcome to the Programme

The International College of Engineering & Management warmly welcomes students who are new to college and are taking the first step towards a career in fire safety engineering or fire safety management. I am delighted that you have selected one of the best programme in GCC.

This handbook is intended to be a source of information on the academic and administrative aspects of the first four years of the programme. You will find information of the programme modules, attendance regulations, examination and assessment proecudures, as well as information on giving and receiving feedback to staff.

Please read this handbook carefully and make sure that you understand what is required of you. If you find that there are points you do not understand or wish to discuss further, do not hesitate to contact the Head of the Department.

We value your participation and your feedback. We hope you will contribute to the department, whilst making full use of the resources at your disposal to develop your potential.

Finally, it is worth keeping this handbook as it contains information you may wish to refer to throughout the programme.

Dr. M Shahnawaz Khan

Head of the Department

ICEM Mission, Vision and Values

Vision

To be an internationally recognized institution of higher and professional education, research and community engagement.

Mission

To provide high quality education that prepares students in the areas of engineering and management for national and international markets through innovation and research.

Values

1. Excellence.
2. Integrity.
3. Professionalism.
4. Equality.
5. Transparency.

Graduate Attributes

1. Knowledge of engineering and management disciplines

Graduates have comprehensive knowledge and understanding of their field of specialization.

2. Critical, Analytical and Creative thinking

Graduates demonstrate an ability to think critically and solve problems innovatively.

3. Leadership and teamwork

Graduates can play constructive leadership roles in their careers and contribute in a collaborative manner to achieve common goals.

4. Communication skills

Graduates convey ideas and information effectively to a range of audiences for a variety of purposes.

5. Ethics and Professionalism

Graduates use their skills to act in a professional and ethical way and are aware of the importance of ethical standards on personal and social levels.

6. Lifelong Learning, Research and Innovation

Graduates have a commitment to continue research based inspired independent learning.

7. Global competitiveness

Graduates have skills that help them to be a competent in the global job market and to be

productive member of their work teams and society.

8. Technological Literacy

Graduates are able to locate, manage, integrate and convey information using the appropriate resources, tools and strategies.

1. General Information

1.1. Programme Learning Outcomes

A. Knowledge and Understanding

- A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety engineering and their application in the workplace
- A2. Apply the fundamental concepts of fire safety engineering to enable the generation and evaluation of alternative solutions to solve related design problems;
- A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire engineered project solutions with respect to all applicable managerial, legal and social parameters
- A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety engineering
- A5. Demonstrate the capability for independent and lifelong learning in a professional career

B. Subject-specific skills

- B1. Analyse fire risk and protection needs for a range of applications, evaluate a range of strategies and implement solutions to meet these needs.
- B2. Evaluate whether design solutions integrate social, legal, engineering and technical requirements;
- B3. Evaluate managerial responsibility, including operational, financial and legal considerations in private industry and the parallel public sector;
- B4. Formulate and produce creative and innovative technical solutions to fire safety problems by applying design and engineering principles to real situations.
- B5. Independently plan and execute a research project in fire safety engineering.

C. Thinking Skills

- C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise
- C2. Identify and analyse broadly defined problems, evaluate possible optional strategies, design and optimise appropriate solutions.
- C3. Select and apply appropriate problem solution skills in the processes of analysis, synthesis, evaluation and summarisation of ideas and information and the proposal of solutions;
- C4. Select, collate, interpret and evaluate information from a range of sources.

D. Other skills relevant to employability and personal development

D1. Research and evaluate a wide range of sources of information from text books, journals, the media, CD Rom, newspapers, internet, technical indexes, catalogues, Standards, case law.

D2. Complete reports in a succinct and coherent format, and conduct and present individual research projects.

D3. Work independently and within a team.

D4. Communicate appropriately to a variety of audiences using a range of formats and approaches.

D5. Identify and work towards targets for personal, academic and professional development.

D6. Use IT literacy including Computational Fluid Dynamics

1.2. Programme Team

The programme team consists of the following:

No.	Staff Name	Role	Room	Email	Phone
1	Dr M Shahnawaz Khan	HoD	M22	shahnawaz@icem.edu.om	2451 2070
2	Dr Javad Hashempour	ModuleTutors	M21	javad@icem.edu.om	2451 2072
3	Dr. Sohaib Abujayyab			sohaib@icem.edu.om	
4	Mr. Meet Panchal			meet@icem.edu.om	
5	Mr. Amal S. George			amal.g@icem.edu.om	
6	Ms. Sabra Al Shukairi			sabra@icem.edu.om	
7	Mr. Sivi Varghese			sivi@icem.edu.om	

1.3. Expertise of staff

Dr. M Shahnawaz Khan

Qualifications: Post Doctorate and Ph.D. in Marine Biotechnology/Nanotechnology from National Sun Yat-Sen University, Taiwan. Bachelors and Master of Science in Industrial Chemistry from AMU, India.

Experiences: Six years of academic teaching experience.

Research Interest: Fire and Smoke Control and Fire Toxicity.

Mr. Meet Panchal

Qualifications: Post Diploma in Industrial Safety from Mahatma Gandhi Labor Institute, India.

Master of Science in Environmental Science and Technology from Sardar Patel University in India. Bachelor in Fire and Safety from Gujarat University, India.

Experiences: Eight years of academic teaching experience.

Research Interest: Pedestrian Movement in Emergency, Life Safety in Buildings, Flame Spread and Combustion Product Assessment, Human Factors in Occupational Safety and Environment Pollution Assessment and Modelling.

Dr. Javad Hashempour

Qualifications: M.Sc. from the University of Manchester, UK and Ph.D. in Mechanical Engineering from the University of Southern Queensland, Australia.

Experiences: Four years of academic teaching experience

Research Interest: Wildland-Urban Interface Fires; Advanced Fire Dynamic; Computational Fire Dynamic; Structure Fires; Machine Learning based Fire Analysis; Material Flammability.

Mrs. Sabra Al Shukairi

Qualifications: Master of Science in Fire Safety Engineering from University of Ulster. Bachelor of Science in Fire Safety Engineering from University of Central Lancashire, United Kingdom.

Experiences: Four years of academic teaching experience.

Research Interest: Smoke control, Fire dynamics, and Human Behaviour in Fire.

Mr. Amal S. George

Qualifications: Master of Technology (M.Tech.) in Industrial Safety (Health, Safety and Environment Management Specialization) from Cochin University of Science and Technology, India. Bachelor of Technology (B.Tech.) in Civil Engineering from University of Calicut, India.

Experiences: Five years of academic teaching experience and two and half years of industrial experience as HSE Engineer and Civil Engineer.

Research Interest: Human Factors, Hazard Identification, Hazard Analysis, Structural Fire Safety.

Mr. Sivi Varghese

Qualifications: Master of Engineering in Industrial Safety Engineering from Anna University, Chennai, India, and the Bachelor of Engineering in Mechanical Engineering from Anna University, Chennai, India.

Experiences: Eight years of technical teaching experience in advanced diploma and degree level. Six months of construction industrial experience.

Research Interests: Pool Fire Modeling, Dynamics of Pool Fires, Fire Behaviour of Alternative fuels.

Dr. Sohaib Abujayyab

Qualifications: PhD in Geo-Information Science, Civil Engineering school, Universiti Sains Malaysia, Pinang, Malaysia.

Master Degree in Geography, Geographic information systems, Islamic University-Gaza, Palestine.

