Course Handbook
MSc Resource, Energy and Environmental Management
Postgraduate Diploma Resource, Energy and Environmental Management
Postgraduate Certificate Resource, Energy and Environmental Management

2018-2019
Course Leader: Dr Karl S Williams
School of Forensics and Applied Science

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

Contents

1. Welcome to the course

Welcome to the MSc in Resource, Energy and Environmental Management (REEM). We hope that you will enjoy your studies, and we want this to be a positive learning experience for you. The course will involve some hard work, but we hope that you find it interesting, challenging and enjoyable! We know that you can succeed: we want you to succeed and will provide you with the learning and support environment that will assist with this. Good luck!

When you first start this course you will receive a lot of information. Much of this will naturally pass you by, so remember …if in doubt ask!

This Handbook is designed to introduce you to the MSc in REEM and to act as a guide to the more formal aspects of this course, including methods of assessment and teaching. We hope that you find it easy to read and suggest that you keep it as a source of reference throughout the year. On enrolment you will also be given a copy of the University Regulations.
Further information and background can be found on the Centre for Waste Management website: http://www.uclan.ac.uk/cwm

1.1 Rationale, aims and learning outcomes of the course

This Master's degree programme is primarily geared towards professionals who have a degree in another discipline and want to obtain a combined knowledge of REEM. The underlying ethos is that Resource, Energy and Environmental management (REEM) requires scientific and managerial expertise as it changes focus in industry sector implementation. These sectors can cover a wide diversity of industries from waste to resource recovery to the generation of energy from fossil fuels to sustainable renewable energy. The impact of industries and their activities in promoting sustainable working environments and how these can be integrated into lessening impacts on natural environment through exploration on moving towards the best and greener use of resources, and their optimal management in the long term.

It is designed to enhance your career prospects by the application of scientific expertise to practical, business and managerial situations, and the understanding, implementation and response to rapidly evolving policies, interventions and market opportunities.

The flexibility of the course delivery allows full-time students to partake in a relatively rapid expansion of their knowledge base, whilst the part time route allows those in employment within related industries to support their practical knowledge with academic rigour. The programme will enable you to develop your own interests within a structured and integrated programme, developing management skills underpinned by a sound technical knowledge.

Specifically, this course aims:

- To enhance students' critical approach to theories, techniques and methods in application to resource, energy and environmental management. This will provide an applied focus for postgraduate study with a strong professional and industrial orientation.
- To provide the skills and tools required to critically implement resource and environmental strategies in a variety of situations.
- To impart a cross-disciplinary perspective on contemporary environmental management issues and processes, including Sustainable Development, Climate Change, Energy Security and Resource Management.
- To equip students with a variety of critical approaches regarding how people and organisations adopt resource, carbon and environmental legislation in their decision-making
- To enhance students' employability and their ability to liaise effectively with resource management as well as environmental specialists

- To provide students with the opportunity to develop their critical understanding of environmental management and its constituent processes from both a theoretical and practical perspective.

This course will equip you with a wide range of skills appropriate for energy and resource managers in the twenty-first century. It addresses the following skills and knowledge areas:

Subject knowledge and understanding

Students will be able to:

- Communicate knowledge, understanding and critical evaluation of the body of knowledge and research relating to resource, energy and environmental management
- Utilise and interpret information in an appropriate fashion
- Critically evaluate research methodology and documenting of research/field work
- Critically evaluate the potential for future resource management Subject-specific skills

Students will be able to:

- Correlate and analyse information in order to synthesise it into a form that enables complex environmental management situations to be evaluated and addressed
- Assess the application of appropriate techniques and skills to allow detailed investigation into relevant resource and energy issues
- Critically evaluate and adapt sustainable strategies in light of different types of resources, energy and environmental management options

Thinking Skills
- The application and combination of technical, policy and business knowledge to problem solving
- Obtaining, synthesising and applying information from a range of sources
- The application of management techniques to project appraisal and planning.
- Plan, implement and report on an extended programme of individual research into a contemporary Health, safety and environmental management issue, problem or field of study

Other Skills

- Written communication skills (technical reports, management data and plans)
- Numerical skills
- Ability to learn through reflection on experiences on the programme in order to facilitate personal and professional development
- Application of key personal, social, technical and other transferable skills relevant to employment within a management context, including communication, team-working, and critical and creative thinking.
- Oral communication skills

> **As well as providing you with the above skills, there is another issue that is important - we hope that you enjoy yourself learning about energy and environmental management**

The course is under review for accreditation to the Institute of Environmental Management and Assessment (IEMA) and the Chartered Institute of Waste Management (CIWM).

