Course Handbook
MSc Synthetic Organic Chemistry
2018/19

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School of Physical Sciences and Computing

Please read this Handbook in conjunction with the University’s Student Handbook.

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.
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1. Welcome to the course

The School of Physical Sciences and Computing has the role of enhancing knowledge, understanding and application of chemical science, physical sciences and computing by teaching, research and scholarship. The Section of Chemistry under Chemical Science is unique due to its existence in an interdisciplinary school.

Chemistry provides important understanding of our world and how it works. Through an understanding of the chemistry of materials we can design and manufacture drugs to fight diseases; computer chips to enhance communication; pesticides to protect our health and crops; fertilisers to grow abundant food; fuels for transportation; fibres to provide comfort and variety in clothes; plastics to package food and replace worn-out body parts; and much, much more.

Chemistry also helps us to comprehend the nature of our environment, our universe and ourselves. It is pivotal in our understanding of the treatment of diseases such as cancer and AIDS. It provides essential information about issues such as global warming, ozone depletion and acid rain.

Inorganic, Organic, Physical and Analytical Chemistry are the key areas and have been known for decades. Nowadays each area under chemistry has been explored as a multidisciplinary subject under several areas such as Forensic, Nanotechnology, Nano-biotechnology, Biotechnology, Materials, Polymers etc.

The School has staff members with outstanding academic profiles (teaching/ research) in the area of chemical sciences with Analytical, Physical, Organic and Inorganic chemistry expertise and multidisciplinary research track records. In addition, it has also got excellent state of the art facilities with a range of modern well-equipped laboratories in chemical and forensic sciences and located in a brand new building (J. B. Firth) due to the University’s recent strategic investment (£12M). A central analytical suite services the laboratories which means that students will have access to most modern analytical techniques to support practical investigations. More specialised equipment for research and project work is available through the Centre for Materials Science. The School also has strong links with several Chemical Industries in the UK and overseas.

Employability is central to this postgraduate course, which provides a broad perspective of analytical techniques covering both the analysis of organic and inorganic analytes in both liquid and solid form. Career opportunities are therefore maximised across the broadest possible range of employers within the chemicals sector and related industries ranging from pharmaceuticals to micro-electronics.
1.1 Rationale, aims and 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.

Aims

The programme has been designed to provide an in-depth study of a particular topic and develop critical and analytical skills involving the principles, practices and techniques of that specialist topic. The aims of the programme are:

- To extend students' comprehension of key chemical concepts and so provide them with an in-depth understanding of synthetic organic chemistry
- To provide students with the ability to plan and carry out experiments independently and assess the significance of outcomes
- To develop in students the ability to adapt and apply methodology to the solution of unfamiliar types of problems in synthetic organic chemistry
- To instil a critical awareness of advances at the forefront of synthetic organic chemistry
- To prepare students effectively for professional employment or doctoral studies in the area of synthetic organic chemistry

Learning Outcomes

The programme provides opportunity for learners to achieve the following outcomes:

Knowledge and Understanding

- Assess an unfamiliar problem in synthetic organic chemistry and be able to design and implement a suitable solution.
- Present chemical information clearly and concisely
- Research information from literature/manuals/internet.
- Effectively plan a project and record data and their critical analysis.
- Design, plan and implement research questions to problems in synthetic organic chemistry including evaluation of hazards and environmental effects.
- Develop general strategies for synthetic organic chemistry including the identification of additional information required and problems where there is not a unique solution.

Subject Specific Skills

- Select appropriate techniques and procedures for the synthesis of specific compounds.
- Demonstrate competence in the planning, design and execution of experiments
- Evaluate different potential solutions to an unfamiliar problem.
- Work independently, under minimum supervision, and be self-critical in the evaluation of risks, experimental procedures and outcomes.
- Use an understanding of the limits of accuracy of experimental data to inform the planning of future work.

Thinking Skills

- Evaluate technical and theoretical information
- Adapt and apply methodology to the solution of unfamiliar problems.
- Assimilate, evaluate and present research results objectively.
• Undertake an individual research project, the outcome of which is potentially publishable.
• Assess the success of such a project

**Other skills relevant to employability and personal development**

• Problem-solving skills including the demonstration of self-direction and originality
• Communicate and interact with professionals from other disciplines
• Ability to exercise initiative and personal responsibility
• Ability to make decisions in complex and unpredictable situations
• Independent learning ability required for continuing professional development.
• Work independently under minimum supervision.
• Develop and write a research project within guidelines and be able to assess the success of such a project.

It is often useful to know which learning outcomes will be covered in the different modules; hence it is highly recommended to see Appendix where you can see a table containing the curriculum skill map.

**1.1 Course team**
The course team is responsible for the academic delivery of the programme. The members of the course team are:

Jennifer Readman  
BA (Hons Oxon) PhD (Inorganic Chemistry) MRSC  
e-mail: jereadman@uclan.ac.uk  
Ext: 3578 Room JBF109

Joseph Hayes  
BSc (Hons), PhD (Computational Chemistry)  
e-mail: jhayes@uclan.ac.uk  
Ext 4334 Room MB59

Richard Hull  
CSci CChem FRSC FHEA  
e-mail: trhull@uclan.ac.uk  
Ext 3543 Room JBF110

Antonios Kelarakis  
BSc(Hons) Ph.D (Materials Chemistry)  
e-mail: AKelarakis@uclan.ac.uk  
Ext 4172 Room JBF107

Chandrashekhar Kulkarni  
BSc(Hons) Ph.D (Chemical Biology)  
e-mail: CKulkarni@uclan.ac.uk  
Ext 4339 Room JBF005

Runjie Mao  
PhD (Analytical Chemistry)  
e-mail: RMao1@uclan.ac.uk  
Ext.4156, JBF101

Subrayal Reddy  
BSc (Hons), PhD (Electrochemistry), FRSC  
e-mail: smreddy@uclan.ac.uk  
Ext 3291 Room JBF005

Tapas Sen  
BSc, MSc, PhD (Materials Chemistry), FHEA, FRSC  
e-mail: tsen@uclan.ac.uk  
Ext 4371 Room JBF107

Rob Smith  
BSc (Hons), PhD (Organic Chemistry) MRSC  
e-mail: rbsmith@uclan.ac.uk  
Ext 4384 Room JBF006

Anna Stec  
BSc, PhD (Fire Chemistry)  
e-mail: aastec@uclan.ac.uk  
Ext 3759 Room JBF108

Sergey Zlatogorsky  
Hons Dip Specialist, PhD (Organometallic Chemistry)  
e-mail: szlatogorsky@uclan.ac.uk  
Ext 4336 Room MB059

**1.3 Expertise of staff**
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.
Staff in the chemistry teaching team are all qualified to postgraduate level, and have a wealth of teaching and research experience. Each member of the Chemistry team have held either postdoctoral research positions or industrial posts before joining UCLan. The chemistry team are aligned with the Centre for Materials Science (CMS). The CMS is an interdisciplinary research centre that provides a focus for the study of materials and their properties.

