Session:

Title of Module: Net Zero and Carbon management			
Code:	SCQF Level: 11 (Scottish Credit and Qualifications Framework)	Credit Points: 20	ECTS: (European Credit Transfer Scheme)
School:	School of 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		
Face-To-Face	**Blended**	**Fully Online**

☐	☒	☐

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.

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.

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

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) (tick as appropriate)

Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
☐	☐	☐	☒	☐	☐	Add name

Term(s) for Module Delivery

(Provided viable student numbers permit).

Term 1	☒	Term 2	☒	Term 3	☒

Learning Outcomes: (maximum of 5 statements)
These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module.
At the end of this module the student will be able to:

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	Click or tap here to enter text.

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** 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
Practice: Applied Knowledge and Understanding	SCQF Level **11** Critically examine the application of knowledge and skills required by carbon auditors to contribute to an environmentally sustainable future within industry.
Generic Cognitive skills	SCQF Level **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 Level **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 Level **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.
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 in the relevant field and must be able to draw from current practice experience in order to meet the programme's assessment requirements.

Co-requisites	Module Code:	Module Title:

Learning and Teaching

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 (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Laboratory/Practical Demonstration/Workshop	36
Independent Study	164
Choose an item.	
	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:

- 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)

Attendance 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 VLE, and complete assessments and submit these on time. Please refer to the Academic Engagement Procedure at the following link: Academic engagement procedure

For the purposes of this module, academic engagement equates to the following: Face to Face attendance and on-line delivery

Attendance at synchronous sessions (lectures, workshops, and tutorials), completion of asynchronous activities, and submission of assessments to meet the learning outcomes of the module.

Equality and Diversity

UWS Equality and Diversity Policy

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 and Health
Assessment Results (Pass/Fail)	Yes ☒ No ☐
School Assessment Board	Biology
Moderator	Iain McLellan
External Examiner	Format: TBC

Accreditation Details	Seeking Institute of Environmental Management and Assessment (IEMA),
Changes/Version Number	

Assessment: (also refer to Assessment Outcomes Grids below)

Assessment 1:
Case study assessment to reflect on:
   a. The role of greenhouse gases emissions and reduction
   b. Carbon auditing skills
   c. Societal responsibility and business impact
Through the production of a critical reflection portfolio 2,500 – 3000 words

Assessment 2: Case study presentation – 15-minute discussion of the case study and personal reflection on development needs
(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)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Portfolio of written work	x	x	x	x	70	0

	Component 2					
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Presentation	x	x	x	x	30	0

Component 3					
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours

Combined Total For All Components	100%	hours

Footnotes
A. Referred to within Assessment Section above. 1. More than one assessment method can be used to assess individual learning outcomes.
B. Identified in the Learning Outcome Section above. Please choose assessment type from list below:

Exam - Unseen closed book (standard)
Exam - Seen closed book
Exam - Unseen open book
Exam - Seen open book
Case study
Class test (written)
Design/ Diagram/ Drawing/ Photograph/ Sketch
Dissertation/ Project report/ Thesis
Essay
Laboratory/ Clinical/ Field notebook
Portfolio of written work
Report of practical/ field/ clinical work
Review/ Article/ Critique/ Paper
Workbook/ Laboratory notebook/ Diary/ Training log/ Learning log
Class test (practical)
Clinical/ Fieldwork/ Practical skills assessment/ Debate/ Interview/ Viva voce/ Oral
Creative output/ Audiotapes/ Videotapes/ Games/ Simulations
Demonstrations/ Poster presentations/ Exhibitions
Performance/ Studio work/ Placement/ WBL/ WRL assessment
Portfolio of practical work
Presentation
Objective Structured Clinical Examinations (OSCEs)
Objective Structured Professional Examinations (OSPREs)

Change Control

What	When	Who
Further guidance on aggregate regulation and application when completing template	16/01/2020	H McLean
Updated contact hours	140921	H McLean