1.4. Communication

The college expects students to use their college email address and check regularly for messages from staff. Students sending email messages from other addresses risk being filtered out as potential spam and discarded unread. Students are automatically allocated UCLan as an email address. They can use their email and password to login to e-mail and Blackboard account.

1.5. External Examiner

An External Examiner is appointed to your programme who helps to ensure that the standards of your programme are comparable to those provided at other higher education institutions in the UK. The External Examiner is responsible for ensuring that standards and comparability are maintained, assuring fairness in the application and implementation of assessment processes and procedures in accordance with the approved programme/course regulations, and for judging whether students have fulfilled the learning outcomes of courses to a satisfactory standard.

1.6. Semester Timetable

A timetable will be available at the beginning of each academic semester, through the Registration Department. It will be published on the noticeboards and the college website.

1.7. Attendance Requirements

You are required to attend all timetabled learning activities for each module. Notification of illness or exceptional requests for leave of absence must be made to your Module Tutor.

1.8. Class Attendance Policy

All students are expected to attend all regularly scheduled classes.

1. Students are expected to participate fully in their programme of study, engage actively with learning opportunities and take responsibility for their learning.
2. Students are expected to attend and participate in all scheduled sessions and activities.
3. Attendance at scheduled classes is monitored and recorded through the SIS system.
4. Persistent failure of a student to attend classes may result in modules failure or termination of registration. Students are liable for tuition fee debts for periods during which they were registered.
5. All modules require a specific attendance level in order to meet the award requirements which are described in the Programme Specification.
6. Students are expected to notify Module Tutors of absence in advance or as soon as possible following absence.
7. Students get email notifications on a daily basis.

1.8.1. Students Absences

1. The first warning will be sent to student through SIS system to his/her email if he/she is absent from class for more than 10% of the total lecture hours. The Personal Tutor will also be notified by email.
2. The second warning will be sent to student via email if he/she misses more than 20% of the module total lecture hours. The Personal Tutor, HOD and Counselor will be also notified.
3. Parents/guardians and Sponsors may be provided with a report about their student's attendance upon their request.
4. In the event the student misses 25% of the module total lecture hours, the student should submit a request to the module tutor allowing him to sit the exam and explaining the reason for the absences. The request should be supported by evidence. The module tutor and the head of department may accept or reject the request based on the reasons and supporting evidence.
5. In the event the student misses more than 50% of the module total lecture hours without excuses, the student will not be allowed to sit the final exam or to submit the coursework which may lead to module failure. She/ He must spare the module.
6. The module tutor shall not give substitute assessments to students who miss classes.

1.8.2. Excused Absences

Excused absence shall be filed by the students within the first 2 days of reporting back and submit the same to the respective HoD who will submit it to the responsible department (Admission and Registration) for further consideration:

Absences based on the following circumstances will be considered as valid excuse by the responsible department:

1. **Medical Excuse:** A student may be excused from his/her absence provided that a signed and stamped medical certificate is presented. The medical certificate must state the nature of the visit to the hospital/clinic, including the number of days of leave recommended.
2. **Emergency Excuse.** A student may be excused from his/her absence provided sufficient evidence/document is presented in cases of emergencies such as family emergency, deaths in the family, any accidents incurred by the student or family member and any other circumstances as approved by the Office of the Assistant Dean for Student Affairs (ADSAR).

1.8. Expected hours of study

A standard module size is 20 credits and equals 200 notional learning hours. Students can typically expect 4 hours of class contact per module per week which equates to approximately 60 hours contact per module with the remainder of the 200 learning hours taken up with self-study in the form of research, revision and assessment.

1.9. Classification of Awards

All higher education programs offered at ICEM are designed to lead to Bachelors (Honours) degree in the following disciplines. Duration of study for this program is four years. To get a degree with honours you must pass the equivalent of 24 standard modules - six at each Level. However, if you decide to leave the programme at some point before completing the four years, and you have successfully completed all the modules, you can be awarded:

1. At the end of the first year a Certificate of Higher Education in Fire Safety Engineering.
2. At the end of the second year a Diploma of Higher Education in Fire Safety Engineering.
3. At the end of the third year an Advanced Diploma in Fire Safety Engineering.

Classification of award is based on APM (Average Percentage Mark) calculation.

APM from 70 - 100%	First Class Honours
APM from 60 - 69.99%	Upper Second Class Honours
APM from 50 - 59.99%	Lower Second Class Honours
APM from 40 - 49.99%	Third Class Honours

1.10. Industrial Placement

Developing industrial skills is an important part of a student's lifetime at the College. Graduate recruiters look for evidence of what skills students have developed and how they can apply them to the world of work.

Students have the option of taking two industry-based modules, namely the Industrial Experience Module (OM1040) and the Industrial Placement Module (OM3000/Eidaad) Students who successfully complete Year 2 are eligible to take the optional eight-weeks Industrial Experience Module (OM1040) during the summer break whereas students can take the optional one-year industrial placement module (OM3000/Eidaad) on completion of Year 3.

The Industrial Placement opportunity is designed to give students the opportunity to gain further practical experience in an industrial and commercial environment. The College has close contact with local companies in different industries. If you wish to take this opportunity, you may contact your Personal Tutor/ Course Leader for further details.

2. Student Support, Guidance and Conduct

2.1. Student Support and Guidance

ICEM students can receive full support and guidance from a variety of resources, including their module tutor, Personal Tutor/Academic Advisor, Head of Departments and the Student Support Services Department

2.1.1. Module Tutor and Head of the Department

For module specific queries, students should always seek for clarification from a member of the respective module teaching staff (e.g., Module Tutor) in the first instance. Module Tutors are much more likely to have detailed knowledge of the issues in question and can offer professional advice immediately.

Head of the Department is responsible for ensuring that students have fulfilled the learning outcomes of programme to a satisfactory standard and have received academic and non-academic support when they need them.

2.1.2. Personal Tutor/Academic Advisor

The Personal Tutor/Academic Advisor System is an initiative set in place to help you not only settle into life in Higher Education but also to better understand what is expected from you as a student at the College. Every student is given a Personal Tutor/Academic Advisor from within the department during the induction period. Your Personal Tutor/Academic Advisor will be your first point of contact if you wish to discuss any problems or issues (academic or not) which you are faced with while at the college.

2.1.3. Student Support Services Department

The Student Support Services Department provides academic and non-academic support for students and is located on the ground floor of the main building which is open from 08.00am until 04.00pm Sunday to Wednesday, 08:00am until 03:00pm on Thursdays.

The Student Support Services Department oversees various activities organized within the College working closely with other departments, such as the college clinic, the Student Counsellor Office and Career Guidance Department to achieve both academic and psychological stability. By providing assistance and guidance, the SSSD helps students become active members of the college community and develop their interpersonal skills.

Also, to provide students with the practical skills and professionalism required by the labor market to be available after graduation from the College.

2.1.4. Student Counsellor

In some cases, students may require specialized counselling to ensure they get the most of their time at ICEM. The SSSD is committed to offering the necessary support and providing a safe space for students to explore and address any concerns they may have. These concerns might include:

- Relationship or family problems
- Anxiety or depression
- Fear of failure

The Student Counsellor understands that instant solutions may not always be possible, but they are here to provide a listening ear and assist in raising your self-awareness and exploring various possibilities.

2.1.5. Study Support

A library containing copies of relevant books, periodicals and non-book teaching and learning materials is available. For registered students, all the module texts and recommended reading material listed in the module bibliographies are available together with copies of relevant UCLan publications.

