All course materials, including lecture notes and other additional materials related to your course and provided to you, whether electronically or in hard copy, as part of your study, are the property of (or licensed to) UCLan and MUST not be distributed, sold, published, made available to others or copied other than for your personal study use unless you have gained written permission to do so from the Dean of School. This applies to the materials in their entirety and to any part of the materials.
BEng(Hons) Fire Engineering
MEng(Hons) Fire Engineering

Course Leaders:

Tracy Bradford BEng (Hons) Fire Engineering
Tony Graham MEng (Hons) Fire Engineering

School of Engineering
2015/16

UCLan Mission statement
WE PROMOTE ACCESS TO EXCELLENCE ENABLING YOU TO DEVELOP YOUR POTENTIAL
We value and practise equality of opportunity, transparency and tolerance.
We strive for excellence in all we do: locally regionally, nationally and internationally.
We work in partnership with business, the community and other educators.
We encourage and promote research innovation and creativity.

Student Charter
The Student Charter has been developed by the University and the Students' Union so that students gain the maximum from their UCLan experience. It is a two-way commitment or 'contract' between the University and each individual student. It acts as a means of establishing in black and white what students can expect from the University and the Union in terms of support, and in return what we expect from our students. Read the full Student Charter.

Supporting Diversity at UCLan
UCLan recognises and values individual difference and has a public duty to promote equality and remove discrimination in relation to race, gender, disability, religion or belief, sexual orientation and age. During your time at UCLan we expect you to be able to
• experience "an integrated community based on mutual respect and tolerance where all staff and students can feel safe, valued and supported."
• contribute to creating a positive environment where discriminatory practices and discrimination no longer happen.

Please review the UCLan Equality and Diversity Policy for further information.
1 Introduction to the Course

1.1 Welcome to the course

These programmes lead to the degree award of Master of Engineering in Fire Engineering or Bachelor of Engineering in Fire Engineering. The level of education provided by the programme is appropriate to those students who will eventually hold senior positions within the fire-related professions. Throughout the programme emphasis will be placed on self-motivation, critical thinking and analytical depth.

Both the MEng and BEng courses in Fire Engineering are accredited by the Energy Institute (EI), Chartered Institution of Building Services Engineers (CIBSE) and Institution of Fire Engineers (IFE). These professional accrediting bodies play an active part in ensuring the course is developed to meet professional needs. The accreditation of your course is printed on the final certificate when you graduate.
1.2 Rationale, aims and learning outcomes of the course

This handbook should be read in conjunction with the ‘Student Guide to Regulations’.

This programme is designed to lead to the award of the BEng (Hons) in Fire Engineering or MEng (Hons) in Fire Engineering. The level of education provided by the programmes are appropriate to those students who will eventually hold senior management positions within the fire-related professions. Throughout the programme, emphasis will be placed on self-motivation, critical thinking and analytical depth.

The programmes are concerned with the study of fire development and prevention and the means by which its consequence may be reduced to a minimum in human, environmental and financial terms. The programme emphasises Fire Engineering in the context of buildings and infrastructure. It is supported by an established research base and builds on the training and educational programmes offered by the Institution of Fire Engineers.

The BEng/ MEng (Hons) Fire Engineering programmes are designed to achieve partial accreditation of the Energy Institute (EI) for Chartered Engineer status (CEng) and Members Status with the Institution of Fire Engineers (IFE) and the Chartered Institute of Building Services Engineers (CIBSE). The accreditation of your course is printed on the final certificate when you graduate.

1.3 Career Opportunities

The application of Fire Engineering is multi-disciplinary and it is envisaged that, as in the professional world, you will carry out project work, which will facilitate dialogue between the Fire Engineer and other members of the design and management teams. It is the development of novel technological and engineering solutions within the often contradictory constraints of safety, economy and the law which pose the challenge in the course.

In the past, the emphasis has centred on practical engineering analysis and training, however this focus is now changing. This course will promote the need to question evidence and anecdotal statements and provoke independent critical thought. In a time of rapid technological advance, when the international community is aware of and sensitive to environmental issues including health and safety management systems, you will have sufficient understanding of the technology underpinning and current developments to analyse and offer solutions to the problems faced by consulting engineers in the field of Fire Engineering.

As a result you will find that the programme is now characterised by parallel themes of management and project work. The management theme will develop your capabilities as a project manager in the field of fire engineering, whilst the project modules will provide scope for integrative studies on practical engineering and design situations.
Some of the modules you will be taking on the programme are common to several programmes and as such, you will be studying alongside those students – both full and part time. This will, no doubt, help you to gain a good insight into the nature and scope of these closely related fire disciplines.

1.4 Preparing for your career opportunities

Your University experience is not only about achieving your chosen award, it is also about developing as a person and realising your potential. We want you to gain the skills and attitudes that will help you to achieve your goals and aspirations.

Your future is important to us, so to make sure that you achieve your full potential whilst at university and beyond, your course has been designed with employability learning integrated into it. 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 university:

- 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.

You will be able to record your journey using Pebblepad, the university’s e-portfolio system, which will leave you with a permanent record of all the fantastic things you have achieved during your time at UCLan.

It’s your future: take charge of it!

**Careers** offers a range of support for you including:-

- Career and employability advice and guidance appointments
- Support to find work placements, internships, voluntary opportunities, part-time employment and live projects
- Workshops, seminars, modules, certificates and events to develop your skills
- Daily drop in service available from 09:00-17:00 for CV checks and initial careers information. For more information come along and visit the team (in Foster Building near the main entrance) or access our careers and employability resources via the Student Portal.
1.5 Aims of the Course

It is important that you and the teaching team are clear about exactly what we are aiming to achieve.

The aims of the BEng/ MEng (Hons) Fire Engineering programme are to:

• Prepare students with the necessary scientific, engineering and technological principles and tools to resolve complex design problems in fire and fire safety applications.
• Develop a suitable understanding and application of management skills, including team working, leadership and organisation to implement strategies to resolve engineering design problems and projects.
• Develop an expertise in the application of health and safety management systems to resolve problems, implement safe design solutions and to ensure safe working environments.
• Develop the use of appropriate analytical and computational methods in the study of fires and the resolution of fire engineering problems for the built environment and related infrastructure.
• Provide an understanding and application of the legal principles as they impact upon the study of fires and fire safety, including design, project control and implementation.
• Develop safe building designs, taking account of the influences and implications of human behaviour in fires.

1.6 Learning Outcomes of the Course

This list of the major learning outcomes of the programmes will give you an idea of the global learning goals. However in the module booklets you will see the syllabuses of the individual modules and their learning outcomes that will give your more information. You could also refer to the module descriptions, which are in effect summaries of the module booklets and are available on BlackBoard.

At the end of the BEng/MEng (Hons) Fire Engineering programme you will have a knowledge and understanding of, and be able to:

• Demonstrate an understanding of the key principles of all relevant scientific and engineering aspects relating to fires and combustion and their applications to the study of fire engineering for the built environment using simulated scenarios and actual case studies;
• Demonstrate an understanding of the design, operation and performance of technological design solutions to achieve fire safety in built structures;
• Demonstrate and critically evaluate the use of appropriate strategies for the application of fire engineered solutions;
• Describe the interrelationships between the professional inputs into fire engineering and fire engineered project solutions with respect to applicable managerial, legal and social parameters.
Additionally at the end of the MEng (Hons) Fire Engineering programme you will have a knowledge and understanding of, and be able to:

- Apply managerial, legal and social principles of solution of fire engineering problems.

At the end of the BEng/MEng (Hons) Fire Engineering programme you will have obtained the following thinking skills and be able to:

- Evaluate the concepts, values and debates which inform study and practice in fire engineering;
- Employ appropriate problem solution skills, as appropriate, in the processes of analysis, synthesis, evaluation and summarization of ideas and information and the proposal of solutions;
- Debate in a rational manner future strategies and proposals for the resolution of fire safety problems, design and project management solutions in a changing social environment.

Additionally at the end of the MEng (Hons) Fire Engineering programme you will have obtained the following thinking skills and be able to:

- Critically evaluate solutions to problems provided by others.
- Appraise and employ appropriate business, legal, social, cultural, environmental issues for fire safety engineering.

At the end of the BEng/MEng (Hons) Fire Engineering programme you will be able to:

- Generate ideas, proposals and solutions or arguments independently and/or collaboratively in response to set scenarios and/or self-initiated activity;
- Evaluate whether design solutions integrate social, legal, engineering and technical requirements;
- Identify appropriate design and governance problems and formulate clear objectives using analytical data and I&CT software as appropriate;
- Develop design briefs with clarity graphically and/or in written specifications;
- Demonstrate ability in independent planning and execution of a research project in fire engineering.

Additionally at the end of the MEng Fire Engineering programme you will be able to:

- Identify appropriate design and governance problems and formulate clear objectives using CFD software
Implement proposals and solutions, independently and/or collaboratively in response to set scenarios and/or self-initiated activity involving fire engineering and building services solutions

**During the BEng/MEng (Hons) Fire Engineering programmes you will also develop transferable skills and be able to:**

- Prepare and present arguments and illustrative materials in a variety of formats.
- Demonstrate literacy and information sourcing and retrieval skills.
- Use CAE literacy including CFD modelling.
- Demonstrate communication skills in a variety of formats.
- Demonstrate self-reliance, time management, the capacity for independent learning and the ability to work effectively with others in the context of a team;
- Demonstrate negotiation skills and skills in listening and evaluating the opinions and values of others.

**Additionally during the MEng Fire Engineering programme you will also develop transferable skills and be able to:**

- Demonstrate the ability to communicate and present critical arguments to a range of audiences

Most students registered on the BEng (Hons) Fire Engineering programme will go on to study and achieve a Bachelor of Engineering degree with Honours; however, you may also exit your degree scheme with a Bachelor of Science degree without honours, a Diploma in Higher Education (DipHE) or a Certificate in Higher Education (CertHE).

Most students registered on the MEng Fire Engineering programme will go on to study and achieve a Masters degree; however, you may also exit your degree scheme with a Bachelor of Science degree with or without honours, a Diploma in Higher Education (DipHE) or a Certificate in Higher Education (CertHE).