1.2 Course Team

The School of Forensic and Applied Science is located in Kirkham Building and in Firth Building. Centre for Waste Management is presently located in KM110

Contact details for the Health & Safety and Environment Management team

Name and research interests	Role	Room	Email	Direct phone no. (all 01772)
Dr Karl S Williams Engineering, Processing, Energy Production and Design Green Chemistry Technology Environmental Assessment	Course Leader and Module Tutor	KM108	kswilliams@uclan.ac.uk	893496
Dr Tim McDonnell Waste and Environmental Legislation	Module Tutor	KM107	tjmcdonnell@uclan.ac.uk	893524
Dr Chris Lowe	Module Tutor	KM102	cnlowe@uclan.ac.uk	893960
To be appointed	Module Tutor			

Note. If using an internal phone you only need to dial the extension number, i.e. the last four digits of the numbers above

Technical Staff

Siobhan Quigg	Technician	KM126	SMQuigg1@uclan.ac.uk	893490

1.3 Expertise of staff

The course team has the disciplinary breadth and depth necessary to deliver this wide ranging programme. Please see their lists of publications and other personal details in their CVs which can be accessed through the School website. A brief summary is:

Dr Karl S Williams, Course Leader and Module Tutor:

Director of Centre for Waste Management. Post graduate certificate in Academic Practice (PGCAP) Brighton University Master of Technology (MTech) Brunel University

PhD University of Leeds BEng (Hons) in Materials Science and Engineering University of Leeds, Chartered Engineer: Engineering Council (CEng) Member of the Institute of Materials, Minerals and Mining (MIMMM) Associate Member of the Institute of Environmental; Management and Assessment (AMIEMA) Member of Chartered Institution of Waste Management MCIWM and Chartered Waste Manager Fellow of Higher Education Academy FHEA Accreditation as a teacher in Higher Education (SEEDA)

Dr Tim McDonnell, Module Tutor:

BSc (Hons) in Biomedical Electronics Salford University, MSc in Electrical and Electronic Engineering Salford University, PhD in Environmental Management University of Central Lancashire. Fellow of the Higher Education Academy (FHEA), Member of Chartered Institution of Wastes Management (MCIWM), Member of the Society for the Environment (CEnv). PhD in Environmental Management

Dr Chris Lowe, Module Tutor:

BSc (Hons) Biology, MSc Environmental Biology. PhD thesis on the use of soil fauna (earthworms) in land restoration. Member of UCLan Earthworm Research Group and Centre for Waste Management. Graduate member of the CIWM (GMCIWM) and Associate Member of the Institute of Environmental; Management and Assessment (AMIEMA)

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

Course Administration Service 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.

Foster Building
Forensic and Applied Social Sciences
Pharmacy and Biomedical Sciences
Psychology
Physical Sciences
telephone:01772 891990/1991
email:FosterHub@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.

If you do not receive a reply to an email within a day please resend the email and leave a message on the member of staff's phone. Also check with the School OfficHub to see if the member of staff is available. Most lecturers spend time working away from Preston and it is often not possible to reply to emails when doing this. Email is not 100% reliable so a letter or note in the lecturer's mail box in the Hub may be a useful back up. If you find it difficult to contact a member of staff it may be best to arrange a meeting, or to find a time when you can speak on the phone. Information will also be provided using NOTIFICATION in Blackboard

1.7 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. 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.

Dr Jonathan Nixon
Senior Lecturer
School of Mechanical, Aerospace and Automotive Engineering
Faculty of Engineering, Environment & Computing
Coventry University

2. Structure of the course
2.1 Overall structure
The flexibility of the course delivery allows full-time students to partake in a relatively rapid expansion of their knowledge base, whilst the part time route allows those in employment within the resource, energy and environmental management areas of business, commerce government and regulation to support their practical knowledge with academic rigour. The programme will enable you to develop your own interests within a structured and integrated programme, developing management skills underpinned by a sound technical knowledge.

The course consists of 9 modules. The modules have been developed in close consultation with professional bodies operating within industry and environmental management and represent the current and future requirements of these organisations. There are two other exit awards, a Postgraduate Certificate and a Postgraduate Diploma. The requirements for these qualifications and also for the MSc are described in the following table. The nine modules are listed later in this Handbook, with a provisional timetable for the course available at: https://apps.uclan.ac.uk/TimeTables .

