Module Descriptor

Title	Waste Management		
Session	2025/26	**Status**	Published
Code	CEWM11005	**SCQF Level**	11
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Gillian Clayton		

Summary of Module

This is an attendance based, continuously assessed module.

On completion of this module you will gain the following Graduate Attributes:

• Critical thinking by working collaboratively with colleagues on researchminded assignments

• Problem solving and effective communication

• Your research will be innovative and creative producing resilient solutions to our environmental and waste management challenges.

Waste Management provides students with access to best practice in operational controls and techniques for waste reduction, handling, treatment, disposal and diversion. Passive and active technologies for waste management are covered and include a full range of waste types i.e. food waste, compostable materials, electrical waste, hazardous waste and wastes suitable for waste-to-energy facilities. This module considers processes for waste handling and conversion and uses case studies from industrial facilities that deal in handling waste materials. Included in this module is a focus on international practices, with case studies to support the lectures.

Class materials, research resources, exercises, class communications, administrative information and assignment handling will be supported by a Virtual Learning Environment Students will gain a comprehensive and detailed knowledge of options for reduction of waste generation and waste materials handling, treatment and disposal

Module Delivery Method	On-Campus[1] ☒	Hybrid[2] ☐	Online[3] ☐	Work -Based Learning[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☐ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

Terms for Module Delivery	Term 1	☒	Term 2	☐	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Critically evaluate and succinctly communicate the roles of a range of sustainable waste management techniques
L2	Apply critical analysis and prioritise optional approaches to reducing types and amounts of wastes requiring treatment and disposal
L3	Evaluate, in detail, the impacts and benefits of various techniques in managing wastes in a variety of environmental situations (including international examples)
L4	N/A
L5	N/A

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 11** Gain a critical understanding of the range and variety of waste management techniques, particularly the options for reducing waste to landfill. Evaluate the effectiveness of waste management techniques
Practice: Applied Knowledge and Understanding	**SCQF 11** Identify waste management/treatment/disposal options with particular regard to environmental impacts and benefits. Evaluate information and gain a coherent understanding of theories and practices in implementing a range of techniques for waste management..

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Generic Cognitive skills	**SCQF 11** Develop and demonstrate an ability to communicate effectively in a variety of professional settings and provide clear guidance on appropriate techniques for waste handling. Demonstrate a detailed understanding of an issue and develop a solution to a waste problem.
Communication, ICT and Numeracy Skills	**SCQF 11** Demonstrate a full understanding of the process of preparing oral and written reports, using IT and other presentation techniques. Communicate complex waste management options in a professional setting.
Autonomy, Accountability and Working with Others	**SCQF 11** Work as part of a professional team to analyse information from a waste generation situation, formulate a solution and present it to peers, colleagues and specialists. Work independently to develop a plan to manage a specific waste stream and prepare a presentation that would be suitable to present to an industrial or business client.

Prerequisites	**Module Code** N/A	**Module Title** N/A
	Other All applicants must satisfy the qualification and/or experience requirements as established in the admission criteria. See Reg. 6.3.	
Co-requisites	**Module Code** N/A	**Module Title** N/A

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	30
Tutorial / Synchronous Support Activity	6
Independent Study	164
n/a	
n/a	
n/a	
TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Healthcare without Harm (2004) Non-incineration Medical Waste Treatment Technologies in Europe,

Department of Health (2006) Health Technical Memorandum 07-01: Safe Management of Healthcare Waste

Barbour Index on-line

www.netregs.gov.uk

www.defra.gov.uk

www.sepa.org.uk

www.wascot.org.uk

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

Aligned with the University's commitment to equality and diversity, this module 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. This module complies with University regulations and guidance on inclusive learning and teaching practice. Specialist assistive equipment, support provision and adjustment to assessment practice in accordance with the University's policies and regulations.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Engineering Physical Sciences**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☒ **No**

	If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.
School Assessment Board	Physical Sciences
Moderator	Andrew Hursthouse
External Examiner	A. Oke
Accreditation Details	N/A
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	2.14 - Updates to Attendance and EDI sections

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Essay on waste streams (40%)
Assessment 2
Report on waste management issues (40%)
Assessment 3
Oral Presentation (20%)
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Essay	☒	☒	☒	☐	☐	40	

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Written Report	☒	☒	☒	☐	☐	40	

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Oral Presentation	☒	☒	☒	☐	☐	20	3
Combined total for all components						100%	3 hours

Change Control

What	When	Who
Updated Attendance and EDI statements	21/03/2025	G Clayton
Updated timetabled contact hours for Assessment 3	21/03/2025	G Clayton
Change in number of assessment components	21/03/2025	G Clayton