



CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Contemporary Conservation Science				
Module Code	USSK5J-30-3	Level	3	Version	1
Owning Faculty	Health and Life Sciences	Field	Department of Biological, Biomedical and Analytical Sciences		
Contributes towards	BSc Wildlife Ecology and Conservation Science				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard
Pre-requisites	USSK5E-30-2 Conservation in Practice	Co- requisites	None		
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"> • Critically evaluate the effectiveness of contemporary conservation strategies around the world (assessed in Component A, B1); • Review and evaluate threats to and opportunities for conservation presented by current technological advances and societal changes (assessed in Component A, B1,B2); • Develop and plan conservation projects which incorporate innovative or current best-practice techniques for biodiversity conservation (assessed in Component B1,2); • Communicate effectively their work to others by a variety of methods, including written, oral, new media (assessed in Component A, B1, B2); • Exhibit advanced knowledge of database creation, maintenance and utilisation (assessed in Component A); • Exhibit the knowledge and ability to advocate to, and engage with, the decision making process at local and national levels (assessed in Component A, B1, B2).
Syllabus Outline	This module builds on the knowledge gained in the Level 2 Conservation in Practice module to provide advanced knowledge and practical experience of contemporary issues and solutions to the problems faced by species of conservation concern.

	<p>Taught elements of the course will include case studies from staff and invited speakers working at the forefront of current conservation efforts.</p> <p><i>Conservation Genetics</i> Use of genetics in practical conservation. DNA barcoding, DNA fingerprinting and monitoring elusive and cryptic species. Studbook genetics and captive breeding. Measuring historic and current gene flow between natural populations. Phenotypic plasticity and the shifting climate. The GM debate.</p> <p><i>Landscape-scale Conservation</i> What is landscape scale conservation? Economic and political drivers of land use change. Monitoring species, habitats and ecosystem services across landscapes. Working with land owners. Methods of effecting change at the landscape level. Measuring and enhancing connectivity.</p> <p><i>Restoration Ecology</i> Species vs habitat vs ecosystem restoration. Methods of restoring ecological function. Rewilding. Dealing with the legacies of past land use e.g. nutrient enrichment, soil degradation, loss of seed bank. Restoring disturbance regimes.</p> <p><i>Funding Conservation & Environmental Entrepreneurship</i> Agri-environment schemes & the Common Agricultural Policy. Payments for Ecosystem Services. Biodiversity Offsetting. Nature Tourism. Conservation-Grade produce. Corporate Social Responsibility. Grants. Memberships, sponsors, legacies and major donors. Social Enterprise and Community Interest Companies. Enterprise schemes. The role of ecological consultancy in conservation.</p> <p><i>Future Issues for Conservation</i> Horizon scanning opportunities and threats. Synthetic Life & Lab-grown meat. Nanotechnology. Micro-plastic pollution. Impacts of economic growth in Developing World. Resurrection of extinct species.</p> <p><i>Practical Skills</i> Database creation and management. Use of MS Access and GIS geodatabases. Networking events. Advocacy and engagement with the political process at local and national levels. Surveys for consultancy. Calculating Ecosystem Services. Reporting and communication, press releases.</p>
Contact Hours	<p>Scheduled learning: Students can expect to receive a minimum of 72 hours taught material. This will be delivered as Interactive lectures and guest lectures (24 hours) tutorials (12 hours) Workshops (24 hours) field visits (12 hours). Workshops will be held throughout the course providing practical skills and guidance towards the completion of assessment tasks.</p> <p>Independent learning: Students are expected to spend 228 hours on independent learning tasks and preparation of assessments.</p>
Teaching and Learning Methods	<p>A variety of learning approaches are used. Practical sessions provide experience of relevant laboratory and field techniques. Practical and workshop sessions provide opportunities for data handling and interpretation, problem-solving, group working and discussions with academic staff. Interactive lectures provide contexts and overviews of topics to guide student-centred learning. Student learning is supported by audio-visual material, specialist software packages, paper based worksheets, and computer modelling exercises. The University's on-line Learning Environment Blackboard is used to enhance the students' learning experience, including links to relevant on-line resources and background reading, online facilities for interaction and coordination (eg. Wiki's), during practical group working (field visits, workshops) and communication between tutors and students.</p> <p>Scheduled learning includes: Interactive lectures, guest lectures, tutorials, workshops and field visits, external visits.</p> <p>Independent learning includes hours engaged with essential reading, assignment preparation and completion. Students will be encouraged to use a facilitated online</p>

collaborative working approach (such as a wiki) to support practical group working.