2.2 Modules available

Each module is a self-contained block of learning with defined aims, learning outcomes and assessment. A standard module is worth 20 credits. It equates to the learning activity expected from one sixth of a full-time undergraduate year. Modules may be developed as the course is delivered to reflect the changing professional environment.

Level	Module Code	Module Title	Credit rating
Level 7	NT4039	Master's Project	40
	NT4053	Skills for Business and Research	20
	NT4040	Resources: Life Cycle Analysis and Carbon Accounting	20
	NT4010	Environmental Legislation and Policy	20
	NT4009	Waste Treatment and Low Carbon Technologies	20
	NT4008	Waste and Resource Management Solutions	20
	NT4007 PLUS	Environmental Management within Organisations	20
	NT4038 Or	Carbon and Energy Management	20
	NT4054	Independent Scholarly Activity	20

For those students who wish to take the MSc the optional module NT4054 Independent Scholar Activity is for students who have already taken **NT3038** as part of their undergraduate programme at UCLan as they cannot take NT4038 Carbon and Energy Management. All students take all the modules (total 180 credits) **except** NT4054 Independent Scholarly Activity

For those students who wish to take a PGCert they can take any combination of modules (total 60 credits) **except** for NT4039 Master Project and NT4053 Skills for Business and Research
For those students who wish to take a PGDip they can choose any combination of modules (total 120 credits) **except** NT4039 Master Project and NT4053 Skills for Business and Research.

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.
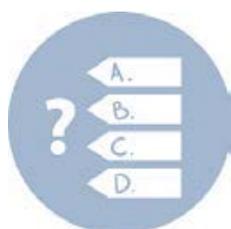
2.3 Course requirements

There are no specific course requirements for those entering with an undergraduate degree. For those entering through the industrial experience route- Accreditation of Prior Learning- for particular modules taken as CPD then please see table below for contacting the correct APL Unit

What type of credit?	Who is responsible for inputting?	When is inputting done?	What paperwork is required to support credit input?
Admission with credit	Admissions office	After enrolment and before end of first semester (see note)	APCL 1 Tutor Authorisation Advanced Entry* APEL 1 Tutor Authorisation Advanced Entry
Admission with credit international students	International admissions team	After enrolment and before end of first semester (see note)	APCL 1 Tutor Authorisation Advanced Entry* APEL 1 Tutor Authorisation Advanced Entry
Admission with credit to courses not processed by Admissions office	School Office	After enrolment and before end of first semester (see note)	APCL 1 Tutor Authorisation Advanced Entry APL School Input – Bulk processing
Tariffed/Articulated APL	School	After enrolment and before end of first semester	APL School Input – Bulk Processing
What type of credit?	Who is responsible for inputting?	When is inputting done?	What paperwork is required to support credit input?
Post enrolment APCL	APL Unit	On completion of application process	APCL 2 Application & Authorisation Elective Credit claim APCL 2a Application & Authorisation Specific Credit claim APCL 3 Academic authorisation & credit award justification
Post enrolment APEL	APL Unit	On application and subsequently on approval of result by module board	APEL 3 Application & Tutor Authorisation Specific/General Credit claim APEL 4 Academic Authorisation & credit award justification

Table 1:APL Contacts

2.3 Progression Information

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.

2.4 Study Time
2.4.1   Weekly timetable

A timetable will be available once you have enrolled onto the programme, through the Student Portal.

Each module is delivered over a six week period with attendance required for 1 day per week. The module will be delivered between 10:00-(17:00)18:00 depending on field trips/ content and module. The day of attendance will be either Tuesday and/or Thursday depending on the module or if the part-time option is being taken.

Part-time students will take Modules which have contact days on a Thursday in Year 1 and Tuesday in Year 2. However, the course has been designed to be flexible and a combination of both can be arranged- please contact the course leader directly to discuss this.

2.4.2   Expected hours of study

20 credits is a standard module size and equals 200 notional learning hours.

The normal estimate of overall workload for successful study is 40 hours contact time and 160 hours independent study per module credit. Class and lecture attendance requirements vary between modules. Many modules require some 'off spot' attendance, e.g. occasional fieldtrips. It is usual to ask students to prepare for seminars and workshops by locating and reading appropriate material. Students may be asked to leave seminars and workshops, including assessed sessions, if they have not done the required preparation. They may also be required to leave any fieldwork and laboratory sessions if they do not have appropriate PPE, footwear or clothing.