Particular areas of interest of the chemistry course team include:

- Nanomaterials
- Novel materials
- Porous materials
- Nuclear materials
- Organic optical materials
- Drug Design and Delivery
- Polymers
- Microwave technology
- Materials processes
- Theoretical modelling
- Fire toxicity and Fire Chemistry

For information about particular research areas, please refer to the materials webpages at [http://www.uclan.ac.uk/research/explore/themes/materials_science.php](http://www.uclan.ac.uk/research/explore/themes/materials_science.php)

1.4 Academic Advisor
You will be assigned an Academic Advisor who will provide additional academic support during the year. They will be the first point of call for many of the questions that you might have during the year. Your Academic Advisor will be able to help you with personal development, including developing skills in self-awareness, reflection and action planning.

1.5 Administration details
Campus Admin Services provides academic administration support for students and staff and are located in the following hubs which open from 8.45am until 5.15pm Monday to Thursday and until 4.00pm on Fridays. The hub can provide general assistance and advice regarding specific processes such as extenuating circumstances, extensions and appeals.

### Allen Building
- Medicine
- Dentistry
- telephone: 01772 895566
- email: AllenHub@uclan.ac.uk

### Harris Building
- Lancashire Law School
- Humanities and the Social Sciences
- Centre for Excellence in Learning and Teaching
- telephone: 01772 891996/891997
- email: HarrisHub@uclan.ac.uk

### Foster Building
- Forensic and Applied Sciences
Pharmacy and Biomedical Sciences
Psychology
Physical Sciences
telephone: 01772 891990/891991
e-mail: FosterHub@uclan.ac.uk

Computing and Technology Building
Art, Design and Fashion
Computing
Journalism, Media and Performance
Engineering
telephone: 01772 891994/891995
e-mail: CandTHub@uclan.ac.uk

Greenbank Building
Sport and Wellbeing
Management
Business
telephone: 01772 891992/891993
e-mail: GreenbankHub@uclan.ac.uk

Brook Building
Community, Health and Midwifery
Nursing
Health Sciences
Social Work, Care and Community
telephone: 01772 891992/891993
e-mail: BrookHub@uclan.ac.uk

1.6 Communication
The University expects you to use your UCLan email address and check regularly for messages from staff. If you send us email messages from other addresses they risk being filtered out as potential spam and discarded unread. The team may also use Blackboard as a means to contact you or supply course information. Appointments to speak directly with academic staff can be made either in person or by email.

1.7 External Examiner
The University has appointed three External Examiners to your course who help 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. If you wish to make contact with your External Examiner, you should do this through your Course Leader and not directly. External Examiner reports will be made available to you electronically. The School will also send a sample of student coursework to the external examiner(s) for external moderation purposes, once it has been marked and internally moderated by the course tutors. The sample will include work awarded the highest and lowest marks and awarded marks in the middle range.

Prof. John Callan
Chair in Pharmaceutical Science
Ulster University
Dr John Liggat
Reader in Physical Chemistry
Strathclyde University
Dr Tim Prior
Lecturer in Inorganic Chemistry
University of Hull
2. Structure of the course

2.1 Overall structure

The course is a three-part full time programme which lasts for 45 weeks. The first two
semesters are approximately 15 weeks long and correspond to the two University semesters
and the third semester of 16 weeks is over the summer period.

There are two intermediate exit points designed into the course. A student who successfully
completes three modules may be eligible for a Postgraduate Certificate (PgCert). This is
dependent on passing the modules required for the exit award as shown in the programme
specification which can be found in the appendix at the back of this handbook.

A student who successfully completes six modules is eligible for a Postgraduate Diploma
(PgDip).

2.2 Modules available

The content of the modules are outlined below.

FZ4810 Professional Research Skills
Scientists are required to have a wide range of skills beyond the expertise in their specialist
subject. This module provides the necessary skills in technical documentation, project
management, data analysis and retrieval etc. that are required.

FZ4006 Research Project
You will spend 16 weeks undertaking a project which uses and enhances many of the skills
learnt on the course. The majority of students will undertake their project at the University, but
the opportunity will exist for students to do their project at other relevant institutions. Following
the conclusion of the work, you will complete a report on the project as well as give a
presentation of your finding and defend your work during the viva examination.

FZ4008 Industrial placement
This module allows students to develop an understanding of the professional practices
associated with working in the chemical industry. Students will research, secure and undertake
a period of work experience with the help of their dissertation supervisor at the middle of 3rd
semester as a part of industrial placement in an organisation appropriate to the field of study.

FZ4601 Separation Science and Mass Spectrometry
In this module you will develop understanding of the underlying principles of current
separation technologies and mass spectrometry. You will also develop an important skill
where you will be able to critically appraise scientific methods and data.

FZ4603 Molecular Spectroscopy
In this module you will develop a systematic understanding and critical awareness of the full
analytical potential of the interaction of each part of the electromagnetic spectrum with matter.

FZ4605 Organic Synthetic Methods
In this module, you will develop a thorough understanding of the reagents, reactions and
procedures used in organic synthesis and mechanistic consequences of synthetic organic
reactions. It will also help you to discriminate between alternative synthetic routes to a complex
target molecule and recognising which routes will have the highest potential of success.
Finally, it will ensure that you have the ability to apply these potential routes to the design of successful syntheses of complex target molecules.

**FZ4802 Applications in Synthesis and Molecular Modelling**

The aim of this module is to allow you to develop an advanced knowledge and understanding of natural and synthetic chemistry and the application of molecular modelling in the drug discovery process.

**Delivery method**

Most of the modules that you will study in Semesters 1 and 2 of the Programme will consist of lectures and practical sessions/tutorials. Typically, as a full time student you are expected to study for 12 hours per week per module which may be broken down into lectures, practical classes, seminars, tutorials and independent study (in the library, laboratory or at home). This amounts to a minimum of 36 hours per week. **Any lesser commitment than this is unlikely to produce a good degree.**

Students should bear this in mind if you are going to undertake part-time employment. Students’ first commitment must be to the course: if you are a **full-time** student it means just that.

Semester 3 of the course is the only Research Project when students will be expected to spend approximately 14 weeks undertaking a project either at the University or on the premises of another suitable establishment. This will be followed by a 2-week period during which you will complete your report and prepare for your presentation. Whilst conducting your project, you will be expected to normally work on your project for at least 36 hours per week.

In the 2nd year, students will have their optional module FZ4008, Industrial Placement.

The amount of time spent in private study will vary from student to student and will depend on your academic ability. The recommended time should therefore in practice be taken as a minimum value.

