Session: 2023/24

Title of Module: Environmental Systems			
Code: CEWM11001	SCQF Level: 11 (Scottish Credit and Qualifications Framework)	Credit Points: 20	ECTS: 10 (European Credit Transfer Scheme)
School:	School of Computing, Engineering and Physical Sciences		
Module Co-ordinator:	Andrew Hursthouse		

Summary of Module
Within this module you will look at the principles of Earth systems and considers the fundamentals of earth and environmental sciences so that you develop an understanding of the physical environment and its relationship to resource use and protection. You will also consider the management of freshwater, oceanic and coastal environments, as well as the terrestrial environment leading to issues surrounding changes in climate and the impacts on environment, society and adaptation. The module concludes with a look at environmental management systems and environmental auditing linking with an industrial focus. This introductory module presents a framework for students to further their studies within environmental studies, including sustainability technology and waste and resource management On completion of this module you will gain the following Graduate Attributes: • **Critical thinking** by working **collaboratively** with colleagues on **research-minded** assignments • **Problem solving** and **effective communication** • Your research will be **innovative** and **creative** producing **resilient** solutions to our environmental and waste management challenges

Module Delivery Method					
Face-To-Face	Blended	Fully Online	HybridC	HybridO	Work-based Learning
			✓		

Face-To-Face
Term used to describe the traditional classroom environment where the students and the lecturer meet synchronously in the same room for the whole provision.
Blended
A mode of delivery of a module or a programme that involves online and face-to-face delivery of learning, teaching and assessment activities, student support and feedback. A programme may be considered "blended" if it includes a combination of face-to-face, online and blended modules. If an online programme has any compulsory face-to-face and campus elements it must be described as blended with clearly articulated delivery information to manage student expectations
Fully Online
Instruction that is solely delivered by web-based or internet-based technologies. This term is used to describe the previously used terms distance learning and e learning.
HybridC
Online with mandatory face-to-face learning on Campus
HybridO
Online with optional face-to-face learning on Campus
Work-based Learning
Learning activities where the main location for the learning experience is in the workplace.

Campus(es) for Module Delivery

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit)

Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
✓						

Term(s) for Module Delivery

(Provided viable student numbers permit).

Term 1	✓	Term 2		Term 3	

Learning Outcomes: (maximum of 5 statements)

On successful completion of this module the student will be able to:
L1. Gain a critical understanding of the main components of the Earth System, i.e., the atmosphere, land, water, their interrelationships, and interactions with the biosphere
L2. To demonstrate a critical awareness of the impact of human activities on the environment and the principles of sustainability
L3. Apply knowledge to complex issues and demonstrate originality when utilizing the principles of environmental management systems and auditing techniques

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 Level 11. Gain a critical understanding of the development of principles of environmental protection and sustainability. Evaluate the effectiveness of control measures in relation to environmental impacts.
Practice: Applied Knowledge and Understanding	SCQF Level 11. Identify issues in a range of environmental settings. Synthesise information and gain a coherent understanding of theories and practices in managing environmental issues.
Generic Cognitive skills	SCQF Level 11. Develop and demonstrate an ability to communicate effectively in a variety of professional settings. Demonstrate an understanding of an issue and develop a solution to an environmental problem.
Communication, ICT and Numeracy Skills	SCQF Level 11. Gain a full understanding of the process of preparing oral and written reports, using IT. Communicate study results in a professional setting.

Autonomy, Accountability and Working with others	SCQF Level 11. Work as part of a professional team to analyse information, formulate a solution and present it back to the group. Work independently to create a programme of management for an environmental issue.	
Pre-requisites:	Before undertaking this module the student should have undertaken the following:	
	Module Code:	**Module Title:**
	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:**	**Module Title:**

* Indicates that module descriptor is not published.

Learning and Teaching	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	30
Laboratory/Practical Demonstration/Workshop	6
Independent Study	164
	200 Hours Total
**Indicative Resources: (eg. Core text, journals, internet access)	
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: The following materials form essential underpinning for the module content and ultimately for the learning outcomes: (in alphabetical order). As the University moves towards e-books, these will be updated on a regular basis on the VLE. In addition: Barbour Index on-line (access through the UWS Library Electronic Resources) Chartered Institution of Wastes Management: http://www.ciwm.co.uk/CIWM/CIWMHome.aspx Jones, G. (2014) People and Environment: a global approach Taylor & Francis Kump, L.R., Kasting, J.F., Crane, R.G. (2013) The Earth System. 3rd edn. Lame, M. and Marcantonio, R. (2023) Environmental Management: concepts and practical skills. 1st edn Cambridge University Press	

NetRegs: Environmental guidance for Northern Ireland and Scotland: https://www.netregs.org.uk/	
Scottish Environment Protection Agency: https://www.sepa.org.uk/	
UWS class notes on the Virtual Learning Environment	

(**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)

Engagement Requirements

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. Please refer to the Academic Engagement Procedure at the following link: **Academic engagement procedure**

Supplemental Information

Programme Board	Physical Sciences
Assessment Results (Pass/Fail)	No
Subject Panel	Physical Sciences
Moderator	Jan Miller
External Examiner	A Oke
Accreditation Details	
Changes/Version Number	2.15 Module Summary updates; LOs updated; Pre-requisites removed; Indicative Resources updated; Equality and Diversity statement updated; Accreditation details updated.

Assessment: (also refer to Assessment Outcomes Grids below)

Assignment 1 is worth 40% of the module grade

Assignment 2 is worth 40% of the module grade

Assignment 3 is worth 20% of the module grade.

(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 Handbook.)

Assessment Outcome Grids (Footnote A.)

Component 1

Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Review/ Article/ Critique/ Paper	✓	✓		40	8

Component 2

Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Essay		✓		40	8

Component 3

Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Case study			✓	20	4
Combined Total For All Components				100%	20 hours

Footnotes

A. Referred to within Assessment Section above

B. Identified in the Learning Outcome Section above

Note(s):

1. More than one assessment method can be used to assess individual learning outcomes.
2. Schools are responsible for determining student contact hours. Please refer to University Policy on contact hours (extract contained within section 10 of the Module Descriptor guidance note).
   This will normally be variable across Schools, dependent on Programmes &/or Professional requirements.

Equality and Diversity

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. You are advised to speak to the 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/
UWS Equality and Diversity Policy

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