**1.7 Course Team**

Names and contact details of the key members of the team.

**Course Leaders**

Tracy Bradford  
BSc (Hons), MSc (Fire Safety Engineering)  
Course Leader for BEng(Hons) Fire Engineering,  
Retention Tutor  
Senior Lecturer (Fire Safety Engineering)  
E-mail: tebradford@uclan.ac.uk  
Ext 3237 Room JBF011
Tony Graham  BSc (Hons), PhD, CPhys, MInstP, MIFireE, CEng, MEI
Course Leader for MEng(Hons) Fire Engineering
Senior Lecturer (Fire Engineering)
E-mail: tlgraham2@uclan.ac.uk, Ext 5379 Room JBF007
### Academic Lead
Andrei Chamchine  
MSc, MA, PhD (Engineering)  
**Academic Lead for Fire and Safety Engineering**  
E-mail: achamchine@uclan.ac.uk  
Ext 3207 Room JBF104

### Academic Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Qualifications</th>
<th>Positions</th>
<th>E-mails</th>
<th>Ext</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephen Andrews</td>
<td>BSc (Zoology/Psychology), MSc (Bio-aeronautics)</td>
<td>Senior Lecturer (Forensic Fire Investigation)</td>
<td><a href="mailto:spandrews@uclan.ac.uk">spandrews@uclan.ac.uk</a></td>
<td>4173</td>
<td>JBF002</td>
</tr>
<tr>
<td>Simon Cable</td>
<td>BSc (Hons), MA (Professional Training and Development)</td>
<td>Senior Lecturer (Fire Safety and Fire Protection)</td>
<td><a href="mailto:scable@uclan.ac.uk">scable@uclan.ac.uk</a></td>
<td>5680</td>
<td>JBF011</td>
</tr>
<tr>
<td>Paul Currie</td>
<td>BEng (Hons), PhD CEng, MIFireE</td>
<td>Lecturer (Fire Safety Engineering)</td>
<td><a href="mailto:pmcurrie@uclan.ac.uk">pmcurrie@uclan.ac.uk</a></td>
<td>3514</td>
<td>Room JB007</td>
</tr>
<tr>
<td>Khalid Khan</td>
<td>BSc (Hons), MSc, PhD (Chaos Theory, Systems Engineering),</td>
<td>Senior Lecturer (Engineering Mathematics)</td>
<td><a href="mailto:kkhan5@uclan.ac.uk">kkhan5@uclan.ac.uk</a></td>
<td>5684</td>
<td>Room JBF010</td>
</tr>
<tr>
<td>Weiming Liu</td>
<td>BSc, MSc, PhD</td>
<td>Senior Lecturer (Fire Safety Engineering)</td>
<td><a href="mailto:wliu1@uclan.ac.uk">wliu1@uclan.ac.uk</a></td>
<td>3239</td>
<td>Room JBF003</td>
</tr>
<tr>
<td>Jianqiang Mai</td>
<td>BEng, MEng (Fluid Machinery), PhD (Mechanical Engineering)</td>
<td>Senior Lecturer (Fire Engineering)</td>
<td><a href="mailto:JMai@uclan.ac.uk">JMai@uclan.ac.uk</a></td>
<td>4335</td>
<td>Room JBF007</td>
</tr>
<tr>
<td>Shephard Ndlovu</td>
<td>BSc (Hons), MIFE, IFSM, FHEA</td>
<td>Senior Lecturer (Fire Safety Engineering)</td>
<td><a href="mailto:sndlovu@uclan.ac.uk">sndlovu@uclan.ac.uk</a></td>
<td>3225</td>
<td>Room JBF010</td>
</tr>
<tr>
<td>Kenneth Peek</td>
<td></td>
<td>Lecturer (Fire and Rescue Service Management)</td>
<td><a href="mailto:Kpeek@uclan.ac.uk">Kpeek@uclan.ac.uk</a></td>
<td>4380</td>
<td>Room JBF002</td>
</tr>
<tr>
<td>Jinghua Zhang</td>
<td>BEng, MSc, PhD (Electrical Engineering and Electronics)</td>
<td>Senior Lecturer (Fire Safety Engineering)</td>
<td><a href="mailto:jzhang7@uclan.ac.uk">jzhang7@uclan.ac.uk</a></td>
<td>5686</td>
<td>Room JBF003</td>
</tr>
</tbody>
</table>
Campus Admin Services is located in the Computer and Technology Building room. Hub contact details are as follows:

Telephone: 01772 891994 or 01772 891995,

Email: CandThub@uclan.ac.uk

1.8 Academic advisor
You will be assigned an Academic advisor who will assist with Academic related problems. You will find out more about them and their role in induction week. You will retain the same academic advisor for the duration of your study at UCLan. Your academic advisor is your first point of contact if you have any questions or problems while studying at UCLan.

They are responsible for providing you with support and advice in relation to your programme of studies, assistance in accessing other services available to students within the University, and to offer whatever help and assistance they can to make your time at the University a satisfying and stimulating experience. Their job is not to have all the answers but they will be able to direct you to the person or place where they can be found. Your academic advisor should be supportive, helpful and try to understand (but not necessarily share) your point of view when you need advice. At times it may be necessary for them to challenge you over your progress, performance or attendance, but it is not their role to constantly monitor you in these areas as may have happened at school or college.

You should meet your academic advisor during induction week and time has been allocated on the induction timetable to enable you to do this. During this meeting you should make arrangements about the process by which future regular contact will be maintained. You should meet with your academic advisor regularly. You should have at least four meetings in Year 1, with at least three of these being ‘one to one’ meetings. There should be at least three contacts in Year 2, one of which should be ‘one to one’ and one two during Year 3. Both you and your tutors should keep appropriate records of meetings and this may form part of your Personal Development Process.

1.9 Communication
The University expects you to use your UCLan email address and check daily for messages from staff. If you send us email messages from other addresses they risk being filtered out as potential spam and discarded unread. Staff aim to reply to emails within one working day.

There are Blackboard course level spaces available for both programmes. Within these areas will find documentation relating to your course – for example student handbooks, support
and advice regarding student placements and job hunting, along with other useful information.

It is important to keep all your contact details up to date as you may be contacted by post, email, or telephone.
1.10 External Examiner

The University has appointed an External Examiner to your course who helps to ensure that the standards of your course are comparable to those provided at other higher education institutions in the UK. The name of this person, their position and home institution can be found below.

Dr Philip Rubini, Reader in Thermo Fluids and Acoustics, University of Hull.

Professor Jennifer Wen, Professor in Engineering, University of Warwick.

External Examiner reports for the Engineering courses can be accessed electronically via the Engineering@UCLan Blackboard pages.
2. Structure of the Course

2.1 Overall structure

Your degree is composed of modules, which can be full modules with a weighting of 1.0, half modules with a weighting of 0.5, or double modules with a weighting of 2.0. Typically, degree programmes consist of a mixture of half, full and (more rarely) double modules.

Modules are also given a credit weighting so that modules at different Universities can be compared, so 0.5 modules are worth 10 credits, 1.0 modules 20 credits and 2.0 modules 40 credits.

You will see modules described by their title and having a code number. The module code consists of two letters and a number, e.g. FV1001. The letters tell you which subject delivers the module (e.g. FV = Fire Safety Engineering, FZ = Forensic Science, CJ = Criminology) and the first digit is, for full-time students, the year of study (e.g. FV1001 is normally a first-year module).

Full time students will take the equivalent of six modules in each of the three years of their studies and part time students will take four and a half modules in each of their four years of study (6.0 modules or 120 credits at level 4 in year 1, 6.0 modules or 120 credits at level 5 in year 2, and 6.0 modules or 120 credits at level 6 in year 3).

The academic year is divided into 2 semesters. Semester 1 runs from 14 September 2015 to 22 January 2016. Semester 2 runs from 25 January 2016 to 20 May 2016. Semester 3 runs from 23 May 2016 to 26 August 2016.

2.2 How the Course is Managed

At the front of this handbook you will find the names, telephone numbers, email addresses and room numbers of key people involved in the running of the Fire courses. Do not hesitate to contact them if you are unclear about anything.

Fire Engineering has a Course Leader who is responsible for planning and co-ordinating course delivery and the presentation of assessment results to the External Examiner at the Assessment Boards.

The Course Leader for BEng (Hons) Fire Engineering is Tracy Bradford, room JBF011, 01772 893237, Email tebradford@uclan.ac.uk.

The Course Leader for MEng (Hons) Fire Engineering is Tony Graham, room JBF012, 01772 895379, Email tligraham2@uclan.ac.uk.

You should see the course leader if there is anything going on with you that cannot be handled by a module tutor, academic advisor or retention tutor.

Each module you will study has a Module Tutor. The Module Tutor is responsible for the planning, delivery and assessment of the module. In some cases the Course Leader may also
be the Module Tutor. You should see the module tutor about any issues to do with their module (coursework, revision, etc.).

In addition, there is a Retention Tutor for the fire programmes. They are responsible for organising groups for tutorials and practical sessions and authorising extensions to coursework deadlines if you have an acceptable reason for not completing your work on time. This is the person you should see if you wish to request an extension on any piece of work.

Tables 1 and Table 2 below illustrate the programme structure for BEng (Hons) and MEng (Hons) Fire Engineering courses respectively. These courses exist as part of the Modular Credit Accumulation and Transfer Scheme (MODCATS). The award requires that a student pass 360 credits total for BEng (Hons), or 480 credits for MEng (Hons).

**Specific credit requirements for the target awards:**

BEng (Hons) Fire Engineering requires 360 credits including a minimum of 220 at level 5 or above and a minimum of 120 at level 6.
BEng (Hons) Fire Engineering with Industrial Placement requires 320 credits including a minimum of 60 at level 6 and 180 at level 5 or above, plus satisfactory completion of the Placement module FV2800.