ICEM has a cooperation with Sultan Qaboos University Main Library. Students are allowed to visit the library and use the resources inside the library but they are not allowed to borrow books from SQU Main Library.

Registered students are also entitled to access the on-line library services provided by the affiliate university. This access enables students to view the library catalogue and use the on-line journal materials which are available to all university students.

Click here for [UCLan e-Library](#)

2.1.6. IT Support

The College has fully equipped information technology suites with full Internet access. The Department of Information Technology collaborates closely with the other departments to provide a wide range of supportive services to students in all activities, whether on or off campus. The department offers a variety of technical support services, including account creation, password changes and resets, software installation, network problem resolution, printer and lab support, and more.

2.2. Student Voice

You can play an important part in the process of improving the quality of your student experience through the feedback you give.

Different communication channels are developed to support you in voicing your opinion, provide on-going advice and support, and encourage your involvement in all feedback opportunities. You will be requested to complete various questionnaires throughout the academic year for all services provided, including your feedback on academic staff.

2.2.1. Student Representatives

The representatives are students who are elected by their fellow students in order to voice any issues concerning the course. They represent the students of their programme at the Student Staff Liaison Committee meetings which normally take place once each semester. One student from each year of study, from each programme will be elected for this role.

Student Representatives should help students - by making sure that their suggestions, observations, views, opinions and concerns reach college staff who can help. Also, they should help staff by informing students about actions, decisions and plans that will affect students and their programme.

2.2.2. Student Staff Liaison Committee Meetings (SSLC)

The purpose of SSLC meetings is to provide the opportunity for student representatives to give feedback to staff about the course, the overall student experience and to inform developments which will improve future modules/programmes. These meetings are normally scheduled once per semester. The minutes of the meetings will be read by the College Management Team and sent to UClan. At least once in the Academic Year, a member of staff from UClan will attend the SSLC meeting for your programme.

2.2.3. Students Advisory Council

The Students Advisory Council is a student-led, democratic council and exists to make your student experience better for you while studying at the College. Students shall elect a group among them at the beginning of the academic year. The student group shall elect a chair and a vice-chair among its members. The SAC shall perform the following:

1. Identify the needs of students and pinpoint student issues.
2. Voice the views of those represented.
3. Take up issues with college staff and report outcomes back to students.
4. Be familiar with relevant college policies, rules and regulations.
5. Propose activities during academic year with the budget required.

2.2.4. Feedback through Personal Tutors/Academic Advisor and Module Tutors

Your Module Tutor and Personal Tutor/ Academic Advisor will listen to your problem and then advise you as best as they can on how to resolve it. As they are academic experts, they might not be able to assist you with all your personal matters but will definitely assist you in setting up an appointment with someone else who is better equipped to help you, such as Student Support Services officers, Student Counsellor etc.

For any module related queries, students can discuss directly with module tutors. This can ensure immediate attention to students' concerns and actions can be taken where necessary.

2.2.5. Student Feedback

You can play an important part in the process of improving the quality of this programme through the feedback you give. Module Evaluation Questionnaires and the Student Satisfaction Survey are tools for gathering feedback. We would encourage you to do so, it is only with your assistance that we can 'improve the margins' and improve student life.

2.2.6. Student Conduct

You will be expected to abide by the Code of Conduct for Students in the College. The College expects you to behave in a respectful manner demonstrated by using appropriate language in class and switching mobile phones / other devices off prior to attending classes.

You must show respect for the college site and college property. You must behave in a way that will not cause damage to the college site or to college property and you should help to keep the College clean and tidy at all times. If you see any problems concerning the site or college property, you should report these to a member of the college staff. If your behaviour is considered unacceptable, any member of academic staff is able to issue an informal oral warning and the College will support staff by invoking formal procedures where necessary. You can read more about college expectations in the regulations for the Conduct of Students.

2.3. Students' Violation

The following cases are considered as student violations that require disciplinary measures against their violators:

1. cheating in exams or attempt to cheat or breach the order of the exam and compromising the scientific faith
2. disorder during the lectures and practical lessons
3. try to disrupt extra- curricular activities and events of the College
4. assaulting any member of the college community or threaten him or show disrespect towards him.
5. give incorrect information or statements on the official papers, or falsification of official documents relating to the College, or obtaining it illegally.
6. the penalties start from forewarning up to the final disciplinary displacement from the College. (Refer to ICEM Student Handbook).

3. Programme Structure – B.Eng (Honours) Fire Engineering

3.1. Programme Information

Year 1 (full time) is referred to as Level 4.

Year 2 (full time) is referred to as Level 5.

Year 3 (full time) is referred to as Level 5 & 6.

Year 4 (full time) is referred to as Level 6.

To get a degree with Honours you must pass the equivalent of 24 standard modules. Full time students normally study 6 modules per year - some modules may last all year, whilst other modules may only last for one semester.

Each module is a self-contained block of learning with defined aims, learning outcomes and assessment. A standard module is worth 20 credits. It equates to the learning activity expected from one sixth of a full-time undergraduate year. The module code and title can be seen in the table below and the Module Information Package (MIP) for these modules can be found on Blackboard.

Year 1 (ICEM)	Year 2 (ICEM)
OM1014: Command and Management 1 OM1015: Health and Safety Management OM1023: Fundamentals of Fire Fighting OM1024: Introduction to Fire Safety and Law OM1055: Personal and Professional Development 1 OM1026: Science and Mathematics for Fire Engineering	OM2029: Fire Science OM2018: Fire Engineering Science OM2074: Safety in Oil and Gas Industries OM2024: Mathematics 1 OM2025: Design for Fire Safety 1 OM2094: Professional Development and Entrepreneurship OM1040: Industrial Experience (Option)
Year 3 (ICEM)	Year 4
OM3022: Research Methods and Statistics OM2055: Personal and Professional Development 2 OM2023: Fire Safety in Buildings OM3011: Disaster Mitigation and Emergency Management OM3025: Design for Fire Safety 2 OM3024: Fire Modelling and Smoke Control in Buildings OM3000: Industrial Placement (Option)	FV3001: Enclosure Fire Dynamics FV3002: Fire Protection Engineering FV3004: Fire Investigation FV3102: Probabilistic Risk Analysis FV3201: Engineering Design Project FV3900: Engineering Dissertation

3.2. Module Aims & Assessment Strategy

1. OM1014 Command & Management 1

Aim: To introduce the student to the Command, Leadership and Management concepts of a first level supervisor in operational management in a fire service environment.

Assessment strategy: 40% Coursework, 60% Exam

2. OM1015 Health & Safety Management

Aim: To provide students with knowledge, understanding and skills relating to the principles and processes necessary for the management of occupational health and safety in the workplace in line with applicable legislation.

Assessment strategy: 40% Coursework, 60% Exam

3. OM1023 Fundamentals of Fire Fighting

Aim: To build on the theoretical input from other fire related modules by providing the student with the practical knowledge and training to enable them to understand the role of a professional firefighter, following further training, experience and competency based assessment.

Assessment strategy: 40% Coursework, 60% Exam

4. OM1024 Introduction to Fire Safety & Law

Aim: To apply fire safety principles based on an understanding of the phenomena and effects of fire and of the behaviour of people to fire, to protect people, property and the environment from the destructive effects of fire.

Assessment strategy: 40% Coursework, 60% Exam

5. OM1026 Science & Mathematics for Fire Engineering

Aim: To provide the underpinning scientific and mathematical knowledge and understanding required for study in other course modules and to introduce the student to a scientific approach in investigations.

