

University of the West of Scotland

Postgraduate Programme Specification

Session: 2023/24

Last modified: 14/04/2023 15:21:06

Status: Pending

Named Award Title:	MSc Waste & Resource Mgmt (Prof. Practice Avail)
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Award Title for Each Award:	MSc Waste & Resource Mgmt (Prof. Practice Avail) PG Dip Waste & Resource Mgmt (Prof. Practice Avail) PG Cert Environ. Studies / Sustainability Studs / WRM
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Date of Validation:	March 2019
Details of Cohorts Applies to:	All students entering SCQF level 11 from September 2023

Awarding Institution/Body:	University of the West of Scotland
Teaching Institution:	University of the West of Scotland
Language of Instruction & Examination:	English
Award Accredited By:	
Maximum Period of Registration:	Sept intake: 1 year full-time, typically 2 years part-time / Jan intake: 1.5 years full-time, typically 2 years part-time (Professional Practice module is an additional 3 months)
Mode of Study:	Full Time Part Time
Campus:	Paisley

School:	School of Computing, Engineering and Physical Sciences
Programme Board	Physical Sciences
Programme Leader:	Dr Iain McLellan

Admission Criteria

Candidates must be able to satisfy the general admission requirements of the University of the West of Scotland as specified in Chapter 2 of the University Regulatory Framework together with the following programme requirements:

Appropriate Undergraduate Qualification

2:2 or above in an appropriate science / engineering / environmental based discipline from a United Kingdom University or an equivalent institution. Direct entry to the MSc course will require students to have completed a Postgraduate Diploma in an appropriate discipline or an acceptable equivalent.

Other Required Qualifications/Experience

Non-standard Entry: entry to the postgraduate course (other than Masters direct) may be open to holders of an HND or DipHE award in an appropriate discipline, or a professional qualification accepted as of equivalent status and usually at least three years' relevant experience. Candidates without formal qualifications who possess extensive professional experience deemed to equip the applicant with the necessary knowledge and skills to successfully complete the course (normally at least eight years) may also be admitted to the postgraduate programme. The Recognition of Prior Learning (RPL) Guidelines will be followed.

All students will normally be interviewed by one or more members of the course committee. During the interview, evidence of relevant experience will be required to determine if the applicant has the range of knowledge and ability to lead in to the postgraduate programme. International student applications are reviewed by the programme leader, references checked and transcripts considered to ensure the applicant's qualifications and background are suitable for the programme.

Applicants may also be considered with other academic, vocational or professional qualifications deemed to be equivalent.

We welcome applications from international students with equivalency of qualifications. Scholarships may be available on application.

Further desirable skills pre-application

It would be desirable that all entrants to SCQF level 11 have skills in the following areas: numeracy, communications (including report writing and presentations) and investigation techniques. It would also be desirable if entrants had a background in elements of the natural environment, industrial development and/or waste management.

General Overview

This MSc programme in Waste and Resource Management has been designed to meet the evolving demands placed on the waste and environmental professional. The programme is offered both part-time and full-time and enables you to study waste management and resource management as they apply to the sustainable use of Earth's resources and balancing the needs of the environment, society, and the economy. There is a strong focus on the implications of injudicious waste disposal, environmental impacts, management options and technical solutions using new and emerging technologies and methods.

The emphasis of the programme is on the physical and environmental elements of industrial development followed by sustainable approaches to reduction of environmental impact and appropriate technologies to deal with waste streams from a wide range of industrial and land use sources. Incorporated within the programme is a link with management systems, audit and environmental indicators, all geared to providing the student with an ability to avoid and mitigate negative environmental impacts.

The strength of this programme is in its practical, industrial bases, linking with business, local authorities and other academic and training centres throughout Scotland and beyond. There is a strong international element to the programme, with aspects of legislation and regulation, environmental assessment, management systems and the practice of waste management being enhanced with case study examples from around the world.