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 to:

Dr Karl S Williams kswilliams@uclan.ac.uk 01772 893496

The Visas and Immigration (UKVI)UK Border Agency (UKBA), Points Based System (PBS) - you MUST attend your course of study regularly; under PBS, UCLan is obliged to tell UKBA UKVI if you withdraw from a course, defer or suspend your studies, or if you fail to attend the course regularly.

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.

Each time you are asked to enter your details on Student Attendance Monitoring (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. You can check your own attendance through myUCLan.

3. Approaches to teaching and learning

3.1 Expertise of staff

The course team has the disciplinary breadth and depth necessary to deliver this wide ranging programme. This is an applied course and all staff are engaged with both research and knowledge transfer activities. Research informed teaching underpins all of the modules and they are supported through case studies and live projects. Site visits and engagement with industrial experts exposes students to current thinking and practices across a range of sectors. The support of the Institute of Environmental Management and Assessment gives the students a clear pathway towards professional recognition and career development.

3.2 Learning and teaching methods

3.2.1 How Will I Learn?

To learn properly, you have to **actively** engage with the material – you have to work at understanding it, and think about what you're doing. This means you have to become aware of your own learning process. Different people have differing learning styles, and you need to identify yours. If you're used to learning by rote, or just doing what an instructor tells you, it may take you a while to get used to it. But the learning is *your* responsibility; it's *not* a case of us teaching you how to learn. Each of you learns in your particular way, depending on your experience, aptitudes and interests. We'll try to give you information and guidance that we think will help you, but you have to consider how it works for you, and let us know if you think you're having any difficulty.

So think about what we give you, make sure you understand it in your own terms, and ask questions if you don't understand or are just simply confused. If you want to discuss this then talk to other students, use the discussion group or contact your tutor.

3.2.2 Learn Actively – Reflect on What You're Learning

If you have not studied for some time you may need to spend some extra time studying to keep up. It is important to spend this extra time when it is required, since the course continually builds upon previously developed ideas and skills. Extra input early in the course will make things a lot easier for you!

3.2.3 Study Time

The following advice should help you to organise your study time:

a) Try to find a place to work that is physically comfortable but free from distractions. The best working environment has ambient background light with brighter light from a desk lamp for your working space.

b) Spend two or three minutes at the beginning of each session reviewing what you are planning to do in that session and write brief notes or headings on what you will be doing.

c) Aim to work for a specified length of time before taking a break. Do not try to study for too long at once. Frequent short breaks are best, and coffee may help!

d) Read through your notes, annotate them and highlight the key points. This will help you focus on the most important points and act as an aide memoir when reading through the notes more rapidly a second time.

e) You need to supplement the information in the taught sessions with readings from other sources such as books and journals. These provide essential material for deepening your understanding, provide references for assignments, and provide material for answering questions in examinations.

f) You should allocate a proportion of your study time to your assignments and practicing for examinations. Tackling exercises and problems is an essential part of learning and understanding.

3.3 Study skills
At UCLAN there are many ways of supporting your study with us. There are a variety of services to support students and these include:
WISER http://www.uclan.ac.uk/students/study/wiser/index.php

3.4 Learning resources
3.4.1 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.
3.4.2 Electronic Resources
LIS provide access to a huge range of electronic resources – e-journals and databases, e-books, images and texts. All material for this course is available on E-Learn via Blackboard

3.5 Personal development planning
The way you bring together subject knowledge and study skills, and develop the graduate skills listed above, constitutes your personal development. Most of the detail of PDP is given in *Student's Guide to FAS* and more concisely in the *PDP* section in the programme specification at the end of this course hand book.

What you need to know now is that PDP takes many forms, and is there to help you carry out your studies and to enable you to make the most of these in your future life. PDP is partly achieved through 'reflection': how you make the most of your experiences (good and bad). It is partly about ensuring that your degree demonstrates skills such as team-working, effective communication and problem solving. Employers may require evidence of this, and identifying opportunities to show them it is itself something of a challenge. PDP seeks to provide you with useful information. Our career workshops and on-line material should help you with some of the initial hurdles, and the applied, vocational nature of HSEM will give you a useful boost.