Assessment strategy: 40% Coursework, 60% Exam

6. OM1055 Personal & Professional Development 1

Aim: To develop oral and written academic English Language skills in addition to increasing proficiency in a range of study skills, enquiry techniques and research skills required for further study in a technical subject area.

Assessment strategy: 60% Coursework , 40% Phase test

7. OM1040 Industrial Placement (Optional)

8. OM2018 Fire Engineering Science

Aim: To provide students with a thorough understanding of fire characteristics, Fire dynamics, Fire load & toxicity of fire products, Principles and types of smoke detectors & heat detectors and fire suppression.

Assessment strategy: 40% Coursework, 60% Exam

9. OM2074 Safety in Oil & Gas Industries

Aim: To understand health, safety and environmental concerns in the hydrocarbon sector and apply appropriate HSE management systems to improve performance.

Assessment strategy: 40% Coursework, 60% Exam

10. OM2024 Mathematics 1

Aim: To provide students with the ability to confidently recognise and handle the essential core of mathematical methods for complementary and further study of engineering.

Assessment strategy: 40% Coursework, 60% Exam

11. OM2025 Design for Fire Safety 1

Aim: To gain knowledge about enclosed fire dynamics, fire propagation. Students will understand interactive experience using commercial computational packages in the development and use of design applications for fire safety design engineering and construction projects.

Assessment strategy: 40% Coursework, 60% Exam

12. OM2029 Fire Science

Aim: To build on material at level 4 to provide students with an appropriate chemical and scientific background for further studies in fire safety.

Assessment strategy: 40% Coursework, 60% Exam

13. OM2055 Personal & Professional Development 2

Aim: To provide a learning environment where students can increase their ability to communicate effectively.

Assessment strategy: 40% Examination, 60% Coursework

14. OM3022 Research Methods and Statistics

Aim: To extend students' knowledge and understanding of advanced mathematical

principles to apply for complex problems in engineering and management. Also, apply the methods of conducting research to support their effort to complete their final year Dissertation. Students will work individually in developing their research proposal.

Assessment strategy: 40% Coursework, 60% Exam

15. OM2094 Professional Development and Entrepreneurship

Aim: To build on the work of previous modules in developing the communicative abilities of students. This will be achieved by refining linguistic proficiency to an advanced stage.

Assessment strategy: 30% Short Report/ Essay, 70% Portfolio

17. OM2023 Fire Safety in Buildings

Aim: To build on students' knowledge, understanding and skills relating to the principles, processes and legislation involved in fire inspection of mixed occupancy premises.

Assessment strategy: 40% Fire inspection report, 60% Group Project Report

18. OM3025 Design for Fire Safety 2

Aim: To gain interactive experience in the development of scientific and analytical approaches to the solution of fire safety engineering design problems as they relate to building and structural design.

Assessment strategy: 40% Coursework, 60% Exam

19. OM3011 Disaster Mitigation & Emergency Management

Aim: To provide an introduction to the management of natural, manmade and accidental disasters including fire, flooding, explosive and environmental destruction.

Assessment strategy: 40% Coursework, 60% Exam

20. OM3024 Fire Modelling and Smoke Control in Buildings

Aim: To deal with the interaction of fire and smoke with buildings and its occupants and develops approaches to minimise the effects of this. Both theoretical studies and the interpretation of fire and smoke models are used to develop management strategies to minimise the impact of fires in enclosed environments on people and in the design of the interiors of structures.

Assessment strategy: 40% Coursework, 60% Exam

21. FV3001 Enclosure Fire Dynamics

Aim: To build upon and develop a deeper technical foundation of the fire-science skills and knowledge gained at Level 4 and Level 5 to establish the students' competence in the understanding of enclosure fires and the dominant mechanisms controlling enclosure fires.

Assessment strategy: 40% Coursework, 60% Exam

22. FV3002 Fire Protection Engineering

Aim: To look at the principles of fire protection, standard test procedures and methods of solving fire safety problems using active and passive fire safety systems.

Assessment strategy: 40% Coursework, 60% Exam

23. FV3004 Fire Investigation

Aim: To develop student's ability to undertake a scientific fire investigation of a fire scene while ensuring the requirements with respect to safety, scene preservation, evidence collection and presentation are fully achieved.

Assessment strategy: 40% Coursework, 60% Exam

24. FV3201 Engineering Design Project

Aim: To provide students with the opportunity to extend and demonstrate engineering design skills both as team members and as individuals.

Assessment strategy: 50% Coursework, 50% Coursework

25. FV3102 Probabilistic Risk Analysis

Aim: To provide the students with opportunity to develop their academic study of risk analysis techniques and encourages the student to employ quantitative methods.

Assessment strategy: 80% Coursework, 20% Coursework

26. FV3900 Engineering Dissertation

Aim: To provide the students with the opportunity to develop independent research and evaluation skills. On an individual basis, the student will be required to carry out an in-depth study involving theoretical, computational, experimental or investigative analysis, or a combination of these.

Assessment strategy: 80% Coursework, 20% Coursework

3.3. Learning and teaching methods

All staff involved with the programme are here to help you. All the lectures, tutorials, workshop classes and course works have been designed to help you develop necessary skills and knowledge. Different teaching methods have been included in your programme specification. Each module will adopt a range of learning and teaching strategies that aim to meet the needs of students with diverse practice and educational experiences.

- Key lectures to introduce themes and concepts.
- Classroom based tutorials to enable students to undertake practical exercises and share ideas.
- Laboratory experimentation and testing of materials.
- Student seminar – individual and group.
- Group work activity e.g., problem solving exercises, case studies and presentations.
- Use of the Blackboard to provide supplemental reading/activity, module information and a student discussion board.

3.3.1. Approach to Teaching and Learning in AY2023-24

Face to face teaching approach is implemented for AY2023-24. Each module will have face-to-face teaching sessions.

A complete set of teaching material is prepared and uploaded on Module Boxes and Blackboard including the teaching handouts/notes, reading materials, PPT presentations, video materials recorded by staff, and other learning videos such as YouTube videos. Recorded lectures are made available to students on Blackboard.

3.3.2. Learning Resources

As a learner it is expected that you will progress from being a dependent learner when you arrive to an independent learner by the time you graduate. Lecturers will often suggest background reading or exercises, which you should tackle. You should undertake all necessary pre-reading, accessing of materials from the Blackboard site prior to (or after) sessions.

In addition to the physical book stock available at ICEM Library, UCLan e-Library provides access to a huge range of electronic resources, databases, e- books and journals. These resources are licensed for educational use only and they are available for ICEM students at UCLan Student Portal. Students can access UCLan e-Library using UCLan username and password.

3.3.3. Personal Development Planning

The College encourages and supports students to achieve personal development plans in a variety of ways – directly through the programme material and associated experiences. This is supported by the programme team, your module tutors and the Personal Tutor/Academic Advisor.

3.3.4. Preparing for your Career: Career Guidance Department

Your future is important to us, so to make sure that you achieve your full potential whilst at the College and beyond, your programme has been designed with employability learning integrated into it at every level. This is not extra to your degree, but an important part of it which will help you to show future employers just how valuable your degree is. These “Employability Essentials” take you on a journey of development that will help you to write your own personal story of your time at the College:

- To begin with, you will explore your identity, your likes and dislikes, the things that are important to you and what you want to get out of life.
- Later, you will investigate a range of options including jobs and work experience, postgraduate study and self-employment,
- You will then be ready to learn how to successfully tackle the recruitment process.

