

# 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*

<b>1. Awarding Institution / Body</b>	University of Central Lancashire
<b>2. Teaching Institution and Location of Delivery</b>	Year 1-4: International College of Engineering and Management, Oman  Year 4: ICEM and UCLan
<b>3. University School/Centre</b>	School of Engineering
<b>4. External Accreditation</b>	
<b>5. Title of Final Award</b>	BSc (Honours) Fire Safety (Management)
<b>6. Modes of Attendance offered</b>	Full Time, Yrs 1-4 Part Time – Oman (Yrs 1- 3) ; Yr 4- infill only, Sandwich
<b>7. UCAS Code</b> <b>7b. JACS Code</b>	N/A H121
<b>8. Relevant Subject Benchmarking Group(s)</b>	None specific to Fire Safety, but developed with reference to: Building and Surveying / Engineering
<b>9. Other external influences</b>	Institution of Fire Engineers Energy Institute National Fire Protection Association International Fire Service Accreditation Congress
<b>10. Date of production/revision of this form</b>	June 2022 <i>Considered as part of PR March 2019 – no changes required</i>
<b>11. Aims of the Programme</b>	
<ul style="list-style-type: none"> <li>• To develop expertise in the application of management principles as they relate to fire safety to ensure safe working practises and environments.</li> <li>• To encourage students to approach their academic and subsequent professional careers as creative and innovative individuals</li> <li>• To provide students with the skills necessary to enable them to adapt and contribute to changes and advances in the subject matter and direction of the discipline of fire safety management.</li> <li>• To enable graduates to assess risk and devise protection strategies as they relate to fire safety.</li> <li>• To produce graduates with the ability to command and manage fire safety operations</li> <li>• 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</li> <li>• To enable the graduates to apply their knowledge, understanding and skills to realistic situations.</li> <li>• 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.</li> </ul>	
<b>12. Learning Outcomes, Teaching, Learning and Assessment Methods</b> <b>(The student should be able to:)</b>	
<b>A. Knowledge and Understanding</b>	
A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety management 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 management problems;	

- A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire project solutions with respect to all applicable managerial, legal, environmental and social parameters
- A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety management

**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**

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

**B. Subject-specific skills**

- B1. Critically evaluate ideas, proposals and solutions or arguments independently and/or collaboratively in response to set scenarios and/or self-initiated activity.
- B2. Evaluate whether managerial solutions integrate social, legal, engineering and technical requirements.
- B3. Apply specialist fire safety knowledge to design problems and to ensure safe working environments.
- B4. Identify areas of research and conduct independent research on appropriate fire safety project.
- B5. Formulate and produce creative and innovative solutions to fire fighting operation and investigation problems by applying command and management principles to real situations.

**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. Demonstrate the capability for independent and lifelong learning in a professional career.
- 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; Practical/Competency based 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; Competency tests

**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	<b>B.Sc. (Honours) Fire Safety (Management)</b>  Requires 480 credits with 360 credits at Stage 2; including a minimum of 480 credits at level 4 or above, 360 credits at level 5 or above, and 180 credits at level 6 or above.  Students who successfully complete OM3000 will receive the award with Industrial Placement.
	FV3002	Fire Protection Engineering *(option)	20	
	BN3720	OR Health and Safety Management(option)	20	
	FV3101	Strategic Risk Decision Making*	20	
	FV3103 FV3500	Hazards and Risk Management* Fire Studies Dissertation*	20 40	
<i>*Modules offered in Oman</i>				
Level 5/6	OM3022	Research Methods and Statistics	20	<b>Advanced Diploma in Fire Safety (Management)</b>  Requires 360 credits with 240 credits at stage 2; including a minimum of 360 credits at level 4 or above, 240 credits at level 5 or above, and 60 credits at level 6 or above.  Students who successfully complete OM1040 will receive the award with Industrial Experience
	OM2055	Personal and Professional Development 2	20	
	OM2023 OM3010	Fire Safety in Buildings Risk Assessment and Management	20 20	
	OM3011	Disaster Mitigation and Emergency Management	20	
	OM3024	Fire Modelling and Smoke Control in Buildings	20	
	OM3000	Industrial Placement (Option)	120 notional credits	
Level 5	OM2029	Fire Science	20	<b>Diploma of Higher Education in Fire Safety (Management)</b>  Requires 240 credits with 120 credits at stage 2; including a minimum of 240 credits at Level 4 or above, and 120 credits at Level 5 or above.  Students who successfully complete OM1040 will receive the award with Industrial Experience
	OM2017	Command and Management 2	20	
	OM2074	Safety in Oil and Gas Industries	20	
	OM2024	Mathematics 1	20	
	OM2028	Fire Fighting and Operations	20	
	OM2094	Professional Development and Entrepreneurship	20	
	OM1040	Industrial Experience (Option)	20 notional credits	
Level 4	OM1014	Command and Management 1	20	<b>Certificate of Higher Education</b>  Requires 120 credits including a minimum of 120 at Level 4.
	OM1015	Health and Safety Management	20	
	OM1023	Fundamentals of Fire Fighting:	20	
	OM1024	Introduction to Fire Safety and Law	20	
	OM1055	Personal and Professional Development 1	20	
	OM1026	Science and Mathematics for Fire Engineering	20	
<b>15. Personal Development Planning</b>				
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 Course 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 course, 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](http://www.uclan.ac.uk/ldu/resources/pdp/intro1.htm)  
Skills Learning Resources [www.uclan.ac.uk/lskills/TLTP3/entersite.html](http://www.uclan.ac.uk/lskills/TLTP3/entersite.html)

The work in PDP will not be assessed.

