Module Descriptor

Title	Net Zero and Carbon Management		
Session	2026/27	**Status**	Published
Code	CEWM11011	**SCQF Level**	11
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Health and Life Sciences**		
Module Co-ordinator	Kiri Rodgers		

Summary of Module

This module delivers a comprehensive framework to assess and direct activity to reach net zero targets within business and industry settings. It is a blend of live sessions (online and face-to-face) and self-paced online study, specifically designed to empower participants from a wide background of experience to effectively undertake carbon auditing and develop their own sustainable emission reduction plan.

The course enables participants to critically evaluate and discuss the concept of Net Zero and the surrounding legal and social duties. This includes being able to identify, analyse and apply management principles to assess the impact of their organisation on the environment and calculate their carbon footprint, using a variety of established tools and methodologies. Participants will learn to communicate causes of climate change due to carbon emissions and critically evaluate its impact and options available to an organisation to reduce their carbon footprint and improve sustainability on a personal, departmental, and organisational level.

Topics covered includes Understanding climate change, Greenhouse gases (GHG), Carbon & Energy, Climate Change international drivers, Energy awareness, emissions data sources & terminology, the concept of Net Zero and the surrounding legal and social duties. Auditing Methodologies, GHG standards and protocol applications, Performance management, People, policy and Place, and SMEs Carbon disclosure mechanisms.

Also, by undertaking this module you develop a range of 'I am UWS' Graduate Attributes.

Universal – development of critical thinking, ethically and research minded.

Work Ready – an effective problem solver, communicator and ambitious.

Successful – by being autonomous, resilient and driven

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 examine a range of theories and standard protocols, which underpin the ability to monitor carbon emissions.
L2	Apply knowledge to complex issues and develop and understanding of tools and methodologies for delivering energy and GHG reductions for an organisation.
L3	Act as a motivated professional, able to problem solve and communicate to an appropriate level for carbon auditing.
L4	Develop critical problem-based learning skills and transferable skills to prepare the student for employment in a position dealing with carbon auditing, GHG emission reduction, including technological options and emerging solutions.
L5	

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 variables that impact environmental, animal and human health. Evaluate the effectiveness of control measures in relation to impacts on multiple levels.
Practice: Applied Knowledge and Understanding	**SCQF 11**

[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

	Demonstrate the integration of the main subject areas expected for carbon auditing and develop knowledge of how the implementation emission reduction activities impact organisational operations.
Generic Cognitive skills	**SCQF 11** Develop skills that will allow you to identify, conceptualise, define new problems and issues, and then develop creative responses to those challenges. Analysing the links between policy and strategy and implementation of local, national and/or international incentives. Develop ability to communicate effectively in a variety of profession situations.
Communication, ICT and Numeracy Skills	**SCQF 11** You will be able to disseminate complex data, in written and oral methods, to audiences with different skills sets and expertise. Appropriate communication in a professional environment.
Autonomy, Accountability and Working with Others	**SCQF 11** Work as part of a professional team to analyse information and formulate a solution and present it back to the group. Work independently to create a programme of management for an environmental issue.

Prerequisites	**Module Code**	**Module Title**
	Other	
Co-requisites	**Module Code**	**Module Title**

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. This module will be delivered in a short course format via a hybrid platform with on-line self-paced learning utilising the Virtual Learning Environment (VLE)., as well as interactive workshops delivered both face to face and online. As the role of participants is as an internal environmental professional, responsible for the monitoring of carbon emissions, all materials are aimed to ensure compliance with environmental legislation and policy. All students will be expected to work through the online module materials independently via the VLE. This will assist in enhancing communication, presentation, problem-solving and critical reflection skills. Materials delivered are based on cohort needs analysis, with participant centred delivery involving practical and theoretical sessions using case studies as the focal point of decision making and problem-solving tasks.	
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)

Laboratory / Practical Demonstration / Workshop	36
Independent Study	164
n/a	
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:

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021

https://circularecology.com/embodied-carbon-footprint-database.html

https://www.climatepartner.com/en/the-road-to-net-zero

The GHG Emissions Calculation Tool

Built on GHG Protocol" Calculation Tools

GHG Protocol Corporate Standard (https://ghgprotocol.org/corporate-standard)

(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 attending and participating in all timetabled programme activities including on-campus and online teaching sessions, asynchronous online learning activities, placement, work-based elements, course-related learning resources, and complete assessments and submit these on time.

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

Attendance to all online, on-campus classes and laboratory sessions.

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.

In line with current legislation (Equality Act, 2010) and the UWS Equality, Diversity, and Human Rights Code, our modules are accessible and inclusive, with reasonable adjustment for different needs where appropriate. Module materials comply with University guidance on inclusive learning and teaching, and specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations. Where modules require practical and/or laboratory based learning or assessment required to meet accrediting body requirements the University will make reasonable adjustment such as adjustable height benches or assistance of a ‘buddy’ or helper.

(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	**Biological Sciences Health**
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	Biology
Moderator	Iain McLellan
External Examiner	T Temple
Accreditation Details	IEMA
Module Appears in CPD catalogue	☒ **Yes** ☐ **No**
Changes / Version Number	2

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Portfolio of written work (70%)
Assessment 2
Presentation (30%)
Assessment 3
(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**
Portfolio of written work	☒	☒	☒	☒	☐	70	0

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Presentation	☒	☒	☒	☒	☐	30	0

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	0 hours

Change Control

What	When	Who