The key academic aims of the programme are to ensure you align with the 'I am UWS' commitments:

1. Develop critical problem-based learning skills and transferable skills to prepare the student for employment in a position dealing with waste management, pollution control, technological options and emerging solutions
2. Prepare the student for a professional position in waste and resource management
3. Enable the student to confidently present material to peers, employers and the academic community
4. Assist the student to gain a comprehensive understanding of sustainability, the role waste management plays in protecting the environment, and the opportunities for development and application of emerging technologies
5. Guide the student in developing an independent approach to a research topic, investigating a topic and presenting the findings in a form that is suitable to a post-graduate level degree

Graduate Attributes, Employability & Personal Development Planning

The programme has a strong practical base. The involvement of representatives from public and private sector agencies and companies ensures that students receive current information in waste and resource management. Students will gain a wide range of skills and abilities in assessing environmental conditions, auditing waste situations, planning for impact reviews and recommending appropriate solutions to problems. Written and oral communication are required throughout the programme. Personal development planning is a major part of the programme. Actual industrial and business examples are referred to in all modules and guest speakers are involved to allow students to explore current industry and government needs. The MSc dissertation provides students with opportunities to meet with professionals in government, industry and business.

On completion of the Waste and Resource Management programme, you will gain the following Graduate Attributes:

- You will be a **critical thinker** working **collaboratively** with colleagues on **research-minded** projects
- You will be an **ambitious, motivated work ready professional**, able to show future employers you are a **problem solver** and an **effective communicator**
- Your research will be **innovative** and **creative** producing **resilient** solutions to our environmental and waste management challenges

Work Based Learning/Placement Details

While there is no specific programme of industrial placement, students will have access to business and industry and there is potential for them to carry out MSc research with case studies taken from local agencies and companies. The incorporation of current waste, technological and environmental examples provide the students with opportunities to contact regulatory agencies and businesses and independently enquire about potential for involvement.

Engagement

In line with the **Academic Engagement Procedure**, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on the relevant learning platform, and complete assessments and submit these on time.

Where a programme has Professional, Statutory or Regulatory Body requirements these will be listed here:

In line with the Academic Engagement Procedure, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on the relevant learning platform, and complete assessments and submit these on time.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: **[UWS Equality and Diversity Policy](#)**

Aligned with the University's commitment to equality and diversity, this programme supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content.

The programme complies with University regulations and guidance on inclusive learning and teaching practice. There will be modules on this programme that have lab-based teaching or has site visits associated with it. In all cases you are advised to speak to the relevant Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.

More information on the University's EDI policies can be accessed at: <https://www.uws.ac.uk/about-uws/uws-commitments/equality-diversity-inclusion/>

Programme structures and requirements, SCQF level, term, module name and code, credits and awards (**Chapter 1, Regulatory Framework**)

A. PG Cert

Learning Outcomes (Maximum of 5 per heading)

Knowledge and Understanding	
A1	Gain a critical understanding of the development of principles of change management and interpersonal skills such as leadership and team building
A2	Critically evaluate characteristics of reliable research strategies, ethical issues in research and using data as support in an argument

A3	Gain a critical understanding of a range of specialised theories, principles and concepts in relation to environmental protection and management
A4	Develop an awareness of environmental issues and the scientific basis of major impacts of human activities on the environment
Practice - Applied Knowledge and Understanding	
B1	Identify informal approaches to establishing management systems in a range of industrial settings
B2	Apply the skills needed for academic study, enquiry and synthesis of information
B3	Apply strategies for the appropriate selection of relevant information from a wide range of sources and a large body of knowledge
B4	Critically review current, relevant environmental legislation, information systems and technologies
Communication, ICT and Numeracy Skills	
C1	Develop presentation skills to allow appropriate and effective communications to peers and senior colleagues, in a professional setting
C2	Communicate effectively with a wide range of individuals using a variety of means
C3	Incorporate information management skills including applications of information system technologies
C4	Critical discussion of ICT tools in support of research
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Synthesise information from a number of sources in order to gain a coherent understanding of theory and practice
D2	Utilise problem solving skills
D3	Undertake skilled, competent, safe, evaluative and reflective analytical practice
Autonomy, Accountability and Working With Others	
E1	Communicate effectively within a team, resolving differences of view and effectively managing conflict
E2	Operate effectively within a team situation
E3	Prepare, carry out, report on and present solutions to an industrial based problem

Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	CEWM11008	Clean Technology and Resource Management	20		✓		

11	CEWM11006	Pollution Control	20	✓			Will move from T2 to T1
11		Post-Graduate Research Methods *	20		✓		New 20 credit module to replace 10 credit module QUAL11023 Research Methods
11		Sustainability Principles *	20		✓		New 20 credit module to replace 10 credit CEWM11010 Principles of Sustainability
11	CEWM11001	Environmental Systems	20	✓			
11	CEWM11005	Waste Management	20	✓			

* Indicates that module descriptor is not published.