**2.3 Course requirements**

Specific entry requirements for this course are that a student must hold one of the following qualifications:

Honours degree of the level 2.2 or above from a United Kingdom university or its equivalent.

Applications from individuals with non-standard qualifications or relevant work / life experience who can demonstrate the ability to cope with and benefit from degree-level studies are especially welcome to apply, and may be interviewed.

Applicants will be required to have a minimum level of proficiency in English Language equivalent to IELTS grade 6.5.

**2.4 Progression Information**

As this is a one year course with the possibility of an optional placement module FZ4008 in the 2nd year hence the progression to 2nd year will be based on the performance from semesters 1 and 2 and a suitable placement offer in place before the start of the dissertation module FZ4006 at the beginning of 3rd semester.
2.5 Study Time

2.5.1 Weekly timetable
Your complete timetable is available on-line via the student portal at: https://www.uclan.ac.uk/students/study/timetabling.php

You can check the times and locations of all your classes for each week. The timetable also lists which member of staff will be in charge of the session.

2.5.2 Expected hours of study
20 credits is a standard module size and equals 200 notional learning hours.

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.

You are therefore expected to spend a total of 200 hours on each module. It is important that you allocate time reasonably equally to all modules constantly throughout the academic year if you want to gain a good honours degree.

On average then, you should be planning to do between 36 and 40 hours per week. Any lesser commitment is unlikely to produce a good degree. You should bear this in mind if you intend to undertake part-time employment or pursue other interests outside the curriculum.

2.5.3 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 to: FOSTER HUB in a timely fashion.

All UCLan students are monitored on the Student Attendance Monitoring (SAM) system. In chemistry, each student’s attendance is reviewed weekly. If you miss classes you may be asked to discuss your progress and commitment with the Course Leader. If you are unable to explain your absences you may be asked to see the Academic Lead. You may wish to check your attendance record through my UCLan.

If you have not gained the required authorisation for leave of absence, do not respond to communications from the University, and if you are absent for four weeks or more, you may be deemed to have withdrawn from the course. If this is the case, then the date of withdrawal will be recorded as the last day of attendance.

Some international students will have their attendance at specific classes monitored closely. If you are in this category under the UK Border Agency (UKBA), Points Based System (PBS) you MUST attend your course of study regularly; under PBS, UCLan is obliged to tell UKBA if you withdraw from a course, defer or suspend your studies, or if you fail to attend the course regularly.

Each time you are asked to enter your details on SAM you must remember that the University has a responsibility to keep information up to date and that you must only enter your own details on the system. To enter any other names would result in inaccurate records and be dishonest. Any student who is found to make false entries can be disciplined under the student guide to regulations.
3. Approaches to teaching and learning
3.1 Learning and teaching methods

The programme is designed to produce graduates with both general and specific skills pertinent to the area studied. The course is assessed by both coursework and examination to ensure that your knowledge and abilities are fully evaluated.

The course will be delivered by lectures, tutorials and practical sessions. The practical sessions will be dependent upon the particular programme being followed and specialist laboratories will be used when appropriate. Some specialist equipment may only be available in certain rooms. Rooms will generally be open during normal university working hours, i.e. Monday to Friday, 0800-1700.

All single credit modules will be delivered in semesters 1 and 2.

Final semester (3rd) has been solely kept for your research project in order to work independently, under minimum supervision, and be self-critical in the evaluation of risks, experimental procedures and outcomes. The nature of the work and the interaction with other researchers that is needed to complete the project will all contribute to the experience.

2nd year can be used for optional module FZ4008, Industrial placement where student should work in an industry in collaboration with students’ 3rd semester dissertation supervisor. Students will be expected to reflect upon their placement work experience critically and to apply their experience to theoretical and practical elements of their course.

You will find that the pace of delivery and demands of practical sessions will increase as you progress through the modules in semester 1.

The assessment strategies of the course have been developed so that you are assessed in the way that is the most appropriate to the area of study. Therefore some modules will be assessed by coursework only whilst others will have formal examinations where this is the best way to assess your knowledge and understanding of the subject area and your ability to apply it.

3.2 Study skills

General study skills are taught early in the degree: you will be taught how to take advantage of the resources available through the library, including a huge array of online materials.

For general study skills, there are a variety of services to support students; these include:

- WISER  [https://portal.uclan.ac.uk/webapps/portal/frameset.jsp?tab_tab_group_id=33_1](https://portal.uclan.ac.uk/webapps/portal/frameset.jsp?tab_tab_group_id=33_1)
- LIS  [https://portal.uclan.ac.uk/webapps/portal/frameset.jsp?tab_tab_group_id=25_1](https://portal.uclan.ac.uk/webapps/portal/frameset.jsp?tab_tab_group_id=25_1)

3.3 Learning resources
3.3.1 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.

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

Lecturers and relevant module tutors will make material relevant to their modules available on Blackboard, the University's online learning platform. This material could include lecture notes, tutorial examples and solutions, past exam papers, links to online resources, and so on.

3.4 Personal development planning
While you are at university, you will learn many things. You already expect to learn lots of facts and techniques to do with chemistry, but you will also learn other things of which you might be unaware. You will learn how to study, how to work with other people, how to manage your time to meet deadlines, and so on. If you are to be an employable graduate it is vital that you can list in your CV the skills that employers value.

Employers are looking for skills such as:

- self-organisation
- team work
- good written communication
- good oral communication
- problem solving

To help you, we have introduced a system that aims to:
- help you to identify the skills you should be developing,
- help you to identify the ones you are weak in, and
- to take action to improve those skills.

This approach can broadly be described as Personal Development Planning, and can be defined as:

**A structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement and to plan for their personal, educational and career development.**

The University puts a high priority on your personal development, and so keeping a record of your achievements is encouraged and will help when you are applying for jobs. When you ask staff for a reference, they could use this information to help them provide more rounded detail.

3.5 Preparing for your career
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.

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.

On completing of postgraduate degree from University with a degree in Chemistry the possibilities are almost endless. Obviously, the prospective material rewards (and security of employment) are of importance but what of the chance to make contributions that impact on Society?

Your employment potential with an MSc in Synthetic Organic Chemistry should be very high, whether or not you exploit your qualifications explicitly, and a career actually involving Chemistry would certainly be relevant and meaningful.

The chemical industry provides direct employment for 214,000 people within the UK and supports several hundred thousand additional jobs throughout the economy. 23% of the UK chemical industry is based within the NW region. The UK chemicals industry out performs virtually all other UK manufacturing industries with an average growth rate of 2.9% compared to a 0.5% for all other manufacturing industries. The importance of the UK chemical industry to the balance of trade for the country cannot be overstated, it is the UK manufacturing number one exporter with a trade surplus of £4.5 billion. This has obvious implications on employment prospects, which are generally considered to be good with a wide variety of industries employing chemists in areas such as pharmaceuticals, paints, soaps and toiletries, plastics etc. Remuneration is again above average with salaries in the sector currently 19% higher than the average in manufacturing generally.