MEng (Hons) Fire Engineering requires 480 credits with a minimum of 360 at level 5 or above, 200 at level 6 or above, 120 at level 7.
MEng (Hons) Fire Engineering with Industrial Placement requires 600 credits with a minimum of 240 at level 5 or above, 120 at level 6 or above.
<table>
<thead>
<tr>
<th>Year 1</th>
<th>Full Time</th>
<th>Part Time</th>
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<tbody>
<tr>
<td>FV1001 Introduction to Combustion and Fire (20 Credit)</td>
<td>FV1001 Introduction to Combustion and Fire (20 Credit)</td>
<td>FV1101 Safety and Fire Law (10 Credit)</td>
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<td>FV1201 Energy Transfer and Thermodynamics (20 Credit)</td>
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<tr>
<td>FV1207 Buildings, Materials and Fire (20 Credit)</td>
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<td>FV2003 Fire and the Built Environment (20 Credit)</td>
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<td>FV3001 Enclosure Fire Dynamics (20 Credit)</td>
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Optional Year Out:
FV2800 Industrial Experience (120 Credit)
### Table 2a: MEng (Hons) Fire Engineering

**Full Time**

#### Year 1
- FV1001 Introduction to Combustion and Fire (20 Credit)
- FV1201 Energy Transfer and Thermodynamics (20 Credit)
- FV1202 Engineering Design Practice (20 Credit)
- FV1207 Buildings, Materials and Fire (20 Credit)
- FV1302 Engineering Analysis 1 (20 Credit)
- FV1101 Safety and Fire Law (10 Credit)
- FV1502 Skills for Science and Engineering (10 Credit)

#### Year 2
- FV2001 Fluid Dynamics of Fire (20 Credit)
- FV2003 Fire and the Built Environment (20 Credit)
- FV2101 Accidents and Catastrophes (10 Credit)
- FV2102 Safety, Health and Environment (20 Credit)
- FV2103 Project Management (10 Credit)
- FV2204 Computational Engineering (20 Credit)
- FV2301 Engineering Analysis (20 Credit)

#### Year 3
- FV3001 Enclosure Fire Dynamics (20 Credit)
- FV3002 Fire Protection Engineering (20 Credit)
- FV3004 Fire Investigation (20 Credit)
- FV3201 Engineering Design Project (20 Credit)
- FV3102 Probabilistic Design Project (20 Credit)
- FV3900 Engineering Dissertation (20 Credit)

#### Year 4
- FV4001 Fires in Buildings (20 Credit)
- FV4003 Computational Fluid Dynamics (20 Credit)
- FV4102 Safety, Fire & Environmental Management (20 Credit)
- FV4201 Advanced Engineering Design Project (20 Credit)
- FV4900 Advanced Engineering Dissertation (40 Credit)

**Optional Year Out**
- FV2800 Industrial Experience (120 Credit)

### Table 2b: MEng (Hons) Fire Engineering

**Part Time**

#### Year 1
- FV1001 Introduction to Combustion and Fire (20 Credit)
- FV1201 Energy Transfer and Thermodynamics (20 Credit)
- FV1202 Engineering Design Practice (20 Credit)
- FV1207 Buildings, Materials and Fire (20 Credit)
- FV1302 Engineering Analysis 1 (20 Credit)
- FV1502 Skills for Science and Engineering (10 Credit)

#### Year 2
- FV1101 Safety and Fire Law (10 Credit)
- FV1202 Engineering Design Practice (20 Credit)
- FV2001 Fluid Dynamics of Fire (20 Credit)
- FV2003 Fire and the Built Environment (20 Credit)
- FV2301 Engineering Analysis 2 (20 Credit)

#### Year 3
- FV2103 Project Management (10 Credit)
- FV2102 Safety, Health and Environment (20 Credit)
- FV2204 Computational Engineering (20 Credit)
- FV3102 Probabilistic Risk Analysis (20 Credit)
- FV3001 Enclosure Fire Dynamics (20 Credit)

#### Year 4
- FV2101 Accidents and Catastrophes (10 Credit)
- FV3002 Fire Protection Engineering (20 Credit)
- FV3004 Fire Investigation (20 Credit)
- FV3201 Engineering Design Project (20 Credit)
- FV3900 Engineering Dissertation (20 Credit)

#### Year 5/6
- FV4001 Fires in Buildings (20 Credit)
- FV4003 Computational Fluid Dynamics (20 Credit)
- FV4102 Safety, Fire & Environmental Management (20 Credit)
- FV4201 Advanced Engineering Design Project (20 Credit)
- FV4900 Advanced Engineering Dissertation (40 Credit)
Specific credit requirements for the exit awards while studying the BEng (Hons) Fire Engineering degree:

BSc Fire Engineering requires 320 credits including a minimum of 180 at level 5 or above and a minimum of 60 at level 6.

Diploma of Higher Education in Fire Engineering requires 240 credits including a minimum of 120 at Level 5 or above

Certificate of Higher Education in Fire Engineering requires 120 credits at Level 4 or above.

Specific credit requirements for the exit awards while studying the MEng (Hons) Fire Engineering degree:

BEng (Hons) Fire Engineering requires 360 credits including a minimum of 220 at level 5 or above and a minimum of 120 at level 6.

BSc Fire Engineering requires 320 credits including a minimum of 180 at level 5 or above and a minimum of 60 at level 6.

Diploma of Higher Education in Fire Engineering requires 240 credits including a minimum of 120 at Level 5 or above

Certificate of Higher Education in Fire Engineering requires 120 credits at Level 4 or above.

2.3 Modules available

Table 1 and Table 2 represent available modules for MEng/BEng(Hons) Fire Engineering. There are no optional modules for this course with exception of placement module FV2800 Industrial Experience, as it was explained in 2.1.

Please note that the above may be subject to minor modifications to reflect improvements/developments in the course or within industry. If this is the case your current year of study will not be affected and you will be notified of the changes.

2.3.1 Progression

Discussions about your progression through the course normally take place in February each year. It is an opportunity for you to make plans for your study over the next academic year. The course team will tell you about the various modules / combinations available and you will both agree on the most appropriate (and legal) course of study for you.

Changes would also be possible following the second year, but these would be more restricted and dependent on the particular modules studied.

If you do not feel capable of completing your chosen course of study then advice may be given on alternative routes or exit awards. However, it is not usually prudent to make decisions about this until results are known in June. Most likely you will be advised to finish all your modules to the best of your abilities and to seek advice once results are available.

If you wish to discuss your progression, or discuss a change of programme (e.g. from BEng to MEng) you should speak to your course leader or another member of the course team. A progression talk will be held by the Course Leader in February explaining which modules you should study next year, and what options are available to you.
2.3.2 Transfers

BEng to MEng Transfer: All students wishing to transfer from the BEng to the MEng degree are required to satisfy the course team that the course can be satisfactorily completed. The process involves an interview with a member of the course team and an average mark of 60% or above from the modules of stage 1 and stage 2.1 of the course. The entry point is determined by the module profile.

MEng to BEng Transfer: Transfer from MEng to BEng might be made for a number of reasons including extenuating circumstances or poor academic performance. Academic performance would be considered at an examination board. The examination board would offer counselling, during which time a student would be offered the transfer.

Students applying for transfers from other Universities are required to complete the accreditation of certificated prior learning (ACPL). The UCLan regulations do not allow APL of more than ⅔ of the modules required for an award. The latest entry point for external applicants transferring into the courses is the second year. All applicants transferring into the BEng and MEng courses must have accredited prior certified learning.

2.4 Study Time

2.4.1 Weekly timetable

Timetables are accessible online through the UCLan Student Portal:

https://dailytimetable.uclan.ac.uk/

2.4.2 Hours of Study

As outlined in the School Handbook the normal amount of work involved in achieving a successful outcome to your studies is to study for 10 hours per each credit you need to achieve – this includes attendance at UCLan and time spent in private study.

This translates to a total of 6 hours per 20 credit module per week. We expect that you commit 36 hours study per week (pro-rata for part-time students and/or semester-based modules), inclusive of your contact hours. So for a typical module you may have a 2 hour lecture, and a 1 hour tutorial, leaving you approximately 3 hours for self-directed study (further reading, tutorial questions, assignments, revision). This is thinking time – not coffee and biscuits time! Often you will be working in groups for practical work and you should try and arrange to meet up outside the scheduled class times. You will also need to use equipment such as computer and laboratory facilities for practical work, again sometimes outside the scheduled class times.

2.4.3 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 as follows:

Notification of illness should be made to Campus Admin Services:
☎ 01772 891994 or 01772 891995 | ✉ CandThub@uclan.ac.uk

Exceptional absence requests are made to Andrei Chamchine (Academic Lead for Fire Safety Engineering):
☎ 01772 893207 | ✉ AChamchine@uclan.ac.uk
You are encouraged to seek the advice of your Academic advisor and/or Course Leader if your personal circumstances make it difficult to meet your study obligations.

**Data Protection**

All of the personal information obtained from you and other sources in connection with your studies at the University will be held securely and will be used by the University both during your course and after you leave the University for a variety of purposes. These are all explained during the enrolment process at the commencement of your studies. If you would like a more detailed explanation of the University’s policy on the use and disclosure of personal information, please contact the Information Governance Officer, Clerk to the Board Service, University of Central Lancashire, Preston, PR1 2HE or email DPFOIA@uclan.ac.uk.

### 2.4.4 Learning and Teaching Methods

Fire Engineering is concerned with the study of fire prevention, fire development and containment, fire dynamics, fire decay and suppression, hazards and risk assessment, and the means by which fire consequence may be minimised in human, environmental and financial terms. Consequently the subject matter covered is diverse and the School therefore uses a diverse portfolio of teaching and assessment methods to reflect the nature of this subject.

There are formal lectures followed up by small group tutorials in which the subject of the lecture is explored in detail. Practical skills are developed through practical sessions which may incorporate stand-alone practical exercises or individual or group projects. You are also encouraged to engage in independent study. Most of the course is delivered by university staff but, where appropriate, experts in their own field are brought in to speak with authority from their own experience and expertise.

For some modules, you will also be studying along students on other courses, in particular students studying BSc (Hons) Fire and Leadership Studies and other courses in the School of Forensic and Investigative Sciences. This will also allow you to interact and learn from others with different backgrounds and expertise.

As with all university education you are responsible for your own learning; the lectures are merely the starting point and you will have to undertake a substantial amount of study in order to succeed.