It’s your future: take charge of it!

3.4. Assessment

3.4.1. Assessment Strategy

The purpose of assessment is to provide the opportunity for students to demonstrate that they have fulfilled the learning outcomes of the programme and achieved the standard required for the award they seek.

The overall assessment strategy used during the programme includes the use of formative and summative assessment weighting applied to exams, coursework or practical assessments and is set out in each of the modules. To pass the module you must achieve an aggregate mark of 40%, aggregated across all assessments.

3.4.2. Notification of assignments and examination arrangements

Students will be notified of the requirements for individual assessments and their respective deadlines for submission / examination arrangements during a timetabled session, within module information packs or through Blackboard. Students should submit their assignments in accordance

with the requirements detailed in the Assessment Submission criteria of their assignment. The timetable of the final exams will be displayed on the department notice boards and a copy of the timetable will be emailed to students. The classroom allocations will be displayed on the notice boards and sent by email at least one day before the exam.

3.4.3. Late Submissions

If you submit work late, a penalty will be applied in relation to unauthorised late submission of work.

- If you submit work within 5 working days after the published submission date, you will obtain the minimum pass mark (40%) for that element of assessment.
- Work submitted later than 5 working days after the published submission date will be awarded a mark of 0%.
- Unauthorised late submission at resubmission will automatically be awarded a mark of 0%.

3.4.4. Extensions and extenuating circumstances

For extensions and extenuating circumstances to be considered, they should be unforeseeable or unpreventable and may have had a significant adverse effect on the academic performance of a student. Possible extenuating circumstances include:

- significant illness or injury;
- the death or critical/significant illness of a close family member/dependent;
- family crises or major financial problems leading to acute stress;
- absence for jury service or maternity, paternity or adoption leave;
- a criminal act where you have been a victim

It is the sole responsibility of the student to submit a request for consideration of extenuating circumstances to the Student Support Services Department according to the published procedures and deadlines. Student may submit a request for extension of deadline before the submission date to the concerned Module Tutor along with relevant evidences/documents. The student must submit claims for extenuating circumstances within 5 working days of the assessment deadline along with corroborating evidence. Requests for extenuating circumstances submitted outside the deadline date will not be considered without a credible and compelling explanation as to why the circumstances were not known or could not have been declared beforehand.

3.4.5. Feedback Following Assessments

The College is committed to provide you clear, legible and informative feedback for all your assessments. You are expected to review and reflect on your feedback and learn from each experience to improve your performance as you progress through the course.

- For all assignments, students will be provided with feedback within 15 working days of the scheduled submission. Feedback may be provided in oral, written, audio or digital format as appropriate, and individual feedback will be posted on Blackboard.
- For Final Examinations, students will not be provided with individual feedback. Students may request generic feedback if needed. Generic feedback may include an outline of the expected answers.

Please note that all assignments and exam scripts are externally moderated by UCLan Course Leaders and by the External Examiners prior to Module/Assessment Boards. All marks awarded are provisional subject to confirmation by the Module/Assessment Boards of the University of Central Lancashire, UK.

3.4.6. Academic Misconduct (Which Includes Cheating, Plagiarism, Collusion Or Re-Presentation)

- Cheating is any deliberate attempt to deceive and covers a range of offences described in the Academic Handbook.
- 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 disguising the true authorship of an assignment by copying, or imitating in close detail another student's work - this includes with the other student's consent and also when 2 or more students divide the elements of an assignment amongst themselves and copy one another's answers.
- Re-presentation is an attempt to gain credit twice for the same piece of work.

You are required to sign a declaration indicating that individual work submitted for an assessment is your own. If an allegation is found to be proven, then the appropriate penalty will be implemented:

1. For the first time: the penalty will be 0% for the element of assessment, the plagiarized element of assessment must be resubmitted to the required standard and the mark for the module following resubmission will be restricted to the minimum pass mark (i.e. 40%).
2. In the event of a repeat offence of cheating, plagiarism, collusion or re-presentation on the

same or any other module within the course; the appropriate penalty will be 0% for the module with no opportunity for reassessment and you will have to retake the module in a subsequent year.

The College uses an online Assessment Tool called Turnitin. Students are required to self-submit their own assignment on Turnitin via Blackboard and will be given access to the Originality Reports arising from each submission. In operating Turnitin, all summative assessments will be marked anonymously where possible. Turnitin may also be used to assist with plagiarism detection and collusion, where there is suspicion about individual piece(s) of work.

The accepted similarity percentage for an assessment is about 10%. However, the case may still be reported for investigation if the similarity percentage is below 10% subject to the Module Tutor's academic judgment. Similarity percentages above 10 % will be reported to the Unfair Means to Enhance Performance Committee for further discussion with the Module Tutor/justification from the Module Tutor. The case may or may not be formally investigated.

3.4.7. Guidance for students on the use of Artificial Intelligence in Assessment

As per UCLan 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.

3.4.8. Reassessment

The decision to offer reassessment to you is at the discretion of the Assessment Board. The reassessment shall be offered to a student who does not achieve an aggregate mark of 40%, aggregated across all assessments in the module. Reassessment takes place before the start of the following academic year. The best mark that may be awarded for a reassessment in a module is 40%.

3.4.9. In-Module Reassessment

In order to help students make progress with their study, where a student has failed a component and is required to be reassessed in that component, in-module reassessment is permitted subject to the agreement with Module Leader. The maximum mark which may be awarded for in-module reassessed component will be the minimum pass mark. As part of Academic Regulation, a module, or a component within it, may be reassessed only once.

3.5. Retaking of Modules

You shall not be permitted to retake a module which has been passed. You shall retake the modules which you have not passed. The best mark that may be awarded for retaken module is 40%.

3.6. Appeals against Assessment Board Decisions

If you consider that you have a reason to appeal against an assessment board decision, please bear in mind that your reasons must fall within the grounds specified as below. *You cannot appeal simply because you disagree with the mark given.* The specified grounds for appeal are:

- ✓ that an Assessment Board has given insufficient weight to extenuating circumstances;
- ✓ that there has been a material administrative error at a stage of the examining process, or that some material irregularities have occurred;
- ✓ that the assessment procedure and/or examinations have not been conducted in accordance with the approved regulations.

If you want to appeal, then you must do so within 7 days of your results being published. The onus is on you to find out your results and submit your appeal on time. Contact the Student Affairs

Office for support and advice.

3.7. Academic Probation Status

A student is placed under Academic Probation if he/she:

- Failed at least two modules and did not progress to next academic year.
- Absent from classes for more than 25% of the total lecture hours.

Appendices:

Appendix 1: Programme Specifications

UNIVERSITY OF CENTRAL LANCASHIRE

Programme Specification

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided.