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.

4. Student Support

Your primary contact for advice on general academic matters is your academic advisor. They will advise you on matters like progression, modules, and so on. They also have a role in pastoral care, and can advise you on who to talk to in the university about a range of problems. In addition, there is the general advice desk for students called ‘The i’ – this is described below.

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).
4.1 Academic Advisors
Your primary contact for advice on general academic matters is your academic advisor. They will advise you on matters like progression, modules, and so on. They also have a role in pastoral care, and can advise you on who to talk to in the university about a range of problems. In addition, there is the general advice desk for students called ‘The i’ – this is described below.

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

4.3 Students’ Union One Stop Shop

The Opportunities Centre is the Union’s One Stop Shop to find employment or volunteering whilst you study. With thousands of jobs and voluntary positions advertised, agency work through the Bridge and information on over 2000 volunteer positions within the Union.

5. Assessment
5.1 Assessment Strategy

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.

Several different types of assessment are used in the course including reports, log book/diaries, problem solving, oral presentations, dissertations etc. In each case there are a number of common elements. The criteria listed in the following pages are the main ones used for marking. Different assessment types will contain different balances of criteria.
<table>
<thead>
<tr>
<th>Classification</th>
<th>Methods</th>
<th>Problem-solving</th>
<th>Conceptual understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding/Excellent/Very Good 70-100%</td>
<td>Error-free Application of methods to a range of easy and hard problems</td>
<td>Thorough grasp of complex problems, possible solutions and their limitations</td>
<td>Thorough grasp of the underlying concepts</td>
</tr>
<tr>
<td>Good (above average) 60-69%</td>
<td>Some errors in complex problems</td>
<td>Thorough grasp of problems but incomplete understanding of limitations of solutions</td>
<td>A grasp of most of the underlying concepts</td>
</tr>
<tr>
<td>Average 55-59%</td>
<td>Able to apply methods to a range of problems, some non-standard</td>
<td>Able to solve some complex problems, with some indication of limitations</td>
<td>A superficial understanding of the concepts with indications of the students limitations</td>
</tr>
<tr>
<td>Satisfactory (below average) 50-54%</td>
<td>Able to apply methods to a range of simple problems</td>
<td>Able to produce simple solutions to easy problems</td>
<td>Limited conceptual understanding</td>
</tr>
<tr>
<td>Bare minimal pass 50%</td>
<td>Able to apply methods to some simple problems; often with errors</td>
<td>An understanding of simple problems, with some idea of appropriate solutions</td>
<td>An understanding of only very simple concepts with conceptual gaps and misunderstandings</td>
</tr>
<tr>
<td>Fail &lt;50%</td>
<td>Failure to apply methods to simple problems, or many errors</td>
<td>Failure to understand the nature of the problem</td>
<td>No grasp of even the simplest concepts</td>
</tr>
<tr>
<td>Classification</td>
<td>Work done</td>
<td>Motivation</td>
<td>Group work</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Outstanding/Excellent/Very Good</td>
<td>Considerable work done, excellent experimental technique and achievement</td>
<td>Highly self motivated and high level of initiative</td>
<td>Well organised task management with clear delineation of roles within the group</td>
</tr>
<tr>
<td>70-100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good (above average) 60-69%</td>
<td>Clear evidence of work done, good experimental technique and significant achievement</td>
<td>Self motivated but requiring some staff help occasionally</td>
<td>Organised task management with some delineation of roles within the group</td>
</tr>
<tr>
<td>Average 55-59%</td>
<td>Reasonable amount of work done, adequate experimental technique and achievement</td>
<td>Student requires a moderate level of staff involvement to sustain the work</td>
<td>Task management is subdivided within the group but not very clearly</td>
</tr>
<tr>
<td>Satisfactory (below average) 50-54%</td>
<td>Some evidence of work done, poor experimental technique and some identifiable achievement even if not the original aim</td>
<td>Student shows little self motivation or initiative and requires a lot of staff involvement</td>
<td>Task management is poorly subdivided within the group and there is some confusion over roles</td>
</tr>
<tr>
<td>Bare minimal pass 50%</td>
<td>Small amount of work done with a small but identifiable achievement; experimental technique is very poor</td>
<td>Student shows little motivation and requires considerable staff involvement</td>
<td>Task management is ineffectively subdivided within the group and there is confusion about job allocation</td>
</tr>
<tr>
<td>Fail &lt;50%</td>
<td>Inadequate work and achievement; inadequate experimental technique</td>
<td>No motivation and lack of positive input into the project</td>
<td>No attempt to work as a group</td>
</tr>
<tr>
<td>Classification</td>
<td>Relevance</td>
<td>Knowledge</td>
<td>Analysis</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Outstanding/Excellent/Very Good</td>
<td>Directly relevant to the title; able to address the implications, assumptions and nuances of the title</td>
<td>Makes effective use of excellent knowledge and thorough understanding of the relevant material</td>
<td>A very good analysis of the evidence, arguments or results, giving clear illuminating conclusions</td>
</tr>
<tr>
<td>70-100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good (above average) 60-69%</td>
<td>Directly relevant to the title</td>
<td>A substantial knowledge and understanding of the relevant material</td>
<td>Good analysis, clear and orderly</td>
</tr>
<tr>
<td>Average 55-59%</td>
<td>Some attempt to address the title, may drift away from the title in the less focussed passages</td>
<td>Adequate knowledge of a fair range of the relevant material with intermittent evidence of understanding</td>
<td>Some analytical treatment but may be prone to description or lacking in analytical purpose</td>
</tr>
<tr>
<td>Satisfactory (below average) 50-54%</td>
<td>Some significant degree of irrelevance to the title is common</td>
<td>Basic understanding of a limited range of material</td>
<td>Largely descriptive with little evidence of analytical skill</td>
</tr>
<tr>
<td>Bare minimal pass 50%</td>
<td>Relevance to the title may be intermittent; the topic may be reduced to its vaguest and least challenging terms</td>
<td>A limited understanding of a narrow range of material</td>
<td>Mainly descriptive with little analytical content</td>
</tr>
<tr>
<td>Fail &lt;50%</td>
<td>Outright irrelevance to the title</td>
<td>Lack of basic knowledge necessary for an understanding of the topic</td>
<td>Inadequate description and no analysis</td>
</tr>
<tr>
<td>Classification</td>
<td>Structure</td>
<td>Originality</td>
<td>Presentation</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Outstanding/Excellent/Very Good</td>
<td>Coherently and logically structured, making use of appropriate standard formats</td>
<td>Distinctive work showing independent thought and critical judgement</td>
<td>Very well presented on good English and correct spelling and syntax; creative use of IT and inclusion of bibliography and clear instructive diagrams</td>
</tr>
<tr>
<td>70-100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good (above average) 60-69%</td>
<td>Generally coherent and logical structure</td>
<td>May contain some distinctive or independent work and some evidence of critical judgement</td>
<td>Well written, with good style, spelling and syntax, acceptable use of IT, diagrams and bibliography</td>
</tr>
<tr>
<td>Average 55-59%</td>
<td>Some attempt at using a logical structure and/or standard format</td>
<td>Sound work but showing no distinctive elements; conforming to standard patterns of approach</td>
<td>Competently written with only minor errors of spelling and syntax. Acceptable use of IT, diagrams and bibliography</td>
</tr>
<tr>
<td>Satisfactory (below average) 50-54%</td>
<td>A basic argument may be evident, but tends to lack clarity</td>
<td>Largely derivative showing little originality of approach</td>
<td>Rather poorly written with numerous lapses of spelling and syntax; poor diagrams, use of IT and bibliography</td>
</tr>
<tr>
<td>Bare minimal pass 50%</td>
<td>Little evidence of a logical structure</td>
<td>Mostly derivative</td>
<td>Poorly presented with numerous lapses of spelling, syntax and poor diagrams</td>
</tr>
<tr>
<td>Fail &lt;50%</td>
<td>No evidence of clear and logical structure</td>
<td>No originality shown</td>
<td>Garbled and negligently presented</td>
</tr>
</tbody>
</table>
5.2 Notification of assignments and examination arrangements
Because different modules will be assessed in different ways, there is no central rule for when or how assessments should be submitted. For each module, when there is an assessed piece of work to be done the module tutor will give you an assignment brief which tells what, when and how to submit the resulting work. The tutor will also give some indication of how the work will be marked. The majority of assessments will be submitted via turn-it-in on Blackboard. Most of the submitted assignments will be marked via Blackboard using Grade mark hence students will be able to see the assignment feedback online via Blackboard.