The School has specialist teaching facilities such as fire laboratories and is also equipped with analytical facilities that include most modern scientific instrumental techniques.

The aim of the School is to promote deep and active learning and for the students to achieve an appropriate balance between (a) the accumulation of subject specific knowledge (b) the understanding of subject-specific concepts (c) the application of these and (d) the development of general investigative and presentational skills.

At Level 4 hour-long class sessions will normally be lectures or tutorials. In practice the lectures provide the theoretical background to the subject and tutorials often include problem solving exercises managed through pair or group work. The tutorials will also introduce you to the use of basic techniques and reinforce concepts introduced as theory. In addition tutorial work may also include the development of teamwork, planning, understanding accuracy and variability, and the generation and testing of hypotheses.
Modules at Level 5 and 6 will also be delivered via a mixture of teaching methods, with increased emphasis on independent study followed by discussions, presentations and data-interpretation/problem-solving exercises. A range of other skills will be developed, e.g. debating skills through discussions and oral presentations.

These learning experiences are designed to help you to master the many aspects of chemistry during the course of your degree, and are assessed through an equally wide range of exercises, designed to develop and improve your key skills (e.g. writing, referencing, report writing) as well as to assess your knowledge.

The assessment methods for the modules are different: some will be by examination, some by written assessment, presentations or a combination of these. For example, in the first year, coursework will include formats such as short notes, practical reports, structured workbooks, short directed essays, and data handling exercises, which will help to prepare you for longer essays, independent practical reports and practical examinations in the second year. The third year will include dissertation or a project report and use longer essays and more challenging data handling exercises. In terms of examinations, in the first year, multiple choice questions and short questions are the preferred format. In the second year, essay questions and data handling will be introduced; and the third year will comprise primarily longer essays, reports and more challenging analysis of data.

**Learning Information Services (LIS)**

Extensive resources are available to support your studies provided by LIS – library and IT staff. Take advantage of the free training sessions designed to enable you to gain all the skills you need for your research and study.

**Electronic Resources**

LIS provide access to a huge range of electronic resources – e-journals and databases, e-books, images and texts.
3. Assessment

Please note that all modules will be assessed. You are expected to attempt all required assessments for each module for which you are registered, and to do so at the times scheduled unless authorised extensions, special arrangements for disability, or extenuating circumstances allow you to defer your assessment.

The Course Team recognise the main purpose of assessment as:

- The diagnosis of strengths and weaknesses of individual students
- Encouragement to students to be involved in determining their own performance
- Evaluation as to whether or not the student has met the learning outcomes of the module and the programme in order to progress to the next level or achieve an exit award

Assessment is continuous and uses both formative and summative methods. Formative assessment relates to the continuing and systematic appraisal of the degree of learning. This helps you by providing feedback on the appropriateness of your study skills in meeting the learning objectives. It also assists the academic staff by providing information about the appropriateness of the learning environment in facilitating student learning. Formative assessment includes strategies that encourage you and your tutor to build on our strengths and to plan remedial help to correct identified weaknesses. Formative assessment encourages the development of personal self-awareness and self-evaluation such that corrective change can be instigated by the individual.

3.1 Assessment Strategy

The nature of formative assessment varies between modules. In some there are short tests or essays, while in others there is informal feedback via activities such as tutorials or discussion of experiment results during laboratory sessions.

It is important that we try to match assessment to the learning outcomes of each module. Sometimes we need to assess how well you have assimilated facts, sometimes we need to assess your understanding, and at other times your application of the facts. Often we need to test all of these learning outcomes at once. In addition, we need to assess skills, such as your ability to communicate your ideas.

The assessment methods and what we are trying to assess by the particular method are shown below:
Examinations  
Short answer questions are usually looking for how well you have learned factual information. Essay questions are looking for your understanding and critical analysis skills.

Oral presentations  
Your presentational skills under pressure are being assessed here, as is the ability to think on your feet using the facts that you have learned.

Essays  
Non-examination situation essays assess your understanding of the subject and ability to do research, as well as your written communication and critical analysis skills.

Case studies  
These assess the application of theory to practical situations. They also assess either your written or oral presentation skills when communicating your deliberations to the class or marker.

Dissertation  
This assesses the application of the information that you have gained, and assesses your skills in bringing a large body of work together in a concise coherent report.

You will find a detailed breakdown of the assessments in the individual module booklets.

3.2 Notification of Assignments and Examination Arrangements

You will be notified of assessments by your module tutors. They will advise you of the requirements, the marking criteria and of the respective submission dates or exam arrangements, during one or more of the timetabled sessions. In general the examination arrangements are available from the University web site. These arrangements are not generally made by the module tutors.

Submission of coursework assignments is typically by one of two methods. Paper submissions are made to the assignment boxes located on the ground floor of Computing & Technology Building (in CM007). Each assignment must have a signed ‘Assignment Submission Form’ attached. Electronic submissions are made through the Blackboard site for the module, using the Turnitin software.

3.3 Referencing

For most of your assignments you will be expected to do some further reading, and you are required to think and produce increasingly original work around the work of others. Do not fall into the ‘plagiarism trap’ either deliberately or by accident. You need to give suitable credit to those that have produced the work that you are using.
The default referencing is the Harvard referencing system (a guide to this system can be found on the Engineering@UCLan course space, accessed through the student portal). Please use this unless you are directed differently within your assignment brief.

**Dealing with difficulties in meeting assessment deadlines**

Assignments must be submitted no later than the date on your assignment instructions / brief. If you anticipate that you will have difficulty in meeting assessment deadlines or you have missed or are likely to miss in-semester tests you must report this at the earliest possible opportunity to contact the module leader.

Authorisation of the late submission of work requires written permission. Your School is authorised to give permission for one extension period of between 1 and 10 working days where appropriate evidence of good reason has been accepted and where submission within this timescale would be reasonable taking into account your circumstances (Academic Regulations).

You should complete and submit an extension request form, with any supporting evidence, to your School office. Further information is available on the Student Portal at: https://www.uclan.ac.uk/students/study/examinations_and_awards/extenuating_circumstances.php

We aim to let you know if the extension has been granted within 1 working day of the receipt of the request.

If you are unable to submit work within 10 working days after the submission date due to verifiable extenuating circumstances, you may submit a case for consideration in accordance with the University’s Policies and Procedures on Extenuating Circumstances (Academic Regulations and Assessment Handbook).

**3.4 Feedback Following Assessments**

You will be provided with generic feedback for in-module formative and summative elements of assessment which contribute to a module within 15 working days of the scheduled submission or examination date. Generic feedback on end of module assessment and dissertations will be made available within 15 days of publication of results. Feedback may be oral, written, posted on a website or other.

The module tutors have a variety of methods for helping you to improve your performance. They will often give you direction prior to the deadline in the form of feed-forward pointers based on their experiences of delivering similar learning and assessment in previous years, use this to gain a better understanding of what is expected of you.

**Extenuating circumstances**

Some students face significant events in their personal life that occur after their course has started, which have a greater impact on their studies than can be solved by the use of an extension. If this applies to you, the University is ready to support you both with regard to your course and your personal wellbeing through a process called Extenuating Circumstances (see Academic Regulations and Assessment Handbook).

Normally extenuating circumstances will relate to a change in your circumstances since you commenced your course, which have had a significant, adverse effect on your studies.
Everyday occurrences such as colds or known conditions such as hay-fever will not qualify unless the effects are unusually severe and this is corroborated by a medical note. The University does not look sympathetically on absences or delays caused by holiday commitments or by work commitments in the case of full-time students. The normal work commitments of part-time students would not constitute an extenuating circumstance. A disability or learning difficulty does not constitute an extenuating circumstance (see Academic Regulations).

Further information is available on the Student Portal at: https://www.uclan.ac.uk/students/study/examinations_and_awards/extenuating_circumstances.php

You can apply for extenuating circumstances online via myUCLan. You must apply no later than 3 days after any examination or assessment submission date. Do not wait until you receive your assessment results to submit a claim. It is in your own interests to submit the claim as soon as possible.

You will be expected to re-submit claims for extenuating circumstances for each semester. All evidence that is provided relating to extenuating circumstances will be treated in a sensitive and confidential manner. Supporting evidence will not be kept for longer than is necessary and will be destroyed shortly after the end of the current academic year.

Further information about the submission process is available at: https://www.uclan.ac.uk/students/study/examinations_and_awards/extenuating_circumstances_submission.php

In determining assessment recommendations, Assessment Boards will consider properly submitted claims from students who believe their performance has been adversely affected by extenuating circumstances. N.B. Assessment Boards are not permitted to alter individual assessment marks to take account of extenuating circumstances (Academic Regulations and Assessment Handbook).

**Late submissions**

If you submit work late and unauthorised, a universal penalty will be applied in relation to your work:

- If you submit work within 5 working days following the published submission date you will obtain the minimum pass mark for that element of assessment.

- Work submitted later than 5 working days after the published submission date will be awarded a mark of 0% for that element of assessment.

- Unauthorised late submission at resubmission will automatically be awarded a mark of 0% for that element of assessment.

**Cheating, plagiarism, collusion or re-presentation**

You are required to sign a declaration indicating that individual work submitted for an assessment is your own.
If you attempt to influence the standard of the award you obtain through cheating, plagiarism or collusion, it will be considered as a serious academic and disciplinary offence as described within the Academic Regulations and the Assessment Handbook.

- Cheating is any deliberate attempt to deceive and covers a range of offences described in the Assessment Handbook.
- Plagiarism describes copying from the works of another person without suitably attributing the published or unpublished works of others. This means that all quotes, ideas, opinions, music and images should be acknowledged and referenced within your assignments.
- 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. It does not include the normal situation in which you learn from your peers and share ideas, as this generates the knowledge and understanding necessary for each individual to independently undertake an assignment; nor should it be confused with group work on an assignment which is specifically authorised in the assignment brief.
- Re-presentation is an attempt to gain credit twice for the same piece of work.

The process of investigation and penalties which will be applied can be reviewed in the Assessment Handbook. If an allegation is found to be proven then the appropriate penalty will be implemented:

In the case of a single offence of cheating, plagiarism, collusion or re-presentation:

- the penalty will be 0% for the element of assessment, and an overall fail for the module.
- the plagiarised 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.
- when it is detected for the first time on a resubmission for an already failed module, no further resubmission for the module will be permitted, and the appropriate fail grade will be awarded.