Sources of information on the programme can be found in Section 17

1.Awarding Institution / Body	University of Central Lancashire
1. Teaching Institution and Location of Delivery	Year 1-4:International College of Engineering and Management, Oman Year 4: ICEM and UCLan Preston
2. University School/Centre	School of Engineering
3. External Accreditation*	Diploma in Higher Education – accredited by the Institution of Fire Engineers as a Recognised Educational Programme (with academic exemption) for Member Grade (MIFireE) Certificate of Higher Education – Accredited by the Institution of Fire Engineers as a Recognised Educational Programme (with academic exemption) for Graduate Grade (GIFireE)
4. Title of Final Award	B.Eng (Honours) Fire Safety (Engineering)
5. Modes of Attendance offered	Full Time-4 years, Full Time with Sandwich year- 5 years Part Time – 6 years
6. UCAS Code	N/A
7b. JACS Code	H121/100183
7. Relevant Subject Benchmarking Group(s)	None specific to Fire Safety, but developed with reference to: Building and Surveying / Engineering
8. Other external influences	Institution of Fire Engineers

	Energy Institute National Fire Protection Association International Fire Service Accreditation Congress
9. Date of production/revision of this form	June 2022
10. Aims of the Programme	
<ul style="list-style-type: none"> • To develop expertise in the application of scientific, engineering and technological principles and tools to resolve design problems in fire and fire safety applications. 	
<ul style="list-style-type: none"> • To produce graduates with the ability to command and manage fire safety operations 	
<ul style="list-style-type: none"> • To provide the underpinning Science and Technology knowledge related to fire safety 	
<ul style="list-style-type: none"> • To enable graduates to assess risk and devise protection strategies as they relate to fire safety 	
<ul style="list-style-type: none"> • To produce resourceful, competent, clear thinking graduates with a range of skills and experience relevant to modern industry and commerce and in particular to develop a range of competences and underpinning knowledge for practising professionals in the field of Fire Safety 	
<ul style="list-style-type: none"> • To enable the graduates to apply their knowledge, understanding and skills to realistic situations and particularly in the context of the GCC region. 	
<ul style="list-style-type: none"> • To develop skills in communication, independent study, team working, problem solving, management and critical thinking which will equip graduates for the world of work and lifelong learning. 	

11. Learning Outcomes, Teaching, Learning and Assessment Methods**(The student should be able to:)****A. Knowledge and Understanding**

- A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety engineering and their application in the workplace
- A2. Apply the fundamental concepts of fire safety engineering to enable the generation and evaluation of alternative solutions to solve related design problems;
- A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire engineered project solutions with respect to all applicable managerial, legal and social parameters
- A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety engineering
- A5. Demonstrate the capability for independent and lifelong learning in a professional career

Teaching and Learning Methods

Traditional Lectures often followed by directed self-study; Seminars/tutorials; Laboratory activities; Lectures and demonstrations from practising professionals; Project and investigative work; Group discussions.

Assessment methods

Written assessments; Examinations; Technical Reports; Case study/Scenario based analysis.

B. Subject-specific skills

- B1. Analyse fire risk and protection needs for a range of applications, evaluate a range of strategies and implement solutions to meet these needs.
- B2. Evaluate whether design solutions integrate social, legal, engineering and technical requirements;
- B3. Evaluate managerial responsibility, including operational, financial and legal considerations in private industry and the parallel public sector;
- B4. Formulate and produce creative and innovative technical solutions to fire safety problems by applying design and engineering principles to real situations.
- B5. Independently plan and execute a research project in fire safety engineering.

Teaching and Learning Methods

Traditional Lectures often followed by directed self-study; Seminars/tutorials; Laboratory activities; Practical/Competency based activities; Lectures and demonstrations from practising

professionals; Directed project and investigative work both individually and in groups; Group discussions.
Assessment methods
Group and individual presentations; Mini projects; Reports; Examinations; Assignments; Laboratory investigations; Case study/Scenario based analysis; Competency tests.
C. Thinking Skills
C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise
C2. Identify and analyse broadly defined problems, evaluate possible optional strategies, design and optimise appropriate solutions.
C3. Select and apply appropriate problem solution skills in the processes of analysis, synthesis, evaluation and summarisation of ideas and information and the proposal of solutions;
C4. Select, collate, interpret and evaluate information from a range of sources.
Teaching and Learning Methods
Traditional Lectures often followed by directed self-study; Seminars/tutorials; Laboratory activities; Lectures and demonstrations from practising professionals; Directed project and investigative work both individually and in groups; Group discussions.
Assessment methods
Written assessments; Integrated assignments; Examinations; Technical Reports; Presentations; Case study/Scenario based analysis
D. Other skills relevant to employability and personal development
D1. Research and evaluate a wide range of sources of information from text books, journals, the media, CD Rom, newspapers, internet, technical indexes, catalogues, Standards, case law.
D2. Complete reports in a succinct and coherent format, and conduct and present individual research projects.
D3. Work independently and within a team.
D4. Communicate appropriately to a variety of audiences using a range of formats and approaches.
D5. Identify and work towards targets for personal, academic and professional development.
D6. Use IT literacy including Computational Fluid Dynamics
Teaching and Learning Methods
Traditional Lectures often followed by directed self-study; Seminars/tutorials; Laboratory

activities; Practical/Competency based activities; Lectures and demonstrations from practising professionals; Directed project and investigative work both individually and in groups; Group discussions.

Assessment methods

Reports, Presentations, Working in teams, Integrated assignments, Mini projects.

13. Programme Structures*

14. Awards and Credits*

Level	Module Code	Module Title	Credit rating	
Level 6	FV3001	Enclosure Fire Dynamics*	20	<p>BEng (Honours) Fire Safety (Engineering)</p> <p>Requires 480 credits with 360 credits at Stage 2, including a minimum of 480 credits at level 4 or above 280 credits at level 5 or above and 140 credits at level 6 or above.</p> <p>To receive the award 'with placement/ sandwich' requires successful completion of OM3000 Industrial Placement which has a notional credit rating of 120 credits.</p>
	FV3002	Fire Protection Engineering*	20	
	FV3004	Fire Investigation*	20	
	FV3102	Probabilistic Risk Analysis*	20	
	FV3201	Engineering Design Project *	20	
	FV3900	Engineering Dissertation*	20	
Level 5/6	OM3022	Research Methods and Statistics	20	<p>Advanced Diploma in Fire Safety (Engineering)</p> <p>Requires 320 credits with 200 credits at stage 2, including a minimum of 320 credits at level 4 or above, 180 credits at level 5 or above and 60 credits at level 6 or above.</p>
	OM2055	Personal and Professional Development 2	20	
	OM2023	Fire Safety in Buildings	20	
	OM3011	Disaster Mitigation and Emergency Management	20	
	OM3025	Design for Fire Safety 2	20	
	OM3024	Fire Modelling and	20	

	OM3000	Smoke Control in Buildings Industrial Placement (Option)	120 notional credits	Students who successfully complete OM3000 will received the award with industrial placement
Level 5	OM2029 OM2018 OM2074 OM2024 OM2025 OM2094 OM1040	Fire Science Fire Engineering Science Safety in Oil and Gas Industries Mathematics 1 Design for Fire Safety 1 Professional Development and Entrepreneurship Industrial Experience (Option)	20 20 20 20 20 20 20 notional credits	Diploma of Higher Education in Fire Safety (Engineering) Requires 240 credits with 120 credits at stage 2, including a minimum of 240 credits at Level 4 or above and 100 credits at Level 5 or above. Students who successfully complete OM1040 will receive the award with industrial experience
Level 4	OM1014 OM1015 OM1023 OM1024 OM1055 OM1026	Command and Management 1 Health and Safety Management Fundamentals of Fire Fighting Introduction to Fire Safety and Law Personal and Professional Development 1 Science and Mathematics for Fire Engineering	20 20 20 20 20 20	Certificate of Higher Education in Fire Safety (Engineering) Requires 120 credits including a minimum of 120 at Level 4.

15. Personal Development Planning

The modules at each level provide students with the opportunity to engage with their own personal development planning and to recognise that learning is a lifelong process.