Reassessment
If you fail a module you may be offered reassessment for a maximum of 50%. However, these students, along with those who do not seek reassessment or who fail reassessment may be considered for the awards of PgCert or PgDip.

5.3 Referencing
The main referencing system chemists use is numerical (Vancouver) referencing. More information can be found in “Study and Communication Skills for the Chemical Sciences” by Overton, Johnson & Scoot which is available in the UCLan Library.

5.4 Confidential material
Within your course you are unlikely to have access to confidential information during the course. However, if you do, it is important to respect confidentiality. Any students who have to deal with confidential material will be briefed on this by their tutor at the time.

5.5 Cheating, plagiarism, collusion or re-presentation
Please refer to the information included in section 6.6 of the University Student Handbook for full definitions. The University uses an online Assessment Tool called Turnitin. A pseudo-Turnitin assignment will be set up using the School space on Blackboard to allow students to check as many drafts as the system allows before their final submission to the ‘official’ Turnitin assignment. Students are required to self-submit their own assignment on Turnitin and will be given access to the Originality Reports arising from each submission. In operating Turnitin, Schools must take steps to ensure that the University’s requirement for all summative assessment to be marked anonymously is not undermined and therefore Turnitin reports should either be anonymised or considered separately from marking. Turnitin may also be used to assist with plagiarism detection and collusion, where there is suspicion about individual piece(s) of work.

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

Candidates who are considered by the Board of Examiners to have shown exceptional levels of performance may be awarded an MSc with Distinction. Normally this would require:

(i) Pass a total of nine modules with an overall APM of 70% or better.
(ii) Obtain a percentage mark of 70% or better in the MSc Research Project module.

If the above is not achieved, the award of an MSc with Merit may be considered by the Board of Examiners. Normally this would require:
(i) Pass a total of nine modules with an overall APM of 60% or better
(ii) Obtain a percentage mark of 60% or better in the MSc Research Project module

Exit Awards

Postgraduate Diploma (PgDip)
In the event of failing to pass all modules after a reassessment you will be eligible for the award of a Postgraduate Diploma in Instrumental Analysis as long as you have achieved 120 credits.

Postgraduate Certificate (PgCert)
A Postgraduate Certificate in Instrumental Analysis may be awarded for only completing 60 credits.

Reassessment
Candidates who fail any of the modules are normally entitled to one reassessment. The conditions for passing a module are explained in the Assessment Strategy of each of the modules.

The grade allocated to a passed reassessed module will not exceed a percentage mark of 50%.

The timing of the reassessment will be determined by the Progress Review or Examination Boards.

Appeals
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.

The dates for the publication of results can be found on the academic calendar.
7. Student Feedback
You can play an important part in the process of improving the quality of this course through the feedback you give.

7.1 Student Staff Liaison Committee meetings (SSLCs)
Details of the Protocol for the operation of SSLCs is included in section 8.2 of the University Student Handbook.

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, personal tutoring 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.

Course representatives are volunteers. If you wish to be considered as a course representative, please contact the course leader.

The dates of SSLC meetings are emailed to the students directly and module tutors and lecturers will also remind students during their lectures; minutes of the meetings are made available through the chemistry blackboard site.
### 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*

<table>
<thead>
<tr>
<th>1. Awarding Institution / Body</th>
<th>University of Central Lancashire</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Teaching Institution and Location of Delivery</td>
<td>University of Central Lancashire Preston Campus</td>
</tr>
<tr>
<td>3. University School/Centre</td>
<td>Physical Sciences and Computing</td>
</tr>
<tr>
<td>4. External Accreditation</td>
<td>None</td>
</tr>
<tr>
<td>5. Title of Final Award</td>
<td>MSc Synthetic Organic Chemistry</td>
</tr>
<tr>
<td>6. Modes of Attendance offered</td>
<td>Full-time</td>
</tr>
<tr>
<td>7. a) UCAS Code</td>
<td></td>
</tr>
<tr>
<td>b) JACS Code</td>
<td></td>
</tr>
<tr>
<td>8. Relevant Subject Benchmarking Group(s)</td>
<td>Chemistry QAA Masters Degree Characteristics</td>
</tr>
<tr>
<td>9. Other external influences</td>
<td>Royal Society of Chemistry</td>
</tr>
<tr>
<td>10. Date of production/revision of this form</td>
<td>April 2017</td>
</tr>
<tr>
<td>11. Aims of the Programme</td>
<td></td>
</tr>
<tr>
<td>• To extend students' comprehension of key chemical concepts and so provide them with an in-depth understanding of synthetic organic chemistry</td>
<td></td>
</tr>
<tr>
<td>• To provide students with the ability to plan and carry out experiments independently and assess the significance of outcomes</td>
<td></td>
</tr>
<tr>
<td>• To develop in students the ability to adapt and apply methodology to the solution of unfamiliar types of problems in synthetic organic chemistry</td>
<td></td>
</tr>
<tr>
<td>• To instil a critical awareness of advances at the forefront of synthetic organic chemistry</td>
<td></td>
</tr>
<tr>
<td>• To prepare students effectively for professional employment or doctoral studies in the area of synthetic organic chemistry</td>
<td></td>
</tr>
</tbody>
</table>
### 12. Learning Outcomes, Teaching, Learning and Assessment Methods