Footnotes

For PgC Environmental Studies the core modules are: Environmental Systems; Waste Management; Pollution Control

For PgC Sustainability Studies the core modules are: Sustainability Principles; Clean Technology and Resource Management; PG Research Methods

For PgC Waste and Resource Management the core modules are: Waste Management; Clean Technology and Resource Management

Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	CEWM11008	Clean Technology and Resource Management	20		✓		
11	CEWM11001	Environmental Systems	20	✓			
11	CEWM11006	Pollution Control	20	✓			Will move from T2 to T1
11		Post-Graduate Research Methods *	20		✓		new 20 credit module to replace 10 credit module
11	QUAL11024	Professional Practice	60	✓	✓	✓	
11		Sustainability Principles *	20		✓		New 20 credit module to replace CEWM11010 Principles of Sustainability
11	CEWM11005	Waste Management	20	✓			

* Indicates that module descriptor is not published.

Footnotes

For PgC Environmental Studies there are no optional modules

For PgC Sustainability Studies there are no optional modules

For PgC Waste and Resource Management the optional modules are: Environmental Systems; Pollution Control; Sustainability Principles; PG Research Methods.

Criteria for Progression and Award

The Exit Awards require 60 credits at SCQF Level 11 from the CORE and OPTIONAL modules for each award:

PgC Environmental Studies

PgC Sustainability Studies

PgC Waste and Resource Management

The award of (Professional Practice) will be made on completion of the required credit for the award plus the additional 60 credits from the optional Professional Practice module. [Note that this module is offered subject to availability of suitable placement opportunities and cannot be guaranteed]

B. PG Dip**Learning Outcomes (Maximum of 5 per heading)**

Knowledge and Understanding	
A1	Understand techniques for the analysis of waste and environmental controls
A2	Gain a full understanding of the development, monitoring and maintenance of waste management systems and control strategies
A3	Develop a sound understanding of industrial processes used to minimise pollution and enhance efficiency
A4	Gain an extensive and detailed understanding of the principles and practices in development of clean technologies for resource management
Practice - Applied Knowledge and Understanding	
B1	Apply the skills needed for academic study and enquiry into waste prevention, reduction, treatment and disposal along with technologies relevant to industrial development
B2	Apply strategies for the appropriate selection of relevant information from a wide source and large body of knowledge
B3	Critically review current, relevant waste legislation principles
Communication, ICT and Numeracy Skills	
C1	Further develop presentation skills to allow appropriate communications to peers and senior colleagues
C2	Communicate effectively with a wide range of individuals using a variety of means
C3	Apply information management skills, e.g. IT skills
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Synthesise information from a number of sources in order to gain a coherent understanding of theory and practice
D2	Utilise problem solving skills with reference to industrial settings

D3	Undertake skilled, competent, safe, evaluative and reflective analytical practice
Autonomy, Accountability and Working With Others	
E1	Communicate effectively within a team, resolve differences and manage conflict
E2	Operate effectively within a team situation as both a member and leader
E3	Independently undertake research into an individual topic and present to peers and supervisors

Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11		Sustainability Principles *	20		✓		New 20 credit module to replace 10 credit CEWM11010 Principles of Sustainability
11	CEWM11005	Waste Management	20	✓			
11	CEWM11008	Clean Technology and Resource Management	20		✓		

* Indicates that module descriptor is not published.

