



CORPORATE AND ACADEMIC SERVICES


MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Tropical Expedition				
Module Code	USSK59-15-3	Level	3	Version	1
Owning Faculty	Health and Applied Sciences	Field	Biological, Biomedical and Analytical Sciences		
Contributes towards	BSc. Hons Wildlife Ecology and Conservation Science BSc. Hons Environmental Science BSc. Hons Biological Sciences BSc. Hons Integrated Wildlife Conservation				
UWE Credit Rating	15	ECTS Credit Rating	7.5	Module Type	Professional Practice
Pre-requisites	USSK5C-30-1 Life on Earth or equivalent e.g USSJ99-20-1	Co- requisites			
Excluded Combinations		Module Entry requirements			
Valid From	September 2013	Valid to	September 2019		

CAP Approval Date	19 th June 2013
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> • undertake ecological field work in tropical ecosystems and describe the problems and limitations of working in tropical environments (assessed on Component A, B1); • undertake and critically assess the population dynamics of tropical forests (assessed in Component B1); • undertake coral reef surveys and discuss the factors that affect the diversity of coral reefs and describe the biological interactions among reef organisms (assessed in Component A, B2); • discuss current theories of tropical forest and coral reef ecology (assessed in Component B1, B2); • demonstrate core transferable skills through team work, project management, time management, independent research and communication (assessed in Component B2).
Syllabus Outline	<p>This module examines the ecology of tropical ecosystems and the field and analytical methods used to survey and assess these ecosystems.</p> <ul style="list-style-type: none"> • Tropical weather patterns and the ecology of tropical ecosystems.

	<ul style="list-style-type: none"> • Techniques in floristic identification, diversity and collection. Assessment of plant species distribution and abundance in the tropics. Introduction to forest gap dynamics. • Ecology of tropical populations of reptiles, birds and mammals and the methods and techniques used to study them. • Coral reef ecology. Formation and functioning of coral reefs. Factors affecting the distribution of reefs. Biological interactions and community structure. Symbiotic relationships. Resource partitioning among reef organisms. Threats to coral reefs and the decline of coral reefs. • Coral reef surveys. Identification of corals and associated coral reef organisms, including fish. Survey techniques and methods used to study coral reef health.
Contact Hours	<p>The module will be delivered primarily during a 2 week expedition to the Isle of Youth, off the coast of mainland Cuba. In the event of unforeseen circumstances, such as political instability, an alternative location (e.g. Honduras) may be used.</p> <p>Preparation for the expedition will involve a series of workshops, tutorials and practical training at UWE. Additional sessions will be available after the expedition returns to co-ordinate and analyse data and to provide guidance on the assignment report.</p> <p>5 workshops @ 2 hours/workshop = 10 hours 5 tutorials @ 2 hours/tutorial = 10 hours Residential field course @ 6 hours/day = 84 hours</p>
Teaching and Learning Methods	<ul style="list-style-type: none"> • All participants will be required to hold a PADI Open Water diving certificate, or an equivalent qualification, before leaving the UK. An appropriate training programme will be organised beforehand by the module team using qualified instructors. • The field work programme will be divided into two discrete sections. Five days will be based in an area of dry deciduous tropical forest and five days will be based on diving on coral reefs. • In the forest, students will be trained in tropical plant identification and the techniques used to describe and map trees within standard 100m quadrats. A variety of survey methods will be introduced and used to assess animal populations. Techniques will include mist netting of birds; transect techniques for reptiles, electronic monitoring of bat activity and species identification and insect identification and survey. • The scientific dive programme will be based on board a dive boat and will involve training in survey techniques used to assess coral reef communities underwater. Students will be expected to become proficient in the identification of corals and coral reef fish and be able record data accurately and efficiently. • Additional lectures and practical training will be conducted in the evenings by UWE staff and staff from the University of Havana. These sessions will allow students to develop their taxonomic skills, discuss the day's activities, complete field notes and collate and analyse data. • Travel within Cuba, accommodation on the island and on the dive boat and the supply of food and water will be organised and coordinated by staff from the University of Havana. Health and safety procedures will be based on well-