#### A. Knowledge and Understanding

| A1. | Assess an unfamiliar problem in synthetic organic chemistry and be able to design and implement a suitable solution. |
| A2. | Present chemical information clearly and concisely |
| A4. | Effectively plan a project and record data and their critical analysis. |
| A5. | Design, plan and implement research questions to problems in synthetic organic chemistry including evaluation of hazards and environmental effects. |
| A6. | Develop general strategies for synthetic organic chemistry including the identification of additional information required and problems where there is not a unique solution. |

##### Teaching and Learning Methods

- Lectures, seminars, structured laboratory classes, practical projects

##### Assessment methods

- Exams, Laboratory reports, project report group and individual presentations

#### B. Subject-specific skills

| B1. | Select appropriate techniques and procedures for the synthesis of specific compounds. |
| B2. | Demonstrate competence in the planning, design and execution of experiments |
| B3. | Evaluate different potential solutions to an unfamiliar problem. |
| B4. | Work independently, under minimum supervision, and be self-critical in the evaluation of risks, experimental procedures and outcomes. |
| B5. | Use an understanding of the limits of accuracy of experimental data to inform the planning of future work. |

##### Teaching and Learning Methods

- Lectures, seminars, structured laboratory classes, directed reading, group and individual projects and presentations.

##### Assessment methods

- Exams, Laboratory reports, project report group and individual presentations.

#### C. Thinking Skills

| C1. | Evaluate technical and theoretical information |
| C2. | Adapt and apply methodology to the solution of unfamiliar problems. |
| C3. | Assimilate, evaluate and present research results objectively. |
| C4. | Undertake an individual research project, the outcome of which is potentially publishable. |
| C5. | Assess the success of such a project |

##### Teaching and Learning Methods

- Skills developed through seminars, data interpretation, case studies, practical work, research projects, presentations, problem solving.

##### Assessment methods

- Practical reports, essays and group and individual presentations.

#### D. Other skills relevant to employability and personal development

| D1. | Problem-solving skills including the demonstration of self-direction and originality |
| D2. | Communicate and interact with professionals from other disciplines |
| D3. | Ability to exercise initiative and personal responsibility |
| D4. | Ability to make decisions in complex and unpredictable situations |
| D5. | Independent learning ability required for continuing professional development. |
| D6. | Work independently under minimum supervision. |
| D7. | Develop and write a research project within guidelines and be able to assess the success of such a project. |

##### Teaching and Learning Methods

- Skills developed through seminars, data interpretation, case studies, practical work, research projects, presentations, problem solving.

##### Assessment methods

- Exams, Laboratory reports, project report group and individual presentations.
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>FZ4810</td>
<td>Professional Research Skills</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>FZ4006</td>
<td>MSc Chemistry Research Project</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>FZ4601</td>
<td>Separation Science and Mass Spectrometry</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>FZ4603</td>
<td>Molecular spectroscopy</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>FZ4605</td>
<td>Organic Synthetic Methods</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>FZ4802</td>
<td>Applications in Synthesis and Molecular Modelling</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>FZ4008</td>
<td>Professional Industrial Placement (O)</td>
<td>(O) optional module</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(notional)</td>
<td></td>
</tr>
</tbody>
</table>

14. Awards and Credits*

<table>
<thead>
<tr>
<th></th>
<th>Level 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc in Synthetic Organic Chemistry</td>
<td>Requires 180 credits at Level 7</td>
</tr>
<tr>
<td>MSc with Distinction, APM and MSc Chemistry Project ≥ 70%</td>
<td></td>
</tr>
<tr>
<td>MSc with Merit, APM and MSc Chemistry Project ≥ 60%</td>
<td></td>
</tr>
</tbody>
</table>

Postgraduate Diploma in Synthetic Organic Chemistry
Requires 120 credits at Level 7

Postgraduate Certificate in Synthetic Organic Chemistry
Requires 60 credits at Level 7

Optional professional placement route requires successful completion of FZ4008 which has a notional credit value of 60.

15. Personal Development Planning

PDP is embedded and monitored through the modules that make up the course, particularly the skills modules, and the personal tutor system. Students are introduced to the idea of PDP and career planning through sessions in induction week, and are provided with a PDP folder which provides information about opportunities for PDP and the School Guide to PDP called ‘Developing in all the Right Ways’ and provides a place to keep any information and/or evidence which the student wishes to keep to hand. Reflection and self-assessment on their achievements and goal setting is developed in many of the core modules and through the feedback provided on assessment coversheets. Regular meetings with personal tutors are used to discuss development and reflection.

16. Admissions criteria

Applicants will normally be required to have:

2:2 Hons Degree in Chemistry or equivalent qualifications and experience.

Applicants will be required to have a minimum level of proficiency in English Language equivalent to IELTS grade 6.5.

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

17. Key sources of information about the programme

- University website (www.uclan.ac.uk)
- School website (www.uclan.ac.uk/chemistry)
- Course Leader
- Admissions tutor
## 18. Curriculum Skills Map

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

<table>
<thead>
<tr>
<th>Level</th>
<th>Module Code</th>
<th>Module Title</th>
<th>Core (C), Compulsory (COMP) or Option (O)</th>
<th>Knowledge and understanding</th>
<th>Programme Learning Outcomes</th>
<th>Other skills relevant to employability and personal development</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL 7</td>
<td>FZ4810</td>
<td>Professional Research Skills</td>
<td>COMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FZ4006</td>
<td>MSc Chemistry Research Project</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FZ4601</td>
<td>Separation Science and Mass Spectrometry</td>
<td>COMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FZ4603</td>
<td>Molecular spectroscopy</td>
<td>COMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FZ4605</td>
<td>Organic Synthetic Methods</td>
<td>COMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FZ4802</td>
<td>Applications in Synthesis and Molecular Modelling</td>
<td>COMP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FZ4008</td>
<td>Professional Industrial Placement</td>
<td>O</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
19. Exit Awards

Learning outcomes for the award of Postgraduate Diploma in Synthetic Organic Chemistry:

A1. Assess an unfamiliar problem in synthetic organic chemistry and be able to design and implement a suitable solution.
A2. Present chemical information clearly and concisely
A3. Research information from literature/manuals/internet

B1. Select appropriate techniques and procedures for the synthesis of specific compounds.
B2. Demonstrate competence in the planning, design and execution of experiments
B3. Evaluate different potential solutions to an unfamiliar problem.