#### **16. Admissions criteria**

1. Applicants will normally have completed 12 years of secondary schooling and having followed Pure/Applied Mathematics stream, or the equivalent, with a grade of D or higher in Mathematics, Physics, Chemistry and English for Omani General Diploma Certificate. 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](http://www.icemoman.com)
- School web site at [www.uclan.ac.uk/schools/engineering/index.php](http://www.uclan.ac.uk/schools/engineering/index.php)
- University courses information at [www.uclan.ac.uk/courses/index.php](http://www.uclan.ac.uk/courses/index.php)
- Professional body requirements may be found at [www.ife.org.uk](http://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	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*	O	✓	✓		✓	✓	✓			✓	✓	✓	✓		✓	✓				
	BN3720	Health and Safety Management	O		✓	✓	✓	✓		✓						✓						
	FV3101	Strategic Risk Decision Making*	Comp		✓			✓	✓	✓				✓			✓	✓	✓	✓		
	FV3103	Hazards and Risk Management*	Comp	✓		✓		✓	✓	✓			✓	✓					✓			
	FV3500	Fire Studies Dissertation*	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LEVEL 5/6	OM3010	Risk Assessment and Management	Comp			✓		✓		✓			✓	✓								
	OM3011	Disaster Mitigation and Emergency Management	Comp	✓		✓			✓	✓		✓			✓				✓	✓		
	OM3024	Fire Modelling and Smoke Control in Buildings	Comp	✓			✓		✓					✓			✓		✓			✓
	OM3022	Research Methods and Statistics	Comp				✓		✓		✓			✓		✓						
	OM2055	Personal and Professional Development 2	Comp											✓			✓	✓	✓	✓	✓	✓
	OM2023	Fire Safety in Buildings	Comp		✓		✓	✓		✓				✓				✓	✓	✓		

\*Modules offered at Oman

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					
LEVEL 4/5	OM2029	Fire Science	Comp	✓	✓		✓								✓			✓			
	OM2017	Command and Management 2	Comp	✓		✓				✓								✓			
	OM2074	Safety in Oil and Gas Industries	Comp	✓				✓					✓			✓	✓	✓			
	OM2024	Mathematics 1	Comp				✓						✓								
	OM2028	Fire Fighting and Operations	Comp					✓	✓	✓		✓	✓		✓			✓			
	OM2094	Professional Development and Entrepreneurship	Comp												✓	✓	✓	✓	✓	✓	
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	✓			✓											✓			

## **19. 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 course 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 management and their application in the workplace.

A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire project solutions with respect to all applicable managerial, legal, environmental and social parameters

A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety management.

B1. Critically evaluate ideas, proposals and solutions or arguments independently and/or collaboratively in response to set scenarios and/or self-initiated activity.

B2. Evaluate whether managerial solutions integrate social, legal, engineering and technical requirements.

B3. Apply specialist fire safety knowledge to design problems and to ensure safe working environments.

B5. Formulate and produce creative and innovative solutions to fire fighting operation and investigation problems by applying command and management principles to real situations.

C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise.

C3. Demonstrate the capability for independent and lifelong learning in a professional career.

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 Diploma of Higher Education in Fire Safety (Management)**

A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety management 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 management problems;

A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire project solutions with respect to all applicable managerial, legal, environmental and social parameters

A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety management.

B1. Critically evaluate ideas, proposals and solutions or arguments independently and/or collaboratively in response to set scenarios and/or self-initiated activity.

B2. Evaluate whether managerial solutions integrate social, legal, engineering and technical requirements.

B3. Apply specialist fire safety knowledge to design problems and to ensure safe working environments.

B5. Formulate and produce creative and innovative solutions to fire fighting operation and investigation problems by applying command and management principles to real situations.

C1. Critically evaluate standard practice, and apply professional judgment in making recommendations and solving problems for future best practise.

C3. Demonstrate the capability for independent and lifelong learning in a professional career.

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 Advanced Diploma in Fire Safety (Management)**

A1. Demonstrate knowledge of the main concepts and principles that underpin fire safety management 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 management problems;

A3. Evaluate the interrelationships between the professional inputs into fire engineering and fire project solutions with respect to all applicable managerial, legal, environmental and social parameters

A4. Apply and integrate knowledge and understanding from a variety of engineering disciplines into the context of fire safety management.

B1. Critically evaluate ideas, proposals and solutions or arguments independently and/or collaboratively in response to set scenarios and/or self-initiated activity.

B2. Evaluate whether managerial solutions integrate social, legal, engineering and technical requirements.

B3. Apply specialist fire safety knowledge to design problems and to ensure safe working environments.

B4. Identify areas of research and conduct independent research on appropriate fire safety project.



B5. Formulate and produce creative and innovative solutions to fire fighting operation and investigation problems by applying command and management 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. Demonstrate the capability for independent and lifelong learning in a professional career.

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