There are three main elements to PDP in REEM. The first is the Structured Learning Environment, this might be a lecture, workshop seminar or fieldwork. The Structured Learning Environment is the place where you and your lecturers are face to face and where you encounter data and evidence that build up into your knowledge of the subject. The second important element is *Feedback,* responses from your lecturers and other students that let you know how successful you have been at learning and developing as a geographer (and as an individual). The final very important element is *Reflection.* This is the process of you thinking through and understanding how and why you have developed and learned as you did - what you have done well at and what needs further work. Each of these three elements are supported at every level of the master's programme as shown in the table below.

Level	Structured Learning Environment	Feedback	Reflection
7	Academic knowledge of the subject	Assessment (feed forward) and in seminars	Careers workshop, CV construction
	Leading discussions – seminars	Fieldwork – peer feedback	Student diaries and reflective reports
	Group work – adopting roles within a group	On site and through PT system	PT meetings
	Independent research and critical evaluation skills	Master Project supervisor meetings; assessment	Master Project

3.6 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 at every level. This is not extra to your degree, but an important part of it which will help you to show future employers just how valuable your degree is. These "Employability

Essentials" take you on a journey of development that will help you to write your own personal story of your time at 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, further postgraduate study to PhD 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.

Graduates from these programmes have developed careers throughout the waste / environmental management industry. Recent employers include consultancy firms, local government, NGOs, contractors, landfill site operators and the Environment Agency. This strong employment record underlines the School's philosophy in delivering programmes, which offer high quality applied science provision within a multidisciplinary environment.

4. Student Support

The School prides itself at being in the vanguard of Student Support at this University; for over ten years we have proactively sought to ensure that new students engage with us and their potential nurtured. The moment you enrol you will be placed into a Student Support Group, with between 6 and 8 other new students, Together you will be provided with opportunities to work, rest and play, thus providing mutual support at the point of greatest need. Make sure that you seize every opportunity to develop those 'team player' skills which will be so important to a successful career in the School of Forensic and Applied Science.

The University offers a comprehensive range of support services to ensure that when you need help it's there for you. Student Services provide an Advisory and Counselling Centre to help and the Health Centre can provide you with a caring and confidential service on a range of medical maters, the Student Union also offers advice. We'll also make sure that you receive all the academic support you might need:

4.1 Academic Advisors

Assigned on your very first day with us, someone you'll work closely with throughout your degree. If you've any problems getting on with your studies your Academic Advisor will help you resolve them. You can make an appointment to see them at any mutually convenient time. As this is a Master's level course no formal meetings will be arranged

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. Access to field trips and site visits will be accommodated where possible as some sites are industrial sites with their own restrictions outside those of the university.

The School Disability Officer is
Dr Mark Toogood
Kirkham 106
Mtoogood@uclan.ac.uk
Telephone 01772 (89)3528

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
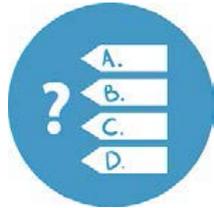
5.1 Assessment Strategy

The course makes use of a range of assessment strategies from in class presentations to on-line activities as well as the more traditional essays and an individual projects. Some of the assessments will be undertaken in groups or individually. The different methods are to thoroughly test your knowledge of the subjects and your ability to apply that knowledge in real world situations.

5.2 Notification of assignments and examination arrangements

All assessment deadlines will be clearly stated within the Module Information Packs as well as being shown on E-learn (Blackboard). All assessments will be via electronic submission with the deadline for submission being 23:59 on a particular date. The marking criteria for each assignment will be explained by individual module tutors and where appropriate will be available on-line. All assignments will need to be uploaded additionally to "Turn-it-in".

5.3 Referencing

The referencing style to be used is Harvard. A reference guide is available on E-learn. All students who are unfamiliar with this style of referencing are strongly advised to download the reference manual. Failure to reference correctly has serious consequences (please see section 5.7). Referencing will be covered during Induction.

5.4 Confidential material

Any students undertaking research which includes personal data have both an ethical and legal responsibilities to respect confidentiality and maintain the anonymity of individuals and organisations within their assignments.

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.

Three levels of awards are obtainable and together with the levels of credits required and achievement levels are described in the following table. The complete descriptions for the nine modules are provided later in this Handbook.