C1. Evaluate technical and theoretical information
C2. Adapt and apply methodology to the solution of unfamiliar problems.
C3. Assimilate, evaluate and present research results objectively.

D1. Problem-solving skills including the demonstration of self-direction and originality
D2. Communicate and interact with professionals from other disciplines
D3. Ability to exercise initiative and personal responsibility
D4. Ability to make decisions in complex and unpredictable situations

Learning outcomes for the award of Postgraduate Certificate in Synthetic Organic Chemistry:

A1. Assess an unfamiliar problem in synthetic organic chemistry and be able to design and implement a suitable solution.
A2. Present chemical information clearly and concisely

B1. Select appropriate techniques and procedures for the synthesis of specific compounds.

C1. Evaluate technical and theoretical information
C2. Adapt and apply methodology to the solution of unfamiliar problems.

D1. Problem-solving skills including the demonstration of self-direction and originality
Please read this Handbook in conjunction with your Course Handbook.

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/Head of School. This applies to the materials in their entirety and to any part of the materials.

This Handbook is produced centrally and locked for editing. Partner institutions only are given permission to contextualise the Handbook.
UCLan Mission statement
We create positive change in our students, staff, business partners and wider communities, enabling them to develop their full potential by providing excellent higher education, innovation and research.

UCLan Values
- The pursuit of excellence in all that we do.
- Equality of opportunity for all, supporting the rights and freedoms of our diverse community.
- The advancement and protection of knowledge, freedom of speech and enquiry.
- Supporting the health, safety and wellbeing of all.

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 on various grounds including 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. Welcome and Introduction to the University
2. Learning Resources
3. Preparing for your career
4. Student support
5. Students' Union
6. Rationale, aims and learning outcomes of the course
7. Assessment
8. Student Voice
1. Welcome and Introduction to the University
The University of Central Lancashire (UCLan) welcomes you and hopes that you will enjoy studying at UCLan and that you will find your course both interesting and rewarding. This Handbook provides you with generic University level information and the Course Handbook provides specific information about your programme of study.

1.1 Communication
The University expects you to use your UCLan email address and check regularly for messages from staff. If you send us email messages from other addresses they risk being filtered out as potential spam and discarded as unread.

1.2 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. External Examiner reports will be made available to you electronically. The School will also send a sample of student coursework to the external examiner(s) for external moderation purposes, once it has been marked and internally moderated by the course tutors. The sample will include work awarded the highest and lowest marks and awarded marks in the middle range. Details of the External Examiner associated with your course can be found in your Course Handbook.

1.3 Expected hours of study
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. Please note however that this may vary depending on your particular course and programme of study. You should therefore check your Course Handbook or contact a member of staff within the relevant School.

1.4 Attendance Requirements
Student attendance at timetabled learning activities of courses and modules is required. Notification of illness or exceptional requests for leave of absence must be made as detailed in the Course Handbook. Individual modules and/or courses may incorporate a specific attendance requirement as part of the assessment criteria for successful completion of a module.

Students with continuous unauthorised absence may be deemed to have withdrawn from the course. The date of withdrawal will be recorded as the last day of attendance. You may request a review of this decision if you have grounds in line with the Academic Appeals Procedure. Tuition fees will be charged in accordance with Appendix 2 of our Tuition Fee Policy.

You must swipe in using your student card. Each time you are asked to enter your details on the Student Attendance Monitoring system (SAM) you must remember that the University has a responsibility to keep information up to date. You must only enter your own details on the system as to enter any other names would result in inaccurate records and be dishonest. Any student who is found to make false entries, such as scanning but not attending, can be disciplined under the Regulations for the Conduct of Students.
1.5 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 purposes 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 see the University’s Data Protection Policy and Privacy Notice or contact the Information Governance Officer, Office of the University Secretary and Legal Officer, University of Central Lancashire, Preston, PR1 2HE or email DPFOIA@uclan.ac.uk.

2. Learning resources

2.1 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.

You can find the link to the Library Opening Hours here: http://www.uclan.ac.uk/students/study/library/opening_hours.php

2.2 Electronic Resources
LIS provide access to a range of electronic resources – e-journals and databases, e-books, images and texts.

3. Preparing for your career
Your future is important to us, so to make sure that you achieve your full potential whilst at university and beyond, your course has employability learning integrated into it. This is not extra to your degree, but an important part of it.

Your course will take you on a journey of development that will help you to map your personal story of your time at university.

You will be encouraged to record your learning journey so that you can demonstrate all the work-related skills you have developed, both before and during your time at UCLan. This will help you to show future employers just how valuable your degree is and the employability skills you have acquired.

- You will be given the opportunity to explore your identity, your strengths and areas for development, your values and what you want to get out of life.
- You will be able to investigate a range of options, including jobs and work experience, postgraduate study and self-employment.
- We will support you to enable you to successfully tackle the recruitment process and to develop your enterprise skills.

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

- One to one career and employability advice and guidance appointments.
• Advice on finding graduate jobs, including how to improve your CV with work placements, internships, voluntary opportunities and part-time employment.
• Workshops, seminars, and events to enhance your learning and develop your skills.
• Employer presentations and events, to give you the chance to network with potential employers and find out from them what they are looking for.

The UCLan careers portal careerEDGE contains all the information and resources you will need to help navigate your way to a successful career, including access to hundreds of graduate vacancies, placements and part-time jobs.

We are based in the entrance to Foster building and are open from 09:00-17:00, Monday to Thursday, 9:00-16:00 on Fridays. Come to see us to arrange your guidance appointment, have your CV and cover letter checked, get help in applying for a job or just to find out more about our full range of services. It’s your future: take charge of it!

UCLan Careers | Foster Building | University of Central Lancashire, Preston PR1 2HE
01772 895858
careers@uclan.ac.uk
www.uclan.ac.uk/careers

4. Student support, guidance and conduct

4.1 Student Support

"Got a Problem to Sort? Come to us for Support".

The <i> is your first point of call for all enquiries, help and advice. We provide guidance to all UCLan students whatever the query may be. We offer advice on:

• Bank and Confirmation of Study Letters
• Council Tax Exemption Certificates
• International Student Support
• Library Services and Support
• Printing and Printer Credit
• Student Financial Support
• UCLan Cards
• UCLan Financial Bursary (1st year students only)
• Student Support and Wellbeing (including Disability)

and much more.

We are based on the ground floor of the UCLan Library and open 7 days a week most of the year. Our friendly and approachable team will do their best to ensure your query is answered. Come and have a chat with us if you have a query on any aspect of student life and study.

http://www.uclan.ac.uk/students/study/library/the_i.php

If you are struggling financially or have financial concerns which may prevent you from continuing on your course, you are advised to seek advice from the University’s Finance Support Team, based in the <i>, or in the Advice and Representation Centre at the Students’ Union.
If you are finding the course challenging or cannot complete independent study and assessments on time you should consult your Academic Advisor.