Footnotes

Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	CEWM11001	Environmental Systems	20	✓			
11	CEWM11006	Pollution Control	20	✓			Will move from T2 to T1
11		Post-Graduate Research Methods *	20		✓		New 20 credit module to replace 10 credit module QUAL11023 Research Methods
11	QUAL11024	Professional Practice	60	✓	✓	✓	
11	CEWM11007	Waste and Resource Mgt Masters Dissertation	60	✓	✓	✓	

* Indicates that module descriptor is not published.

Footnotes

Criteria for Progression and Award

The award is the Postgraduate Diploma in Waste and Resource Management, the requirements are 120 credits, at SCQF level 11 from the CORE and OPTIONAL modules listed above.

The award of PgD Waste and Resource Management (Professional Practice) will be made on completion of the required credit for the award plus the additional 60 credits from the optional Professional Practice module. [Note that this module is offered subject to availability of suitable placement opportunities and cannot be guaranteed]

University regulations on distinction will apply.

C. Masters

Learning Outcomes (Maximum of 5 per heading)

Knowledge and Understanding	
A1	Develop a critical awareness of current issues in waste and resource management
A2	Critically evaluate evidence from a variety of topics
A3	Synthesise information from a number of sources in order to gain a coherent understanding of theory and practice
Practice - Applied Knowledge and Understanding	
B1	Independently collect appropriate data
B2	Consolidate and integrate knowledge gained from the taught modules and provide practical experience in applying effective strategies in waste and/or environmental management
B3	Formulate and present a written technical volume of work
Communication, ICT and Numeracy Skills	
C1	Present a clear concise written report
C2	Communicate effectively to a non-expert audience and to peers and supervisors
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Undertake skilled, competent, safe, evaluative and reflective sampling and analysis of environmental hazards, impacts, indicators and other information
D2	Interpret data, draw conclusions and make appropriate recommendations
Autonomy, Accountability and Working With Others	
E1	Manage time, prioritise workloads and recognise and manage personal emotions and stress
E2	Take responsibility for personal and professional learning and development

Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11		Post-Graduate Research Methods *	20		✓		New 20 credit module to replace 10 credit

						module QUAL11023 Research Methods
11		Sustainability Principles *	20	✓		New 20 credit module to replace 10 credit CEWM11010 Principles of Sustainability
11	CEWM11001	Environmental Systems	20	✓		
11	CEWM11008	Clean Technology and Resource Management	20		✓	
11	CEWM11006	Pollution Control	20	✓		Will move from T2 to T1
11	CEWM11005	Waste Management	20	✓		
11	CEWM11007	Waste and Resource Mgt Masters Dissertation	60	✓	✓	✓

* Indicates that module descriptor is not published.

Footnotes

Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
11	QUAL11024	Professional Practice	60	✓	✓	✓	

* Indicates that module descriptor is not published.

Footnotes

Criteria for Award

Degree of Master of Science (MSc) Waste and Resource Management SCQF level 11. Distinction can be awarded for an MSc graduate as outlined in the Regulatory Framework.

The award of MSc Waste and Resource Management (Professional Practice) will be made on completion of the required credit for the award plus the additional 60 credits from the optional Professional Practice module. [Note that this module is offered subject to availability of suitable placement opportunities and cannot be guaranteed]

Regulations of Assessment

Candidates will be bound by the general assessment regulations of the University as specified in the [University Regulatory Framework](#).

An overview of the assessment details is provided in the Student Handbook and the assessment criteria for each module is provided in the module descriptor which forms part of the module pack issued to students. For further details on assessment please refer to Chapter 3 of the Regulatory Framework.

To qualify for an award of the University, students must complete all the programme requirements and must meet the credit minima detailed in Chapter 1 of the Regulatory Framework.

Combined Studies

There may be instances where a student has been unsuccessful in meeting the award criteria for the named award and for other more generic named awards existing within the School. Provided that they have met the

credit requirements in line with the SCQF credit minima (please see Regulation 1.21), they will be eligible for an exit award of PgCert/ PgDip in Combined Studies.

Changes

Changes made to the programme since it was last published:

Changes have been made to:

General Overview

Engagement

Equality and Diversity

PgC Exit Awards and the CORE and OPTIONAL modules

PgD Exit Award and the CORE and OPTIONAL modules

MSc Exit Award and the CORE modules

Version Number: 1.05