Following appropriate introduction and induction, the programme Team will support students in reflecting on their learning, performance and achievement, and in their planning for personal, educational, and career development.

Skills in PDP such as self-reflection, recording, target setting, action planning and monitoring will be highlighted as key lead indicators of success in securing and successfully completing the Industrial Placement Period and in securing employment in the industry on graduation.

Over the duration of the programme, and including reference to extra-curricular student activities, Module Tutors for Communications and Personal Tutors will take formal responsibility for supporting students through their personal development in the following areas:

- Self-Awareness
- Study Skills
- Reviewing Progress
- Career Plans
- Making Applications

For students who undertake the Industrial Placement module, the tutors for this module will also focus attention on PDP.

Web based resource materials to be used include:

Personal Development Planning www.uclan.ac.uk/ldu/resources/pdp/intro1.htm

Skills Learning Resources www.uclan.ac.uk/lskills/TLTP3/entersite.html

The work in PDP will not be assessed.

16. Admissions criteria *

(including agreed tariffs for entry with advanced standing)

**Correct as at date of approval. For latest information, please consult the University's website.*

- 1) Applicants will normally have completed 12 years of secondary schooling and having followed Pure Mathematics stream, or the equivalent, with a grade of D or higher in Mathematics, Physics, Chemistry and English. In addition, all applicants will be

interviewed and complete a diagnostic Entry Test/Placement Test in English Language, Mathematics and Science to assess their ability to complete the programme. Applicants will be required to have a minimum average level of proficiency in English Language equivalent to IELTS band 5.0 with no band in any of the four skills (reading, listening, speaking writing) lower than 4.5. The programme includes structured provision for further development of English language skills.

OR

- 2) Students who have successfully completed a Foundation year at the International College of Engineering & Management in Oman will have undertaken final assessments in English Language (equivalent to IELTS band 5.0 with no band in any of the four skills - reading, listening, speaking writing, lower than 4.5) and will have demonstrated the level of proficiency in all areas required for admission onto the programme.

APL/APEL will be assessed through standard University procedures.

17. Key sources of information about the programme

- ICEM Marketing Brochure
- ICEM Website at www.icemoman.com
- School web site at www.uclan.ac.uk/schools/engineering/index.php
- University courses information at www.uclan.ac.uk/courses/index.php
- Professional body requirements may be found at www.ife.org.uk

18. Curriculum Skills Map

Please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed

Level	Module Code	Module Title	Core (C), Compulsory (COMP) or Option (O)	Programme Learning Outcomes																			
				Knowledge and understanding					Subject-specific Skills					Thinking Skills				Other skills relevant to employability and personal development					
				A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D1	D2	D3	D4	D5	D6
LEVEL 6	FV3001	Enclosure Fire Dynamics	Comp		√		√		√	√	√				√	√		√					√
	FV3002	Fire Protection Engineering	Comp	√	√		√		√	√			√	√	√	√		√	√				
	FV3004	Fire Investigation	Comp			√	√	√	√	√		√		√		√			√		√		
	FV3102	Probabilistic Risk Analysis	Comp	√	√		√			√				√	√		√	√					
	FV3201	Engineering Design Project	Comp	√	√	√			√		√			√	√			√	√				
	FV3900	Engineering Dissertation	Comp	√	√		√	√		√	√		√	√	√	√	√	√	√	√	√		√
LEVEL 5/6	OM3011	Disaster Mitigation and Emergency Management	Comp	√		√					√					√				√	√		
	OM3025	Design for Fire Safety 2	Comp	√	√				√	√		√		√		√		√	√				
	OM3024	Fire Modelling and Smoke Control in Buildings	Comp	√			√			√		√			√	√		√		√			√
	OM3000	Industrial Placement	OPTION				√												√	√	√	√	
	OM3022	Research Methods and Statistics	Comp				√			√					√	√	√						
	OM2055	Personal and Professional Development 2	Comp					√						√			√	√	√	√	√	√	
	OM2023	Fire Safety in Buildings	Comp		√		√		√		√	√		√				√	√	√			

Programme Learning Outcomes																									
Level	Module Code	Module Title	Core (C), Compulsory (COMP) or Option (O)	Knowledge and understanding					Subject-specific Skills					Thinking Skills				Other skills relevant to employability and personal development							
				A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D1	D2	D3	D4	D5	D6		
LEVEL 5	OM2018	Fire Engineering Science	Comp	√	√		√					√				√						√			
	OM2074	Safety in Oil and Gas Industries	Comp	√					√					√				√	√	√					
	OM2024	Mathematics 1	Comp				√							√		√									
	OM2025	Design for Fire Safety 1	Comp	√	√		√		√	√		√			√	√				√					
	OM2094	Professional Development and Entrepreneurship	Comp					√					√				√	√	√	√	√	√			
	OM2029	Fire Science	Comp	√	√		√								√	√				√					√
	OM1040	Industrial experience	O				√								√					√					
LEVEL 4	OM1014	Command and Management 1	Comp	√		√					√								√						
	OM1015	Health and Safety Management	Comp	√							√			√						√					
	OM1023	Fundamentals of fire Fighting	Comp	√				√								√				√		√			
	OM1024	Introduction to Fire Safety and Law	Comp	√				√	√											√		√			
	OM1055	Personal and Professional Development 1	Comp					√									√	√	√	√		√			
	OM1026	Science and Mathematics for Fire Engineering	Comp		√		√									√						√			

Graduate Attributes– Programme Learning Outcomes Map																				
ICEM Graduate Attributes	Programme Learning Outcomes																			
	Knowledge and Understanding					Subject-Specific Skills					Thinking Skills				Employability and personal development skills					
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D1	D2	D3	D4	D5	D6
1.Knowledge of engineering and management disciplines (K)	√	√		√	√		√	√	√	√		√	√	√	√					√
2.Critical, Analytical and Creative thinking (S)			√				√	√								√	√	√		
√3.Leadership and teamwork (S and V)			√										√				√	√		√
4.Communication skills (S)											√						√			
5.Ethics and Professionalism (V)					√			√			√			√	√	√	√		√	
6.Lifelong Learning, Research and Innovation (K)															√		√	√	√	√
7.Global competitiveness (K and S)						√														
8.Technological Literacy (K and S)			√				√	√	√	√	√	√		√		√				√

Learning Outcomes For Exit Awards

For **each exit award available**, list learning outcomes relating to the knowledge and understanding, subject specific skills, thinking, other skills relevant to employability and personal development that a typical student might be expected to gain as a result of successfully completing each level of a programme of study.

Learning outcomes for the award of Certificate of Higher Education

- A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety engineering and their application in the workplace
- A2. Apply the fundamental concepts of fire safety engineering to enable the generation and evaluation of alternative solutions to solve related
- B1. Analyse fire risk and protection needs for a range of applications, evaluate a range of strategies and implement solutions to meet these needs.
- B3. Evaluate managerial responsibility, including operational, financial and legal considerations in private industry and the parallel public sector;
- C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise
- C3. Select and apply appropriate problem solution skills in the processes of analysis, synthesis, evaluation and summarisation of ideas and information and the proposal of solutions;
- C4. Select, collate, interpret and evaluate information from a range of sources.
- D1. Research and evaluate a wide range of sources of information from text books, journals, the media, CD Rom, newspapers, internet, technical indexes, catalogues, Standards, case law.
- D2. Complete reports in a succinct and coherent format, and conduct and present individual research projects.
- D4. Communicate appropriately to a variety of audiences using a range of formats and approaches.
- D5. Identify and work towards targets for personal, academic and professional development.