	<p>established procedures developed by Operation Wallacea specifically for tropical expeditions. All diving activities will be under the control of a fully qualified Dive Instructor trained to international PADI standards.</p> <ul style="list-style-type: none"> The cost of running the trip will be met by the students themselves. The Faculty will fund the cost of staff supervising and teaching during the expedition. 																												
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<p>Reading Strategy</p>	<p>All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively.</p> <p>This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.</p> <p>All students will require their own personal copies of:</p> <p>PADI (2010) <i>PADI Open Water Manual</i>. California: Rancho Santa Margarita.</p> <p>Human, P. and DeLoach, N. (1995) <i>Snorkeling guide to marine life</i>. Jacksonville, Florida: New World Publications.</p>																												
<p>Indicative Reading List</p>	<p>General indicative reading: The most recent edition of</p> <p>Sodhi, N.S., Brook, B.W. and Bradshaw, C.J.A. <i>Tropical conservation biology</i>. Oxford: Blackwell Publishing.</p> <p>Claro, R., Lindeman, K.C. and Parenti, L.R. (eds.) <i>Ecology of the marine fishes of Cuba</i>. Washington and London: Smithsonian Institution Press.</p> <p>Texts available for use in the field:</p> <p>Schettino, L.R. (1999) <i>The Iguanid lizards of Cuba</i>. Boca Raton: University Press of Florida.</p>																												

	<p>Students will be provided with access to relevant journal articles. Examples include:</p> <p>Imbert, D. and Portecop, J. (2008) Hurricane disturbance and forest resilience: Assessing structural vs. functional changes in a Caribbean dry forest. <i>Forest Ecology and Management</i>. 225, pp. 3494-3501.</p> <p>O'Donovan G. (1990) Vegetation patterns in the Dumoga Bone National Park, Sulawesi. In: <i>Insects and the Rain forests of S. E. Asia (Wallacea)</i>. Ch. 14. London: Royal Entomological Society, pp.129-143.</p> <p>Portillo-Quintero, C.A. and Sanchez-Azofeifa, G.A. (2010) Extent and conservation of tropical dry forests in the Americas. <i>Biological Conservation</i>. 143, pp.144-155.</p>
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Part 3: Assessment	
Assessment Strategy	<p>The Assessment Strategy has been designed to support and enhance the development of practical skills, whilst ensuring that the modules Learning Outcomes are attained. The focus is on assessments that link directly to employability skills as described below.</p> <ul style="list-style-type: none"> • The aims of this module are to develop practical skills and knowledge of the techniques used to study tropical ecosystems. Component A therefore is based on achieving a satisfactory level of skill in diving competence and knowledge of marine organisms and identification skills. • The ability to record notes and collect accurate data in the field is assessed through the field log book and this make a significant contribution to Component B. • Taking part in a scientific expedition to the tropics provides students with a unique opportunity to work in a difficult environment with local experts. In these challenging conditions, students develop essential skills in endurance, tolerance, team working, organisation and time management. These are all key graduate skills. These skills are demonstrated through the production of a comprehensive field log book. • The ability to analyse field data and relate these findings with corresponding information from other types of tropical forest available in the literature is assessed in a report on the forest structure. Scientific report writing is a key skill for an environmental graduate. <p>The field log will be completed by hand in the field due to the lack of power, internet, issues with bringing technology into Cuba and the unreliability of technology in tropical conditions, particularly marine conditions. However, students will be provided with the opportunity to take photographs / film on land and under water and will be encouraged to use this to provide material for organisation like Education Through Expedition (ETE) an organisation affiliated to UWE to enhance their learning and personal development.</p>

Identify final assessment component and element	Component B 1. Forest survey report	
% weighting between components A and B (Standard modules only)	A: Pass/Fail	B: 100%
First Sit		

Component A (controlled conditions) Description of each element	Element weighting
1. Diving competence and marine identifications skills NB. To pass Component A students must achieve a competency mark of 60% or above	Pass/Fail
Component B Description of each element	Element weighting
1. Forest survey report (1500 words)	30%
2. Field log book	70%

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) Description of each element	Element weighting
1. Examination on field techniques in the tropics (1 hour) NB. To pass Component A students must achieve a competency mark of 60% or above	Pass/Fail
Component B Description of each element	Element weighting
1. Extended essay (3000 words)	100%
If a student is permitted an EXCEPTIONAL RETAKE of the module the assessment will be that indicated by the Module Description at the time that retake commences.	