Awards	Credits Required	Distinction	Merit	Pass
Masters Degree Resource Energy and Environmental Management	Requires 180 credits at Level 7.	For the award of **Distinction** overall APM of ≥70% must be achieved	For the award of **Merit** overall APM of ≥60% must be achieved	For the award of **Pass** overall APM of ≥50% must be achieved
Postgraduate Diploma Resource Energy and Environmental Management	Requires 120 credits at level 7	**Distinction** overall APM of ≥70% must be achieved	For the award of **Merit** overall APM of ≥60% must be achieved	For the award of **Pass** overall APM of ≥50% must be achieved
Postgraduate Certificate Resource Energy and Environmental Management	Requires 60 credits at level 7	**Distinction** overall APM of ≥70% must be achieved	For the award of **Merit** overall APM of ≥60% must be achieved	For the award of **Pass** overall APM of ≥50% must be achieved

7. Student Feedback

You can play an important part in the process of improving the quality of this course through the feedback you give. The course team encourage student feedback in all areas and recognise that additional items for discussion may also be raised:

- 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.
- Other aspects of University life relevant to student experience e.g. resources, IT, library;
- Any other issues raised by students or staff.

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.

8. Appendices

8.1 Programme Specification(s)

UNIVERSITY OF CENTRAL LANCASHIRE

Programme Specification

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

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

1.	**Awarding Institution / Body**	University of Central Lancashire
2.	**Teaching Institution and Location of Delivery**	University of Central Lancashire Preston campus
3.	**University School/Centre**	School of Forensic and Applied Sciences
4.	**External Accreditation**	
5.	**Title of Final Award**	MSc Resource, Energy and Environmental Management Postgraduate Diploma Resource, Energy and Environmental Management Postgraduate Certificate Resource, Energy and Environmental Management
6.	**Modes of Attendance offered**	Full Time, Part-time
7a)	**UCAS Code**	
7b)	**JACS Code**	F751 and F810
7c)	**HECoS Code**	101078 and 100408
8.	**Relevant Subject Benchmarking Group(s)**	Master degree in business and Management 2007 and Earth Science, Environmental Sciences and Environmental Studies 2007 http://www.qaa.ac.uk/search-centre/results#k=Master%20environmental%20science
9.	**Other external influences**	Chartered Institution of Water and Environmental Management (CIWEM) Institution of Occupational Safety and Health (IOSH)
10.	**Date of production/revision of this form**	**February 2018**

11. Aims of the Programme

- To enhance students' critical approach to theories, techniques and methods in application to resource, energy and environmental management. This will provide an applied focus for postgraduate study with a strong professional and industrial orientation.
- To provide the skills and tools required to critically implement resource and environmental strategies in a variety of situations.

• To impart a cross-disciplinary perspective on contemporary environmental management issues and processes, including Sustainable Development, Climate Change, Energy Security and Resource Management.
• To equip students with a variety of critical approaches regarding how people and organisations adopt resource, carbon and environmental legislation in their decision-making
• To enhance students' employability and their ability to liaise effectively with resource management as well as environmental specialists
• To provide students with the opportunity to develop their critical understanding of environmental management and its constituent processes from both a theoretical and practical perspective.

12. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

Students will be able to:

A1. Communicate knowledge, understanding and critical evaluation of the body of knowledge and research relating to resource, energy and environmental management

A2. Utilise and interpret information in an appropriate fashion

A3. Critically evaluate research methodology and documenting of research/field work

A4 Critically evaluate the potential for future resource management

Teaching and Learning Methods

Teaching will be through lectures, case studies, seminars and site visits supported by materials developed by external experts. The modules will provide a wide range of approaches to teaching and learning being visual and audio. The project allows for student centred study, developing a high degree of Masters level research skills appropriate to their strengths. The Independent Scholarly Activity module allows students to direct their own area of knowledge

Assessment methods

A variety of assessments including essays, reports and presentations thoroughly test the students' knowledge of the subjects and their ability to apply that knowledge. There will be formative assessment across all modules to support student learning and personal development.

B. Subject-specific skills

Students will be able to:

B1. Correlate and analyse information in order to synthesise it into a form that enables complex environmental management situations to be evaluated and addressed

B2. Assess the application of appropriate techniques and skills to allow detailed investigation into relevant resource and energy issues

B3. Critically evaluate and adapt sustainable strategies in light of different types of resources, energy and environmental management options

Teaching and Learning Methods

Teaching will be through lectures, case studies, seminars and site visits supported by materials developed by external experts.

The project allows for student centred study, developing a high degree of masters level research skills appropriate to their strengths.

The project allows students to develop a detailed knowledge in a particular aspect of health, safety and environmental management, or related environmental issues.

Assessment methods

A variety of assessments including essays, reports, presentations thoroughly test the students' knowledge of the subjects and their ability to apply that knowledge.