4.2 Students with disabilities
You are strongly encouraged to declare your disability on your application form when you apply to study at UCLan. If you have declared this Disability Services will be in contact with you to advise you about reasonable adjustments which may be appropriate in the circumstances. You can also tell any member of staff at the University, who will ask you to sign a disability disclosure form, to let the Disability Service know that you have a disability and agree to share this information with them. Disability Services will then get in touch with you to discuss your available options. Following this you will be assigned a Disability Adviser whom you can contact should you need any further help or assistance.
https://www.uclan.ac.uk/students/health/disability_services.php

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

4.4 Health and Safety
As a student of the University you share responsibility 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.

4.5 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 towards all members of the University at all times demonstrated by using appropriate language in class, switching mobile phones / other devices off prior to attending classes, and also in your use of any social networking sites.

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.
5. 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 the Students’ Union does and is encompassed by its 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 Students’ Union is where your voice can be heard, actions taken, or campaigns launched.

Your Students’ 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 the Student Union’s dedicated staff team in the Advice and Representation Centre are on hand to help and offer impartial advice.

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

6. Rationale, aims and learning outcomes of the course

6.1 You will find information specific to your chosen course of study in your Course Handbook, in the form of a ‘programme specification’. As defined by the QAA (Quality Assurance Agency) - the regulatory body responsible for overseeing quality compliance in the Higher Education Sector - a programme specification is a concise description of the intended learning outcomes of an HE programme. It is the means by which the outcomes are achieved and demonstrated. In general, modules or other units of study have stated outcomes, often set out in handbooks provided by institutions to inform student choice. These intended learning outcomes relate directly to the curriculum, study and assessment methods and criteria used to assess performance. Programme specifications can show how modules can be combined into whole qualifications. However, a programme specification is not simply an aggregation of module outcomes; it relates to the learning and attributes developed by the programme as a whole and which, in general, are typically in HE more than the sum of the parts.

6.2 Sometimes certain aspects of courses may be subject to change. Applicants are encouraged to check information on our relevant course pages from time to time, particularly before submitting any application for their academic year of study. Material changes about a
course will be notified to you in material produced after the change is made and at the time you are made any offer of a place of study for that course. For details about changes to course information after you have accepted any offer, please see our Additional Information and Conditions of Offer.

7. 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 have been expressly agreed by the University to allow you to defer your assessment.

7.1 Dealing with difficulties in meeting assessment deadlines
Assignments must be submitted no later than the time and 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. An academic staff member, such as your Academic Advisor or Module or Course Leader, will be able to provide advice to you on how to do this. Extenuating Circumstances are defined as unforeseen, unpreventable circumstances that significantly disrupt student performance in assessment. Where students have a temporary unexpected circumstance that means that they are unable to complete a particular assignment on time the student may apply for an extension of up to ten working days.

7.2 Extensions
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. Requests for extensions should be made prior to the submission date as extensions cannot be given Retrospectively (Academic Regulations).

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

7.3 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, with both your course and your personal wellbeing, through a process called Extenuating Circumstances (see Academic Regulations and Assessment Handbook)

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 in which they apply. All evidence 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

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).

7.4 Late submissions
If you submit work late without authorisation, 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.
You may apply to appeal this decision in accordance with the University’s Academic Regulations.

7.5 Feedback Following Assessments
UCLan is committed to giving you clear, legible and informative feedback for all your assessments (Academic Regulations). You are expected to review and reflect on your feedback and learn from each experience to improve your performance as you progress through the course.

For courses (except distance learning):
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. Generic feedback may be oral, written, posted on a website or other.

For distance learning courses:
You will be provided with generic feedback for in-module formative and summative elements of assessment which contribute to a module within 20 working days of the scheduled
submission or examination date. Generic feedback on end of module assessment and dissertations will be made available within 20 days of publication of results. Generic feedback may be oral, written, posted on a website or other.

7.6 Unfair Means to Enhance Performance

The University regards any use of unfair means in an attempt to enhance performance or to influence the standard of award obtained as a serious academic and/or disciplinary offence. Such offences can include, without limitation, cheating, plagiarism, collusion and re-presentation ('unfair means').

You are required to sign a declaration indicating that individual work submitted for assessment is your own and will be able to view your Originality Report following e-submission of assessed work.

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 as set out below:

In the case of a single offence of unfair means in an undergraduate or postgraduate assessment:

- the appropriate penalty will be 0% for the element of assessment, and an overall fail for the module (whether or not the resulting numeric average mark is above or below the minimum pass mark). The affected element of the assessment must be resubmitted to the required standard. The mark for the module following resubmission will be restricted to the minimum pass mark. Where unfair means is detected for the first time on a reassessment for an already failed module, no further reassessment for the module will be permitted, and the appropriate fail grade will be awarded.
In the event of a repeat offence of unfair means (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.

7.7 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;
   that the assessment procedure and/or examinations have not been conducted in accordance with the approved regulations (this fourth ground will not be relevant to an appeal against a decision relating to an interruption or discontinuance of study. Such an appeal should be based on one or more of the three grounds above.

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.

8. Student voice

You can play an important part in the process of improving the quality of your course through the feedback you give. In addition to the ongoing discussion with the course team throughout the year, there are a range of mechanisms for you to feed back about your experience of teaching and learning which are outlined below. Where appropriate, 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 at levels 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.

8.1 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, to voice their opinions and to share positive practice with the course team, primarily at 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 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 your School President is or more about the role visit the Students’ Union website or email: coursereps@uclan.ac.uk

8.2 Student Staff Liaison Committee Meetings (SSLC)
The purpose of a SSLC meeting is to improve courses, to have an open discussion and respect each other’s views, to share good practice where identified, to provide opportunity for students to feedback to staff about their course and student experience, to regularly review the course to improve its development, and to jointly work together to action plan against issues raised.

There will normally be one meeting per semester which will last no more than 2 hours. Your School President will Chair the meetings with an academic co-Chair, using guidelines and will provide a record of the meeting with any decisions and / or responses made and / or actions taken as a result of the discussions held. A standard agenda and action grid template will be
used. Course representatives will gather feedback from students and communicate this to the School President in advance of the meetings.

8.3 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 University’s Student Complaints Procedure is intended to provide an accessible, fair and straightforward system which ensures an effective, prompt and appropriate response. Click on this link for more information University’s Student Complaints Procedure

If you are a student registered for a University award at a partner college, who is dissatisfied with the provision at the college, you should pursue your complaint in accordance with the college’s complaints procedure in the first instance. In the event of continuing dissatisfaction when you have completed the college’s procedure, you will be entitled to submit your complaint to UCLan under stage 3 of the procedure.