In the event of a repeat offence of cheating, plagiarism, collusion or re-presentation (irrespective of whether the repeat offence involves the same form of unfair means) on the same or any other module within the course:

- the appropriate penalty will be 0% for the module with no opportunity for re-assessment. This penalty does not preclude you being able to retake the module in a subsequent year.

The penalties will apply if you transfer from one UCLan course to another during your period of study and module credits gained on the former course are transferred to the current course.

Contact the Students’ Union Advice and Representation Centre by emailing: suadvice@uclan.ac.uk for support and guidance.

**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 in the University Academic Regulations: Section I. You cannot appeal simply because you disagree with the mark given. The specified grounds for appeal are:
1. that an Assessment Board has given insufficient weight to extenuating circumstances;

2. that the student’s academic performance has been adversely affected by extenuating circumstances which the student has, for good reason, been unable to make known to the Assessment Board;

3. that there has been a material administrative error at a stage of the examining process, or that some material irregularities have occurred;

4. 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 14 days of your results being published. The onus is on you to find out your results and submit your appeal on time. Contact the Students’ Union Advice and Representation Centre by emailing: suadvice@uclan.ac.uk for support and guidance.
4. Student Support, Guidance and Conduct

The following section outlines any course specific support that is available whilst studying at UCLan.

4.1 Academic advisors

Academic advisors provide help for students with problems and are responsible for overseeing the progress of students, their welfare, academic counseling and guidance. Your Academic advisor is allocated when you enrol. You must see your Academic advisor when requested and meet at least once per semester. Ensure they know you and have your current email address.

Please seek help relating to lecture material and practical classes from the module tutor in the first instance. If necessary make an appointment to seek additional support. Please remember that academic staff are busy people and may not be able to give you instant help.

Although Academic advisors and Course Leaders will deal with most of the day-to-day questions which arise, the Head of School is always willing to see students and an appointment can be made through the Student Hub. Advice relating to administrative issues may be obtained from the Student Hub.

Student Support

The 'i' is a central Student Information Centre and your first point of contact. You can obtain information on a wide range of topics including Council Tax Exemption Certificates, Bank and Confirmation of Study Letters, Portable Financial Credits, (continuing students only, Printing and Printer Credit, UCLan Cards, the 'i' shop and UCLan Financial Support Bursary (first year students only).

4.2 Students with Disabilities

If you have a disability that may affect your studies, please either contact the Disability Advisory Service - disability@uclan.ac.uk - or let one of the course team know as soon as possible. With your agreement information will be passed on to the Disability Advisory Service. The University will make reasonable adjustments to accommodate your needs and to provide appropriate support for you to complete your study successfully. Where necessary, you will be asked for evidence to help identify appropriate adjustments.

Assessment arrangements for students with a disability

Arrangements are made for students who have a disability/learning difficulty for which valid supporting evidence can be made available. Contact the Disability Adviser for advice and information, disability@uclan.ac.uk

Health and Safety

As a student of the University you are responsible for the safety of yourself and for that of others around you. You must understand and follow all the regulations and safety codes necessary for a safe campus environment. Please help to keep it safe by reporting any incidents, accidents or potentially unsafe situations to a member of staff as soon as possible.

Safety assessments have been undertaken for each module of your course and you will be advised of all applicable safety codes and any specific safety issues during the induction to your course and modules. You must ensure that you understand and apply all necessary
safety codes. These form an essential element of your personal development and contribute to the safety of others.

**Conduct**

You will be expected to abide by the Regulations for the Conduct of Students in the University. UCLan 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.

If your behaviour is considered to be unacceptable, any member of staff is able to issue an informal oral warning and the University will support staff by invoking formal procedures where necessary. You can read more about UCLan expectations in the regulations for the Conduct of Students.

**Students’ Union**

The Students’ Union is the representative body for all UCLan students. The organisation exists separately from the University and is led by the elected officers of the Student Affairs Committee (SAC) as well as representatives on the Students’ Council. The Students’ Union building is located at the heart of the Preston campus, and is the hub for all student activities.

Representation and campaigning for students’ rights is at the core of what we do and is encompassed by our tag line of, Making Life Better for Students. Should you wish to make a change to any aspect of your student experience, whether it be academically related or not, then the Union is where your voice can be heard, actions taken, or campaigns launched.

Your Union is also the home to a fantastic range of student-led societies, sports teams and multitudes of volunteering opportunities. You can also receive help in finding part-time work, whilst you study. Not sure where to go pop into the Opportunities Centre on the ground floor of the Students’ Union building and someone will point you in the right direction.

We hope your time at University is trouble free, but should you come into difficulties around anything from academic appeals, to issues with housing, benefits or debt, then our dedicated staff team in the Advice and Representation Centre are on hand to help. As we are independently run from the university, we can offer truly impartial advice.

More information on all these things, as well as details about all our (not-for-profit) commercial services, including our student supermarket (Essentials) and student-bar (Source) can be found at [http://www.uclansu.co.uk/](http://www.uclansu.co.uk/).
5. Course regulations

5.1 Course requirements

The tables in section 2.2 list the modules that form your course. The (C) denotes that a particular module is a core module that cannot be compensated. You need to pass these modules to achieve an award. You also need to pass the majority of modules within the course as they are normally the pre-requisites to qualify you for progression to the following year.

A student who has not passed any modules or has an average mark below 40% is normally recommended as fail/withdraw from programme.

Where a core module has not been passed after referral and repeat study then a student will either receive an exit award or counselling on the options to achieving an exit award.

The part time mode of study can be used to work alongside your studies or to repeat a module or modules. Changing to part study involves only a meeting with the course leader or academic advisor. It is the stage requirements that become more relevant during periods of part time study.

A request from a student to transfer between courses would result in a meeting with a member of the course team and a subsequent discussion with the course leader and then a decision on the transfer. The Engineering Council Institutions require that at least two years of study are completed at the Institution that awards a degree for IEng and CEng exemption. In addition entry to the course is usually from appropriate courses that are accredited by institutions within the Engineering Council.

Courses that are accredited by the EI/CIBSE satisfy the requirements of the UK Standard for Professional Engineering Competence (UK-SPEC), published by the Engineering Council on behalf of the UK engineering profession.

The original document defining the requirements of UK-SPEC is available from the Engineering Council: http://www.engc.org.uk/professional-qualifications/standards/uk-spec

5.2 Classification of Awards

The University publishes the general principles underpinning the way in which awards and results are decided in Academic Regulations Section H. Decisions about the overall classification of awards are made by Course Assessment Boards through the application of the academic and relevant course regulations.

BEng: for Undergraduate Honours Degrees the APM is based on a weighted average of all your Level 6 modules.

MEng: for Integrated Masters Degrees the APM is based on a weighted average of all Level 5, 6 and 7 modules. Weightings are applied in the ratio 2:3:4 for Level 5: Level 6: Level 7.

In the case of Undergraduate Honours Degrees, where the APM is near a borderline, at the discretion of the Assessment Board, students may be classified according to the academic judgement of the Assessment Board taking into account their overall profile and performance with the minimum requirement that:
1. A minimum of 3 modules (60 credits) at level 6 are in the higher classification band (or above)
2. The APM is no lower than 2 percentage points below that required for the higher classification.

In operating discretion for profiling Course Assessment Boards will use academic judgement and will refer to performance in core modules, the placement component, the major project or other factors which will be published to students in advance.

Profiling is only applicable to Undergraduate Honours Degrees, i.e. does not apply to the Integrated Masters Degrees.
6. Student Voice

You can play an important part in the process of improving the quality of this course through the feedback you give. In addition to the on-going discussion with the course team throughout the year, there are a range of mechanisms for you to feedback about your experience of teaching and learning. We aim to respond to your feedback and let you know of our plans for improvement.

The Students Union can support you in voicing your opinion, provide on-going advice and support, and encourage your involvement in all feedback opportunities. They will be requesting that you complete the National Student Survey (during semester 2 for students in their final year of study) or the UCLan Student Survey (all other students).

The Students’ Union and University work closely together to ensure that the student voice is heard in all matters of student-life. We encourage students to provide constructive feedback throughout their time at university, through course reps, surveys and any other appropriate means.

The Union’s Student Affairs Committee (SAC), members of Students’ Council and School Presidents each have particular representative responsibilities, and are involved with decision making committees as high as the University Board. Therefore it is very important students engage with the democratic processes of the Students’ Union and elect the students they see as most able to represent them.

6.1 Course Representatives and School Presidents

A course representative is a student who represents their fellow students’ views and opinions to the course team, school, university and students’ union. Course representatives work proactively and diplomatically to improve the academic and non-academic experiences of students.

The role of a course representative is extremely beneficial to both students on your course and the university. It enables students to have ownership of their student experience and voice their opinions and share positive practice with the course team, primarily the Student Staff Liaison Committee Meetings (see below).

Course representatives will be elected every year either in April or September. Alongside receiving recognition, support and respect being a course representative is a great opportunity to enhance your employability skills. If you are interested in becoming a course representative and wish to find out more about the role visit the Students’ Union website or by emailing: coursereps@uclan.ac.uk.

School Presidents meanwhile are annually elected representatives who voice the opinions of students within each school. They communicate and engage with students in their school to gain feedback and work in partnership with senior management to create positive change. They are also trained to support and signpost course representatives where needed. If you wish to find out who is your School President or more about the role visit the Students’ Union website or email: coursereps@uclan.ac.uk.

Student Staff Liaison Committee Meetings (SSLC)

The purpose of a SSLC meeting is to provide the opportunity for course representatives to feedback to staff about the course, the overall student experience and to inform developments which will improve future courses. These meetings are normally scheduled once per semester.
Your Course Leader will facilitate the meetings using guidelines and provide a record of the meeting with any decisions and or responses made and or actions taken as a result of the discussions held. The meetings include discussion of items forwarded by course representatives, normally related to the following agenda items (dependent on time of year).