C. Thinking Skills

C1. The application and combination of technical, policy and business knowledge to problem solving

C2. Obtaining, synthesising and applying information from a range of sources

C3. The application of management techniques to project appraisal and planning.

C4. Plan, implement and report on an extended programme of individual research into a contemporary commercial, resource, energy and environmental management issue, problem or field of study

Teaching and Learning Methods

Various methods will enhance the students' thinking skills, including case studies, allowing application of knowledge to real-life scenarios. As a postgraduate programme, this will build on expertise acquired in previous graduate education. It also provides opportunities for professionals with experience of within industry to expand their professional skill base. It will also assist in contextualising their own expertise in an academic context, and for continuing professional development (CPD).

Assessment methods

A variety of assessments: individual and group reports, journal articles; group presentations; critical review of research publications; in class tests, project research proposal and Masters Project, which involves considerable analytical skills and also the ability to synthesize complex information.

D. Other skills relevant to employability and personal development

D1.   Written communication skills (technical reports, management data and plans)
D2.   Numerical skills
D3.   Ability to learn through reflection on experiences on the programme in order to facilitate personal and professional development
D4.   Application of key personal, social, technical and other transferable skills relevant to employment within a management context, including communication, team-working, and critical and creative thinking
D5.   Oral communication skills

Teaching and Learning Methods

There will be opportunities to develop IT, writing and presentation skills in assignments. Feedback will improve the students' presentation and other transferable skills. The project will involve considerable time management and enhance their ability to carry out an in depth investigation on the environmental related topic.

Assessment methods

A variety of assessments including essays, reports and presentations thoroughly test the students' knowledge of the subjects and their ability to apply that knowledge.

13. Programme Structures*				14. Awards and Credits*
Level	**Module Code**	**Module Title**	**Credit rating**	
Level 7	NT4039	Master's Project	40	**Master of Science Resource Energy and Environmental Management** Requires 180 credits at Level 7. (Including NT4038 or NT4054)
	NT4053	Skills for Business and Research	20	
	NT4040	Resources: Life Cycle Analysis and Carbon Accounting	20	
	NT4010	Environmental Legislation and Policy	20	**Postgraduate Diploma Resource Energy and Environmental Management** Requires 120 credits at level 7 (including any combination except NT4039 and NT4053)
	NT4009	Waste Treatment and Low Carbon Technologies	20	
	NT4008	Waste and Resource Management Solutions	20	
	NT4007	Environmental Management within Organisations	20	**Postgraduate Certificate Resource Energy and Environmental Management** Requires 60 credits at level 7 (including any combination except NT4039 and NT4053)
	PLUS NT4038 OR	Carbon and Energy Management	20	
	NT4054	Independent Scholarly Activity	20	

15. Personal Development Planning

The objectives of Personal Development Planning are embedded within the ethos and disciplinary and vocationally relevant content of the programme. Academic advisors will be assigned to all students and will assist them in developing and implementing their own Personal Development Plans. These seek to build on and enhance students' skills of: reflection on their academic, personal and professional development, increase self awareness of individual skills, qualities, attitudes and capabilities. This will improve their learning and performance by encouraging and

enabling student to take responsibility for their own development and further develop the necessary skills for independent learning. By the completion of their programme of study, and in the process of achieving this objective, students should be able to identify their own strengths, weaknesses and needs and direction for change; set goals and plan action for developing, monitoring and reviewing their own progress; compile their own records of learning experiences and achievement, including progress reviews, personal reflections and action plans; plan realistically for their career progression and manage their own career development and lifelong learning.

Throughout the course formative assessment will be used to enable the development of these skills. The induction programme for the course includes formative activities related to essay and report writing. Feedback will enable students to build on their knowledge and skills in preparation for assessments. Within modules there is formative assessment linked to oral presentations and research skills. This will again enable students to develop the required skills in preparation for the range of course assessment.

All of this is facilitated by the pragmatic and purposeful nature of the School Of Forensic and Applied Sciences, by their numerous points of contact with the 'world of work', especially relating to health safety and environmental management, and by students' engagement with issues of policy, politics and business.

16. Admissions criteria *
(including agreed tariffs for entry with advanced standing)
*Correct as at date of approval. For latest information, please consult the University's website.