Key Information Sets Information

Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are

<i>Number of credits for this module</i>					30
Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	
300	72	228	0	300	

The table below indicates as a percentage the total assessment of the module which constitutes a -

Controlled component: Contemporary Skills Portfolio including defence
Coursework: Funding bid; Plan and pitch.

Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:

Total assessment of the module:		
Portfolio with defence		50%
Coursework assessment percentage		50%
		100%

Reading Strategy

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.
 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.

Indicative Reading List

The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms.

Books The latest edition of

- Frankham, R., Ballou, J. J. D., & Briscoe, D. D. A. Introduction to Conservation Genetics. Cambridge University Press.
- Clewell, A. F. & Aronson, J. Ecological restoration: principles, values, and structure of an emerging profession. Island Press.
- Scofield, R. *The Social Entrepreneur's Handbook: How to Start, Build, and Run a Business That Improves the World.* McGraw-Hill.

	<p><u>Journals</u></p> <ul style="list-style-type: none"> • Conservation Biology • Biological Conservation • Trends in Ecology and Evolution • Conservation Evidence • Landscape Ecology • Journal of Applied Ecology • Ecology and Society <p><u>E-resources</u></p> <ul style="list-style-type: none"> • Bio-mimicry 3.8 (http://biomimicry.net/) • Centre for Alternative Technology (http://www.cat.org.uk/) • Wildlife Conservation Network (http://wildlifeconservationnetwork.org/) • Whitley Fund for Nature (http://whitleyaward.org/winners/) • Wildlife and Countryside Link (http://www.wcl.org.uk/) • Collaboration for Environmental Evidence (http://www.environmentalevidence.org/) • United Nations Environment Program (http://www.unep.org/)
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Part 3: Assessment	
Assessment Strategy	<p>The Assessment Strategy has been designed to support and enhance the development of both subject-based and employability skills, whilst ensuring that the modules Learning Outcomes are attained, as described below. The assessments are designed to underpin students' learning and skills acquisition in the module and to provide for learning beyond the material delivered in the classroom. Assessments includes both summative (assessment that contributes to module mark) and formative (assessment that does not contribute to module mark) assessment and feedback opportunities.</p> <p>The Controlled Conditions component of the assessment (Component A) comprises a defended contemporary skills portfolio. The portfolio will contain for example: a written review of a contemporary conservation issue and details (emails, letters, minutes of meetings, petitions, blog posts, tweets, press release) of advocacy carried out with local politicians, other decision makers and the public; outputs from workshops on conservation genetics, restoration ecology, databases; case study of conservation entrepreneurship; and a log of networking activities carried out including talks attended and field visits undertaken.</p> <p>The Coursework component of the assessment (component B) is made up of two elements. The first element will require the students to write a funding bid for a small, achievable project that they could feasibly carry out themselves. The assignment involves selecting an appropriate funder and completing the entire application form as per the guidance notes. The second element will require students to write and pitch a business plan to a panel of ethical 'investors'. The proposed business must combine technological innovation with a clear environmental benefit.</p> <p>Opportunities for formative assessment are embedded in the module teaching and take a variety of forms, including: in class and on-line tests and quizzes, problem-solving workshops, and model answers for past exam questions.</p> <p>Assessment criteria will be made available to the students in the module guide at the start of the module. All work is marked using the Department's Generic Assessment Criteria, which in turn has been developed with reference to a range of external reference points, including the QAA Code of</p>

	Practice on Assessment of Students, UWE's Learning, Teaching and Assessment Strategy, and UWE's E-learning policy.
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Identify final assessment component and element		
% weighting between components A and B (Standard modules only)	A:	B:
	50%	50%
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Contemporary skills portfolio with defence	100	
2. (etc)		
Component B Description of each element	Element weighting (as % of component)	
1. Funding Bid	60	
2. Pitch of Business Plan.	40	

Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Contemporary skills portfolio	100	
2. (etc)		
Component B Description of each element	Element weighting (as % of component)	
1. Funding Bid	60	
2. Pitch of Business Plan	40	

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.