The course team encourage student feedback in all areas and recognise that additional items for discussion may also be raised at the meeting

• Update on actions completed since the last meeting
• Feedback about the previous year – discussion of external examiner’s report; outcomes of National /UCLan student surveys.
• Review of enrolment / induction experience;
• Course organisation and management (from each individual year group, and the course overall);
• Experience of modules - teaching, assessment, feedback;
• Experience of academic support which may include e.g. Personal Development Planning, academic advisor arrangements and The Card;
• Other aspects of University life relevant to student experience e.g. learning resources, IT, library;
• Any other issues raised by students or staff.

Complaints

The University recognises that there may be occasions when you have cause for complaint about the service you have received, when this happens, the complaints procedure is intended to provide an accessible, fair and straightforward system which ensures as effective, prompt and appropriate response. Click on this link for more information Complaints Procedure.
7. Appendices

Appendix 1 - Programme Specification for MEng(Hons) Fire Engineering

Appendix 2 - Programme Specification for BEng(Hons) Fire Engineering

Appendix 3 – SCOPE Contact Details
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 |
| 2. Teaching Institution and Location of Delivery | University of Central Lancashire (Main Campus) School of Continuing and Professional Education, Hong Kong City University (SCOPE, HKCityU) |
| 3. University School/ Centre | Forensic and Investigative Sciences |
| 4. External Accreditation | Energy Institute (EI), Chartered Institution of Building Services Engineers (CIBSE) and Institution of Fire Engineers (IFE) |
| 5. Title of Final Award | BEng (Hons) Fire Engineering |
| 6. Modes of Attendance offered | Full-time, Part-time and Sandwich (UK only) |
| 7. UCAS Code | H862 |
| 8. Relevant Subject Benchmarking Group(s) | Engineering |
| 9. Other external influences | Institution of Fire Engineers |
| 10. Date of production/revision of this form | June 2013 Updated July 2015 |

11. Aims of the Programme

- Prepare students with the necessary scientific, engineering and technological principles and tools to resolve complex design problems in fire and fire safety applications.

- Develop a suitable understanding and application of management skills, including team working, leadership and organisation to implement strategies to resolve engineering design problems and projects.

- Develop an expertise in the application of health and safety management systems to resolve problems, implement safe design solutions and to ensure safe working environments.

- Develop the use of appropriate analytical and computational methods in the study of fires and the resolution of fire engineering problems for the built environment and related infrastructure.

- Provide an understanding and application of the legal principles as they impact upon the study of fires and fire safety, including design, project control and implementation.

- Develop safe building designs, taking account of the influences and implications of human behaviour in fires.

12. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding
A1. Demonstrate an understanding of the key principles of all relevant scientific and engineering aspects relating to fires and combustion and their applications to the study of fire engineering for the built environment using simulated scenarios and actual case studies;
A2. Demonstrate an understanding of the design, operation and performance of technological design solutions to achieve fire safety in built structures;
A3. Demonstrate and critically evaluate the use of appropriate strategies for the application of fire engineered solutions;
A4. Describe the interrelationships between the professional inputs into fire engineering and fire engineered project solutions with respect to applicable managerial, legal and social parameters.

**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. Generate ideas, proposals and solutions or arguments independently and/or collaboratively in response to set scenarios and/or self initiated activity;
B2. Evaluate whether design solutions integrate social, legal, engineering and technical requirements;
B3. Identify appropriate design and governance problems and formulate clear objectives using analytical data and I&CT software as appropriate;
B4. Develop design briefs with clarity graphically and/or in written specifications;
B5. Demonstrate ability in independent planning and execution of a research project in fire 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.

**C. Thinking Skills**

C1. Evaluate the concepts, values and debates which inform study and practice in fire engineering;
C2. Employ appropriate problem solution skills, as appropriate, in the processes of analysis, synthesis, evaluation and summarization of ideas and information and the proposal of solutions;
C3. Debate in a rational manner future strategies and proposals for the resolution of fire safety problems, design and project management solutions in a changing social environment.

**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

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>D1.</td>
<td>Prepare and present arguments and illustrative materials in a variety of formats.</td>
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<tr>
<td>D2.</td>
<td>Demonstrate literacy and information sourcing and retrieval skills.</td>
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<tr>
<td>D3.</td>
<td>Use CAE literacy including CFD modelling.</td>
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<tr>
<td>D4.</td>
<td>Demonstrate communication skills in a variety of formats.</td>
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<tr>
<td>D5.</td>
<td>Demonstrate self reliance, time management, the capacity for independent learning and the ability to work effectively with others in the context of a team;</td>
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<tr>
<td>D6.</td>
<td>Demonstrate negotiation skills and skills in listening and evaluating the opinions and values of others.</td>
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</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Level</th>
<th>Module Code</th>
<th>Module Title</th>
<th>Credit rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 6</td>
<td>FV3001</td>
<td>Enclosure Fire Dynamics</td>
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<td>Level 6</td>
<td>FV3002</td>
<td>Fire Protection Engineering</td>
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</tr>
<tr>
<td>Level 6</td>
<td>FV3004</td>
<td>Fire Investigation</td>
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</tr>
<tr>
<td>Level 6</td>
<td>FV3102</td>
<td>Probabilistic Risk Analysis</td>
<td>20</td>
</tr>
<tr>
<td>Level 6</td>
<td>FV3201</td>
<td>Engineering Design Project</td>
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</tr>
<tr>
<td>Level 6</td>
<td>FV3900</td>
<td>Engineering Dissertation</td>
<td>20</td>
</tr>
</tbody>
</table>

### 14. Awards and Credits

**BEng (Hons) Fire Engineering**

Requires 360 credits including a minimum of 220 at Level 5 or above and 120 at Level 6.

**BEng (Hons) Fire Engineering (Sandwich)**

Requires 480 credits including a minimum of 120 at level 6 and 240 at level 5.

**BSc Fire Engineering**

Requires 320 credits including a minimum of 60 at Level 6 and 180 at Level 5 or above.

Note that the professional body requires that the APM for the BEng (Hons) is based on all 6 level 6 modules.

**Diploma of Higher Education in Fire Engineering**

Requires 240 credits including a minimum of 120 at Level 5 or above.
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 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 Experience 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 Academic advisors 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 Experience 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

Applicants normally will be required to have, one of:

BCC at A2 including Mathematics OR Science subject (Physics, Chemistry, Environmental Science) Biology not accepted. Relevant ND DMM. IB - 24P including Maths or Science at grade 5.

In addition applicants will be required to have Maths and English GCSE at Grade C or equivalent.

Applicants will be required to have a minimum level of proficiency in English Language equivalent to IELTS grade 6 with no subscore lower than 5.5

Applications from individuals with non-standard qualifications, relevant work or life experience and who can demonstrate the ability to cope with and benefit from degree-level studies are welcome. If candidates have not studied recently they may be required to undertake an Access programme. APL/APEL will be assessed through standard University procedures.

Please consult the UCLAN admissions department for the most up to date requirements.
### 17. Key sources of information about the programme

- University web site (www.uclan.ac.uk)
- UCAS web site (www.ucas.ac.uk)
- School website (www.uclan.ac.uk/forensic)
- Course Leader
- Admissions tutor
<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Core (C), Compulsory (COMP) or Option (O)</th>
<th>Programme Learning Outcomes</th>
</tr>
</thead>
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<tr>
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<td>A</td>
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<tr>
<td>FV3 001</td>
<td>Enclosure Fire Dynamics</td>
<td>COMP</td>
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<td>FV3 002</td>
<td>Fire Protection Engineering</td>
<td>COMP</td>
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<tr>
<td>FV3 004</td>
<td>Fire Investigation</td>
<td>COMP</td>
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</tr>
<tr>
<td>FV3 102</td>
<td>Probabilistic Risk Analysis</td>
<td>COMP</td>
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</tr>
<tr>
<td>FV3 112</td>
<td>Probabilistic Risk Assessment</td>
<td>O</td>
<td></td>
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<td>FV3 201</td>
<td>Engineering Design Project</td>
<td>COMP</td>
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<tr>
<td></td>
<td>Engineering</td>
<td>C</td>
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</tr>
<tr>
<td>FV2 001</td>
<td>Fluid Dynamics of Fire</td>
<td>COMP</td>
<td></td>
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<tr>
<td>FV2 003</td>
<td>Fire and the Built Environment</td>
<td>COMP</td>
<td></td>
</tr>
<tr>
<td>FV2 101</td>
<td>Accidents and Catastrophes</td>
<td>COMP</td>
<td></td>
</tr>
<tr>
<td>FV2 102</td>
<td>Safety, Health and Environment</td>
<td>COMP</td>
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<td>FV2 103</td>
<td>Project Management</td>
<td>COMP</td>
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<tr>
<td>FV2 204</td>
<td>Computational Engineering</td>
<td>COMP</td>
<td></td>
</tr>
<tr>
<td>FV2 301</td>
<td>Engineering Analysis 2</td>
<td>COMP</td>
<td></td>
</tr>
<tr>
<td>FV2 800</td>
<td>Industrial Experience</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>FV1 001</td>
<td>Introduction to Combustion and Fire</td>
<td>COMP</td>
<td></td>
</tr>
<tr>
<td>FV1 01</td>
<td>Safety and Fire Law</td>
<td>COMP</td>
<td></td>
</tr>
<tr>
<td>FV1 101</td>
<td>Safety and Fire Law</td>
<td>COMP</td>
<td></td>
</tr>
<tr>
<td>FV1 201</td>
<td>Energy Transfer and Thermodynamics</td>
<td>COMP</td>
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<tr>
<td>FV1 202</td>
<td>Engineering Design Practice</td>
<td>COMP</td>
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<tr>
<td>FV1 207</td>
<td>Buildings, Materials and Fire</td>
<td>COMP</td>
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<tr>
<td>FV1 302</td>
<td>Engineering Analysis 1</td>
<td>COMP</td>
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</tr>
<tr>
<td>FV1 502</td>
<td>Skills for Science and Engineering</td>
<td>COMP</td>
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</tbody>
</table>
### 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*