UK honours degree or its international equivalent (at least Lower Second Class) or professional qualification deemed to be honours degree (2/2) equivalent

Applicants who do not satisfy the standard minimum entry requirement can be admitted on the basis of equivalent prior experience or learning details of which can be found at:
http://www.uclan.ac.uk/information/services/sss/accreditation/index.php

*The course is subject to the **University's Admissions Policy & Code of Practice** which can be accessed at the following link:*
http://www.uclan.ac.uk/information/services/sss/admissions/index.php

For students who do not have English as their first language or where their degree has not been studied in the English language, a score of at least 6.5 on IELTS (or equivalent) is required**.**

17. Key sources of information about the programme

- **Fact Sheet (available on UCLan Website)**
- **University Prospectus**
- **Professional Bodies for information:** Chartered Institution of Wastes Management, Institute of Environmental Management and Assessment, Institution of Occupational Safety and Health

18. Curriculum Skills Map

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

Level	Module Code	Module Title	Core (C), Compulsory (COMP) or Option (O)	Knowledge and understanding				Subject-specific Skills			Thinking Skills				Other skills relevant to employability and personal development				
				A1	A2	A3	A4	B1	B2	B3	C1	C2	C3	C4	D1	D2	D3	D4	D5
Level 7	NT4039	Master's Project	Comp	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	NT4053	Skills for Business and research	Comp	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓		✓	✓	✓
	NT4040	Resources: Life Cycle Analysis and Carbon Accounting	Comp		✓		✓		✓	✓	✓	✓	✓		✓	✓			✓
	NT4010	Environmental Legislation and Policy	Comp	✓	✓			✓			✓	✓	✓		✓			✓	✓
	NT4009	Waste and Low Carbon Technologies	Comp	✓	✓		✓				✓	✓	✓		✓			✓	
	NT4008	Waste and Resource Management Solutions	Comp	✓	✓		✓	✓	✓	✓		✓			✓		✓	✓	
	NT4007	Environmental Management within Organisations	Comp	✓	✓		✓		✓	✓		✓			✓			✓	
	NT4054	Independent Scholarly Activity	O	✓			✓	✓	✓			✓			✓		✓	✓	
	NT4038	Carbon and Energy Management	O	✓		✓		✓		✓		✓			✓				

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

19. LEARNING OUTCOMES FOR FINAL and EXIT AWARDS:

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

For example, for a standard BA/BSc (Hons) award the exit award learning outcomes for CertHE (Level 4) and DipHE (Level 5), BA/BSc (Level 6) should be included; for a postgraduate Masters, this would normally be PGDip and PGCert.

Learning outcomes for the award of: Post Graduate Certificate in Resource Energy and Environmental Management

A1. Communicate knowledge, understanding and critical evaluation of the body of knowledge and research relating to resource, energy and environmental management
A2. Utilise and interpret information in an appropriate fashion
A3. Critically evaluate research methodology and documenting of research/field work

B1. Correlate and analyse information in order to synthesise it into a form that enables complex health and safety management situations to be evaluated and addressed
B2. Assess the application of appropriate techniques and skills to allow detailed investigation into relevant environmental management issues
B3. Critically evaluate and adapt sustainable strategies in light of different types of resources and environmental management options

C1. The application and combination of technical, policy and business knowledge to problem solving
C2. Obtaining, synthesising and applying information from a range of sources
C3. The application of management techniques to project appraisal and planning

D1 Written communication skills (technical reports, management data and plans)
D4 Application of key personal, social, technical and other transferable skills relevant to employment within a management context, including communication, team-working, and critical and creative thinking
D5. Oral communication skills

Learning outcomes for the award of: Post Graduate Diploma in Resource Energy and Environmental Management

A1 Communicate knowledge, understanding and critical evaluation of the body of knowledge and research relating to resource and environmental management
A2. Utilise and interpret information in an appropriate fashion
A3. Critically evaluate research methodology and documenting of research/field work
A4 Critically evaluate the potential for future resource management

B1 Correlate and analyse information in order to synthesise it into a form that enables complex health and safety management situations to be evaluated and addressed
B2. Assess the application of appropriate techniques and skills to allow detailed investigation into relevant environmental management issues
B3. Critically evaluate and adapt sustainable strategies in light of different types of resources and environmental management options

C1 The application and combination of technical, policy and business knowledge to problem solving
C2. Obtaining, synthesising and applying information from a range of sources
C3. The application of management techniques to project appraisal and planning

D1   Written communication skills (technical reports, management data and plans)

D4   Application of key personal, social, technical and other transferable skills relevant to employment within a management context, including communication, team-working, and critical and creative thinking

D5.   Oral communication skills