Learning outcomes for the award of Diploma of Higher Education in Fire Safety (Engineering)

- A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety engineering and their application in the workplace
- A2. Apply the fundamental concepts of fire safety engineering to enable the generation and evaluation of alternative solutions to solve related design problems.
- A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety engineering
- A5. Demonstrate the capability for independent and lifelong learning in a professional career

- B1. Analyse fire risk and protection needs for a range of applications, evaluate a range of strategies and implement solutions to meet these needs.
- B2. Evaluate whether design solutions integrate social, legal, engineering and technical requirements.
- B4. Formulate and produce creative and innovative technical solutions to fire safety problems by applying design and engineering principles to real situations.
- B5. Independently plan and execute a research project in fire safety engineering.

- C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise
- C2. Identify and analyse broadly defined problems, evaluate possible optional strategies, design and optimise appropriate solutions.
- C3. Select and apply appropriate problem solution skills in the processes of analysis, synthesis, evaluation and summarisation of ideas and information and the proposal of solutions;
- C4. Select, collate, interpret and evaluate information from a range of sources.

- D1. Research and evaluate a wide range of sources of information from text books, journals, the media, CD Rom, newspapers, internet, technical indexes, catalogues, Standards, case law.
- D2. Complete reports in a succinct and coherent format, and conduct and present individual research projects.
- D3. Work independently and within a team.
- D4. Communicate appropriately to a variety of audiences using a range of formats and approaches.
- D5. Identify and work towards targets for personal, academic and professional development.
- D6. Use IT literacy including Computational Fluid Dynamics

Learning outcomes for the award of Advanced Diploma in Fire Safety (Engineering)

- A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety engineering and their application in the workplace
- A2. Apply the fundamental concepts of fire safety engineering to enable the generation and evaluation of alternative solutions to solve related design problems;
- A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire engineered project solutions with respect to all applicable managerial, legal and social parameters
- A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety engineering

- A5. Demonstrate the capability for independent and lifelong learning in a professional career.
- B1. Analyse fire risk and protection needs for a range of applications, evaluate a range of strategies and implement solutions to meet these needs.
- B2. Evaluate whether design solutions integrate social, legal, engineering and technical requirements;
- B3. Evaluate managerial responsibility, including operational, financial and legal considerations in private industry and the parallel public sector;
- B4. Formulate and produce creative and innovative technical solutions to fire safety problems by applying design and engineering principles to real situations.
- C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise
- C2. Identify and analyse broadly defined problems, evaluate possible optional strategies, design and optimise appropriate solutions.
- C3. Select and apply appropriate problem solution skills in the processes of analysis, synthesis, evaluation and summarisation of ideas and information and the proposal of solutions;
- C4. Select, collate, interpret and evaluate information from a range of sources.
- D1. Research and evaluate a wide range of sources of information from text books, journals, the media, CD Rom, newspapers, internet, technical indexes, catalogues, Standards, case law.
- D2. Complete reports in a succinct and coherent format, and conduct and present individual research projects.
- D3. Work independently and within a team.
- D4. Communicate appropriately to a variety of audiences using a range of formats and approaches.
- D5. Identify and work towards targets for personal, academic and professional development.

Learning outcomes for the award of B.Eng in Fire Safety (Engineering)

- A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety engineering and their application in the workplace
- A2. Apply the fundamental concepts of fire safety engineering to enable the generation and evaluation of alternative solutions to solve related design problems;
- A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire engineered project solutions with respect to all applicable managerial, legal and social parameters
- A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety engineering

- A5. Demonstrate the capability for independent and lifelong learning in a professional career.
- B1. Analyse fire risk and protection needs for a range of applications, evaluate a range of strategies and implement solutions to meet these needs.
- B2. Evaluate whether design solutions integrate social, legal, engineering and technical requirements;
- B3. Evaluate managerial responsibility, including operational, financial and legal considerations in private industry and the parallel public sector;
- B4. Formulate and produce creative and innovative technical solutions to fire safety problems by applying design and engineering principles to real situations.
- B5. Independently plan and execute a research project in fire safety engineering.
- C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise
- C2. Identify and analyse broadly defined problems, evaluate possible optional strategies, design and optimise appropriate solutions.
- C3. Select and apply appropriate problem solution skills in the processes of analysis, synthesis, evaluation and summarisation of ideas and information and the proposal of solutions;
- C4. Select, collate, interpret and evaluate information from a range of sources.
- D1. Research and evaluate a wide range of sources of information from text books, journals, the media, CD Rom, newspapers, internet, technical indexes, catalogues, Standards, case law.
- D2. Complete reports in a succinct and coherent format, and conduct and present individual research projects.
- D3. Work independently and within a team.
- D4. Communicate appropriately to a variety of audiences using a range of formats and approaches.
- D5. Identify and work towards targets for personal, academic and professional development.
- D6. Use IT literacy including Computational Fluid Dynamics

Appendix 2: Grading System

The Cumulative Grade Point Average (CGPA) is computed as per Table below.

Average Percentage Mark (APM)	UK degree classification		CGPA
70+	First class honours	Excellent	4.0
65-69	Upper-second class honours	Very Good	3.7
60-64			3.3
55-59	Lower-second class honours	Good	3.0
50-54			2.7
45-49	Third class honours	Fair	2.3
40-44			2.0
35-39	Ordinary/Unclassified	Fail	1.0
Below 35			0.0

Appendix 3: ICEM Public Academic Calendar 2023/2024

Below is a guide to highlight particularly important information on this calendar.

Date	Activities /Notes
03-07 September 2023	Placement Tests Foundation
10-21 September 2023	Placement Test Foundation + Registration
17-21 September 2023	Induction Week HE and Foundation
24 September 2023	First day of study - HE and Foundation
27 September 2023	Prophet Muhammad's Birthday
05 October 2023	Last date for accepting APL Applications
05 October 2023	Election of Student Advisory Council
12 October 2023	Close of Admissions 2023-2024
12 October 2023	Deadline for Sending student lists to UCLan for enrollment
18 November 2023	National Day Holiday
31 Dec 2023 -7 January 2024	Semester 1 HE Final Examinations
10 January 2024	Deadline for submission of Extenuating Circumstances Sem 1
14-25 January 2024	Semester Break HE
28 January 2024	Start of Semester 2 (First day of study – HE)
08 February 2024	Isra'a Wal Mi'raj (Ascension)
27-29 February 2024	Semester 1 HE Reassessment Examination
09 - 11 April 2024	Eid Al-Fitr Holiday
30 April 2024	Submission of Final Year Project-Dissertation
19-23 May 2024	Sem2 Final Examinations - HE
26-30 May 2024	Dissertation presentation/interview
28 May 2024	Deadline for submission of Extenuating Circumstances Sem 2
16-20 June 2024	Eid al-Adha Holiday
07 July 2024	Hijri New Year
14 July 2024	Start of Admission for new Students for Academic Year 2024-25
18 July 2024	Deadline for Appeals (final day of receiving appeals by Student Support Services)
23-25 July 2024	Semester 2 HE Reassessment Examination
23 July 2024	Renaissance Day
17 August 2024	Deadline for Appeals (final day of receiving appeals by Student Support Services)
16-19 September 2024	Induction Week in Sem 1 AY 2024-25
22 September 2024	First day of study - HE and Foundation

Dates subject to confirmation by the College.