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<thead>
<tr>
<th>5. Awarding Institution / Body</th>
<th>University of Central Lancashire</th>
</tr>
</thead>
<tbody>
<tr>
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<td>University of Central Lancashire (Main Campus) School of Continuing and Professional Education, Hong Kong City University (SCOPE, HKCityU)</td>
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<tr>
<td>7. University School/Centre</td>
<td>Forensic and Investigative Sciences</td>
</tr>
<tr>
<td>8. External Accreditation</td>
<td>Energy Institute (EI) and Chartered Institution of Building Services Engineers (CIBSE)</td>
</tr>
<tr>
<td>9. Title of Final Award</td>
<td>MEng Fire Engineering</td>
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<tr>
<td>10. Modes of Attendance offered</td>
<td>Full-time, Part-time and Sandwich (UK only)</td>
</tr>
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<td>11. UCAS Code</td>
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<tr>
<td>12. Relevant Subject Benchmarking Group(s)</td>
<td>Engineering</td>
</tr>
<tr>
<td>13. Other external influences</td>
<td>Institution of Fire Engineers</td>
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<tr>
<td>14. Date of production/revision of this form</td>
<td>May 2011 Updated July 2015</td>
</tr>
<tr>
<td>15. Aims of the Programme</td>
<td></td>
</tr>
<tr>
<td><strong>•</strong> Prepare students with the necessary scientific, engineering and technological principles and tools to resolve complex design problems in fire and fire safety applications individually and as part of a team.</td>
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</tr>
<tr>
<td><strong>•</strong> Develop an in-depth understanding and application of management skills, including team working, leadership and organisation to implement strategies to resolve engineering design problems and projects.</td>
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<tr>
<td><strong>•</strong> Develop an expertise in the application of health and safety management systems to resolve problems, implement safe design solutions and to ensure safe working environments.</td>
<td></td>
</tr>
</tbody>
</table>
- Develop the use of appropriate analytical and computational methods in the study of fires and the resolution of fire engineering problems for the built environment and related infrastructure.

- Provide an in-depth understanding and application of the legal principles as they impact upon the study of fires and fire safety, including design, project control and implementation.

- Develop safe building designs, individually and as part of a team, taking account of the influences and implications of human behaviour in fires.

### 16. Learning Outcomes, Teaching, Learning and Assessment Methods

#### A. Knowledge and Understanding

A5. Demonstrate an understanding of the key principles of all relevant scientific and engineering aspects relating to fires and combustion and their applications to the study of fire engineering for the built environment using simulated scenarios and actual case studies;

A6. Demonstrate an understanding of design, operation and performance of technological design solutions to achieve fire safety in built structures;

A7. Demonstrate and critically evaluate the use of appropriate strategies for the application of fire engineered solutions;

A8. Describe the interrelationships between the professional inputs into fire engineering and fire engineered project solutions with respect to applicable managerial, legal and social parameters.

A9. Apply managerial, legal and social principles of solution of fire engineering problems.

#### Teaching and Learning Methods

Formal lectures, group discussion and project simulation when studying the compulsory modules. Project management is embedded within the simulation by organising team approach to task from briefing to design solution, including analysis and synthesis of technical issues and evaluation of social, legal, economic and managerial issues that impact upon a project.

#### Assessment methods

A variety of assessment methods including individual written assignments (including in the dissertation module where students submit project proposals and reflect on the process that allowed them to do so), and other project submissions and presentations (e.g. dissertation in which a reflection upon the methodology is part of the analysis expected).

#### B. Subject-specific skills

B6. Generate ideas, proposals and solutions or arguments independently and/or collaboratively in response to set scenarios and/or self initiated activity;

B7. Evaluate whether design solutions integrate social, legal, engineering and technical requirements;

B8. Identify appropriate design and governance problems and formulate clear objectives using analytical data and I&CT software as appropriate;

B9. Develop design briefs with clarity graphically and/or in written specifications;

B10. Demonstrate ability in independent planning and execution of a research project in fire engineering

B11. Identify appropriate design and governance problems and formulate clear objectives using CFD software

B12. Implement proposals and solutions, independently and/or collaboratively in response to set scenarios and/or self initiated activity involving fire engineering and building services solutions

#### Teaching and Learning Methods

Lectures, tutorials and seminars, laboratory classes with workbook or practical manuals; safe working practices described. Preparation of laboratory reports and interpretation of other data. The most appropriate methods will be used dependent on module.

#### Assessment methods

Practical reports, laboratory notebooks, data interpretation, and report writing and a viva voce. Details dependent on module.

#### C. Thinking Skills
C1. Evaluate the concepts, values and debates which inform study and practice in fire engineering;
C2. Employ appropriate problem solution skills, as appropriate, in the processes of analysis, synthesis, evaluation and summarisation of ideas and information and the proposal of solutions;
C3. Debate, in a rational manner, future strategies and proposals for the resolution of fire safety problems, design and project management solutions in a changing social environment.
C4. Critically evaluate solutions to problems provided by others.
C5. Appraise and employ appropriate business, legal, social, cultural, environmental issues for fire safety engineering.

**Teaching and Learning Methods**
Skills developed through lectures, data interpretation, case studies, practical work, research project, presentations, problem solving. The most appropriate methods will be used dependent on module.

**Assessment methods**
Workbooks, preparation of short notes, essays, reports, practical reports, group and individual presentations, a viva voce and end of module seen and unseen examinations. Details dependent on module.

D. Other skills relevant to employability and personal development
D1. Prepare and present arguments and illustrative materials in a variety of formats;
D2. Demonstrate literacy and information sourcing and retrieval skills;
D3. Use CAE literacy including CFD modelling;
D4. Demonstrate communication skills in a variety of formats;
D5. Demonstrate self reliance, time management, the capacity for independent learning and the ability to work effectively with others in the context of a team;
D6. Demonstrate negotiation skills and skills in listening and evaluating the opinions and values of others;
D7. Demonstrate the ability to communicate and present critical arguments to a range of audiences.

**Teaching and Learning Methods**
Discussions and presentations; numeracy and statistics in association with practical work; IT through coursework; teamwork through class work in tutorials, case studies and problem solving. The most appropriate methods will be used dependent on module.

**Assessment methods**
Written reports, oral presentations, word processed documents, PowerPoint presentations, data analysis and presentation, collating information from various sources, group projects and presentations; individual presentations and a viva voce. Details dependent on module.

13. Programme Structures*

<table>
<thead>
<tr>
<th>Level</th>
<th>Module Code</th>
<th>Module Title</th>
<th>Credit rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 7</td>
<td>FV4001</td>
<td>Fires in Buildings</td>
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<td>FV4003</td>
<td>Computational Fluid Dynamics</td>
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<td>FV4102</td>
<td>Safety, Fire and Environmental Management</td>
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<td>FV4201</td>
<td>Advanced Engineering Design</td>
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<td></td>
<td>FV4900</td>
<td>Advanced Engineering Dissertation</td>
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</table>

14. Awards and Credits*

- **MEng Fire Engineering**: Requires 480 credits including a minimum of 120 at Level 7 or above and 200 at Level 6 or above and 360 at level 5 or above.
- **MEng Fire Engineering (Sandwich)**: Requires 600 credits including a minimum of 120 at level 6 and 240 at level 5.
<table>
<thead>
<tr>
<th>Level 6</th>
<th>Module Code</th>
<th>Module Title</th>
<th>Credits</th>
<th>Degree Requirements</th>
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<tbody>
<tr>
<td>FV3001</td>
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<td>Enclosure Fire Dynamics</td>
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<td>BEng (Hons) Fire Engineering</td>
</tr>
<tr>
<td>FV3002</td>
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<td>Fire Protection Engineering</td>
<td>20</td>
<td>Requires 360 credits including a minimum of 120 at Level 6 and 220 at Level 5 or above</td>
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<td>FV3004</td>
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<td>Fire Investigation</td>
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<td>FV3102</td>
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<td>Probabilistic Risk Analysis</td>
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<td>FV3201</td>
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<td>Engineering Design Project</td>
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<td>FV3900</td>
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<td>Engineering Dissertation</td>
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<td><strong>Total Credits</strong></td>
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<td><strong>BEng (Hons) Fire Engineering</strong></td>
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<tr>
<th>Level 5</th>
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<td>FV2001</td>
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<td>Fluid Dynamics of Fire</td>
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<td>Diploma of Higher Education in Fire Engineering</td>
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<tr>
<td>FV2003</td>
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<td>Fire and the Built Environment</td>
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<td>Requires 240 credits including a minimum of 120 at Level 5 or above</td>
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<td>FV2101</td>
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<td>Accidents and Catastrophes</td>
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<td>FV2102</td>
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<td>Safety, Health and Environmental Management</td>
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<td>FV2103</td>
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<td>Project Management</td>
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<td>FV2204</td>
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<td>FV2301</td>
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<tr>
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<th>Degree Requirements</th>
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<tr>
<td>FV1001</td>
<td></td>
<td>Introduction to Combustion and Fire</td>
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<td>Certificate of Higher Education in Fire Science</td>
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<tr>
<td>FV1101</td>
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<td>Safety and Fire Law</td>
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<td>Requires 120 credits at Level 4 or above</td>
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<td>FV1201</td>
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<td>Energy Transfer and Thermodynamics</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>FV1202</td>
<td></td>
<td>Engineering Design Practice</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>FV1207</td>
<td></td>
<td>Buildings, Materials and Fire</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>FV1302</td>
<td></td>
<td>Engineering Analysis 1</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>FV1502</td>
<td></td>
<td>Skills for Fire Studies</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

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 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 Experience 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 Academic advisors 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 Experience 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

Applicants will normally be required to have, one of:

- BCC at A2, including Mathematics OR Science subject, Relevant ND DMM. IB - 24P including Maths or Science at grade 5.

In addition applicants will be required to have Maths and English GCSE at Grade C or equivalent.

Applicants will be required to have a minimum level of proficiency in English Language equivalent to IELTS grade 6 with no subscore lower than 5.5

Applications from individuals with non-standard qualifications, relevant work or life experience and who can demonstrate the ability to cope with and benefit from degree-level studies are welcome. If candidates have not studied recently they may be required to undertake an Access programme. APL/APEL will be assessed through standard University procedures.

Please consult the UCLAN admissions department for the most up to date requirements.

### 17. Key sources of information about the programme

- University web site ([www.uclan.ac.uk](http://www.uclan.ac.uk))
- UCAS web site ([www.ucas.ac.uk](http://www.ucas.ac.uk))
- School website ([www.uclan.ac.uk/forensic](http://www.uclan.ac.uk/forensic))
- Course Leader
- Admissions tutor
## 18. Curriculum Skills Map

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Core (C), Compulsory (COMP) or Option (O)</th>
<th>Programme Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A1</td>
<td>A2</td>
</tr>
<tr>
<td>LEVEL 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FV4001</td>
<td>Fires in Buildings</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV4003</td>
<td>Computational Fluid Dynamics</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV4102</td>
<td>Safety, Fire and Environmental Management</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV4201</td>
<td>Advanced Engineering Design Project</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV4900</td>
<td>Advanced Engineering Dissertation</td>
<td>C</td>
<td>✓</td>
</tr>
<tr>
<td>LEVEL 6</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>FV3001</td>
<td>Enclosure Fire Dynamics</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV3002</td>
<td>Fire Protection Engineering</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV3004</td>
<td>Fire Investigation</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV3102</td>
<td>Probabilistic Risk Analysis</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV3201</td>
<td>Engineering Design Project</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>FV3900</td>
<td>Engineering Dissertation</td>
<td>C</td>
<td>✓</td>
</tr>
<tr>
<td>FV2001</td>
<td>Fluid Dynamics of Fire</td>
<td>COMP</td>
<td>✓</td>
</tr>
<tr>
<td>LEVEL 5</td>
<td>Course Code</td>
<td>Course Title</td>
<td>COMP</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>FV2003</td>
<td>Fire and the Built Environment</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>FV2101</td>
<td>Accidents and Catastrophes</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>FV2102</td>
<td>Safety, Health and Environmental Management</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>FV2103</td>
<td>Project Management</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>FV2204</td>
<td>Computational Engineering</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>FV2301</td>
<td>Engineering Analysis 2</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>FV2800</td>
<td>Industrial Experience</td>
<td>O</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEVEL 4</th>
<th>Course Code</th>
<th>Course Title</th>
<th>COMP</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FV1001</td>
<td>Introduction to Combustion and Fire</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FV1101</td>
<td>Safety and Fire Law</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FV1201</td>
<td>Energy Transfer and Thermodynamics</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>FV1202</td>
<td>Engineering Design Practice</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>FV1207</td>
<td>Buildings, Materials and Fire</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>FV1302</td>
<td>Engineering Analysis 1</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FV1502</td>
<td>Skills for Fire Studies</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Note:** Mapping to other external frameworks, e.g. professional/statutory bodies, will be included within Student Course Handbooks.
Tuition fees:

Your tuition fees include:

- Scheduled course tuition, academic, technical and administrative support, use of course equipment and facilities.
- Course related induction activities.
- Placement year academic support (where the course includes a placement year).
- Course assessment and awards.
- Access to the university’s library and online resources, including on-campus wifi, networked and remote access to the university’s virtual learning environment,
- Use of the university’s estate and resources for scheduled activities and learning support
- Dissertation, project and/or thesis printing and binding where the submission of printed and bound documents is a requirement for assessment of the module(s).
- Use of the university’s technical equipment and materials identified by the course teaching team as essential for the completion of the course.
- The extra items listed against your course in the table below.

<table>
<thead>
<tr>
<th>Course name</th>
<th>Additional items included in the tuition fees for your course</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc (Hons) Chemistry (including foundation entry)</td>
<td>Laboratory coats</td>
</tr>
<tr>
<td>MChem Chemistry</td>
<td>PPE glasses</td>
</tr>
<tr>
<td>FdSc Chemistry</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Forensic Chemistry</td>
<td></td>
</tr>
<tr>
<td>BSc Archaeology</td>
<td>Field trip in each year of the course.</td>
</tr>
<tr>
<td>BSc (Hons) Forensic Science &amp; Anthropology</td>
<td></td>
</tr>
<tr>
<td>Foundation Degree Forensic Science</td>
<td></td>
</tr>
<tr>
<td>BEng (Hons) Fire Engineering</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Fire &amp; Leadership Studies</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Forensic Science</td>
<td></td>
</tr>
<tr>
<td>Cert Forensic Science</td>
<td></td>
</tr>
<tr>
<td>FdSc Fire Safety Engineering</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Fire Safety Engineering</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Forensic Science &amp; Criminal Investigation</td>
<td></td>
</tr>
<tr>
<td>FD Policing</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Applied Investigation FDE</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Applied Sciences FDE</td>
<td></td>
</tr>
<tr>
<td>Cert Fire Investigation</td>
<td></td>
</tr>
<tr>
<td>BSc (Hons) Policing &amp; Criminal Investigation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Year one outward bound trip</td>
</tr>
</tbody>
</table>
Living costs:

Living costs are not included in your tuition fees. You will need to budget for these separately. Below is an indication of some typical living costs, but everyone is different and you are strongly advised to plan your own budget.

<table>
<thead>
<tr>
<th>Typical items</th>
<th>Estimated weekly costs lower range</th>
<th>Estimated weekly costs higher range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation: University Halls of Residence based on a 42 week contract.</td>
<td>£79.03</td>
<td>£107.83</td>
</tr>
<tr>
<td>Private Halls of Residence (Living at home may reduce your accommodation costs)</td>
<td>£70 (€0)</td>
<td>£110</td>
</tr>
<tr>
<td>Food</td>
<td>£20</td>
<td>£30</td>
</tr>
<tr>
<td>Internet connection (free wifi on campus, in university halls of residence and in some private accommodation)</td>
<td>£0</td>
<td>£12</td>
</tr>
<tr>
<td>Toiletries/Laundry</td>
<td>£5</td>
<td>£15</td>
</tr>
<tr>
<td>Gas/electricity/water (included within university halls of residence costs and some private accommodation – check your contract)</td>
<td>£0</td>
<td>£20</td>
</tr>
<tr>
<td>Printing, copying, stationery.</td>
<td>£2.50</td>
<td>£10</td>
</tr>
<tr>
<td>Travel expenses (varies by method &amp; distance travelled e.g. on foot, bicycle, bus, train or car. If using bus or train check travel card / season ticket rates for savings). University halls of residence and a good selection of private accommodation are situated on campus or a short walk from campus.</td>
<td>£0</td>
<td>£40</td>
</tr>
<tr>
<td>Mobile phone or landline</td>
<td>£2.50</td>
<td>£10</td>
</tr>
<tr>
<td>Books</td>
<td>£5</td>
<td>£10</td>
</tr>
<tr>
<td>Leisure</td>
<td>£5</td>
<td>£25</td>
</tr>
<tr>
<td><strong>Total per week</strong></td>
<td><strong>£110</strong></td>
<td><strong>£282</strong></td>
</tr>
<tr>
<td><strong>Total for 42 weeks</strong> (typical halls of residence contract)</td>
<td><strong>£4,620</strong></td>
<td><strong>£11,844</strong></td>
</tr>
<tr>
<td><strong>Total for 52 weeks</strong></td>
<td><strong>£5,720</strong></td>
<td><strong>£14,664</strong></td>
</tr>
</tbody>
</table>

You may also need to budget for ‘one off’ or irregular costs

<table>
<thead>
<tr>
<th>Typical items</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedding</td>
<td>From £20</td>
</tr>
<tr>
<td>Clothes</td>
<td>Costs vary depending on your needs</td>
</tr>
<tr>
<td>TV licence</td>
<td>£145.50 per year</td>
</tr>
<tr>
<td>Insurances</td>
<td>Costs vary depending on your needs</td>
</tr>
<tr>
<td>Computer/laptop/telephone</td>
<td>You will have access to University computers or laptops for your studies or you may have your own you wish to bring. If you are acquiring one to come to university the cost varies depending on model and whether it is new or refurbished.</td>
</tr>
<tr>
<td>Furniture, crockery etc.</td>
<td>Furnished accommodation may include all your needs. Check your accommodation to see what is included.</td>
</tr>
</tbody>
</table>

Additional costs.

The costs below are incurred by some but not all students and are not included within the Tuition Fees.

<table>
<thead>
<tr>
<th>Optional items – all courses</th>
<th>Estimated costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel to course related work placements, work experience, voluntary work, or site visits (for)</td>
<td>Variable depending on the distance travelled and the method of transport chosen.</td>
</tr>
<tr>
<td>Costs of petrol, business level motor insurance cover, taxis, train fares, bus fares etc.).</td>
<td></td>
</tr>
<tr>
<td>Library fines &amp; charges</td>
<td></td>
</tr>
<tr>
<td>Avoid these by returning on time or renewing books!</td>
<td></td>
</tr>
<tr>
<td>On time £0.00</td>
<td></td>
</tr>
<tr>
<td>0-8 days overdue £0.10-0.50 per day</td>
<td></td>
</tr>
<tr>
<td>9+ days overdue £0.50-£1.00 per day</td>
<td></td>
</tr>
<tr>
<td>40+ days replacement cost and administrative charges/account suspension</td>
<td></td>
</tr>
<tr>
<td>Costs of obtaining medical or other evidence to support applications for extenuating circumstance applications relating to assessments.</td>
<td></td>
</tr>
<tr>
<td>For example a medical certificate may cost from £10.</td>
<td></td>
</tr>
<tr>
<td>Fees for arranging and invigilating course examination(s) off campus are payable by the student (Note this only applies where permitted by course regulations and approved by course leaders)</td>
<td></td>
</tr>
<tr>
<td>£300</td>
<td></td>
</tr>
<tr>
<td>Printing of electronic books, journals etc. You are strongly recommended to access these electronically.</td>
<td></td>
</tr>
<tr>
<td>Estimated £0.10 per copy sheet</td>
<td></td>
</tr>
<tr>
<td>Printing of reports, course materials and other course documents, which have been supplied or are available electronically or in hard copy in the library.</td>
<td></td>
</tr>
<tr>
<td>Estimated £0.10 per copy sheet</td>
<td></td>
</tr>
</tbody>
</table>