Date: 08-05-2021

BSc (Hons) Wildlife Conservation and Environmental Management

UCAS code	CD14
Institution code	H12
Duration	4 years (full-time) including a one-year work placement. A three year programme is available for applicants with at least two years, full-time relevant work experience.
Start date	September 2022
Accredited by	Chartered Institute of Ecology and Environmental Management (CIEEM)
Location	Harper Adams University campus (and location of work placement)*

The course

This course provides comprehensive training in modern wildlife management techniques. You will develop a coherent understanding of the scientific methodology behind effective management techniques for our wild flora and fauna, and gain hands-on experience in the techniques of collecting, analysing and interpreting data for the conservation of our wildlife and natural resources.

Key features include:

- Residential field trips in years 1 and 4 to underpin and contextualise what you learn.
- A range of field trips and visits to relevant local and national organisations to provide real life experience and to meet professionals in their field of work.
- A strong focus on animal behaviour and the relationship between species and the environment.
- A focus on the practical application of theory to give you the skills to succeed in your chosen career.

Duration

4 years (full-time) including a one-year work placement. A three year programme is available for applicants with at least two years, full-time relevant work experience. Please contact Admissions for further information on this option.

A-level entry requirements

- Offers tend to be in the region of **88 - 104** UCAS points (from A2 exams only)
- Students should typically be studying **3 subjects at A2 level** to be considered
- An understanding of a science based subject, whether through a taught qualification, beyond GCSE level, or independent learning, would be preferable. Evidence of independent learning should be included within your personal statement.
- **4 GCSEs at grade C/4 or above**, including English Language, Maths and a Science
- Applicants can expect to receive offers including specific grades in specific subjects (for example, a B or C at A level, or an M or D for BTEC modules)

- Key Skills (and other level 2 variants) and First Certificates/Diplomas are not accepted in place of GCSE passes
- Overseas applicants please check our English Language Requirements
- The majority of candidates will not be called for an interview and a decision will be made via UCAS Track. However, for some students a telephone interview or campus based guidance session will be required. We will simply want to meet you to understand if the course is the right choice for you and to discuss your application in more detail. We will be keen to know your reasons for choosing the course and your career aspirations.
- We have developed a range of measures and initiatives to give everyone the best chance to access our undergraduate degree programmes. The main feature of **Access to Harper** is our contextualised offer scheme. A contextualised offer is an offer which is reduced, by one grade or more from the standard entry requirement and is made to those applicants who may have experienced personal circumstances which put them at a disadvantage during their education, such as attending a low achieving school, living in an area of low participation in Higher Education or being a Care Leaver. The aim of this is to make the University more accessible for those applicants who may not have previously thought that they were eligible to apply. We have also introduced reduced entry requirements for those applicants who are over 21 years of age and further initiatives to make the application process easier for those applicants who need it.

  To check if you qualify please visit the Access to Harper page.

Note: Entry Requirements are for guidance only, please check the UCAS website or contact Admissions for further information.

Work placement

Studying an accredited CIEEM course in Wildlife Conservation opens up a range of graduate careers. You will spend your placement year working in a key wildlife conservation sector of your choice. Placements can be matched to your career aspirations to help you develop skills, knowledge and understanding that will improve your employability.

Key skills you will develop may include; species and habitat management/survey, research and interpretation data, GIS skills, fieldwork techniques, observations of animal behaviour, and sustainable project and land management approaches.

Current placement employers include public bodies such as; Natural England, Environment Agency, Forestry Commission, Local Authorities, through to organisations/consultancies such as; Keswick Wildlife Park, RSK ADAS, Eurofins, Game & Wildlife Conservation Trust, National Trust, The Wildlife Trusts, Field Studies Council. Placement gives you unique prospects as employers value the combination of theory and hands-on experience.

Accreditation

This course has been awarded Chartered Institute of Ecology and Environmental Management (CIEEM) accredited degree course status. We are one of the first UK universities to receive this accreditation.

Teaching and learning

What you study

This course provides comprehensive training in modern wildlife management techniques and is designed to introduce key concepts of wildlife conservation, biodiversity and sustainable resource management. Students will develop a broad understanding of the scientific principles required for effective management of our wild flora and fauna, which is increasingly coming under pressure as a result of human activity.

Combined with a sound scientific underpinning students will gain hands-on experience in the techniques of collecting, analysing, and interpreting data for the conservation and management of our wildlife and natural resources.

Field trips

All first year Wildlife students attend the practical ecology field trip as part of their course. The trip provides students with practical field skills and techniques of quantitative analysis. It normally takes place in May at the Field Studies Council Slapton Ley Field Centre in Devon. This is a seven night residential course, and costs £50*.

In Year 4 there is also the option for final year students to attend a residential Field course to Africa in investigate the management, behaviour and conservation practices of key taxon. Assessment will be in the form of a research project. Costs are likely to be around £2000

All final year wildlife students attend a five night residential field course, currently situated on Anglesey. The course provides students with an opportunity to investigate a real world issue of relevance to the environment and provides advanced data collection, analysis, project management and presentation skills. The trip normally takes place in the autumn term and costs £30*.

**cost includes all meals, accommodation and transport to and from the field centre, and are correct as of the 2018/19 academic year.*

Teaching and learning

Here at Harper Adams we are committed to high standards in teaching and learning.

Teaching methods include student centred learning, resource based learning, independent project work, all of which is delivered in a variety of formats: including lectures, seminars and tutorials. In addition to this, research-led learning is encouraged where students can be exposed to relevant research in a number of ways, from learning about the work of others and its relevance to wildlife resource management to conducting their own studies and field experiments.

To further underpin the applied nature of this course visiting speakers from within the sector are used and practical field work and site visits form essential elements in the learning method as they provide the contextual relevance for students to establish the link between theory and practice.

* During the Covid-19 Pandemic the University is delivering blended learning. Government guidance is being constantly reviewed to establish the learning events which can be delivered face to face. Please refer to our frequently asked questions for further details.

Assessment methods

Assessment of student learning is conducted using a variety of methods. Each course module is assessed by a combination of coursework and an end of year exam. A part of the assessment process, student feedback forms an important element in the learning process. All students receive verbal and written feedback on their coursework and exam scripts.

Example of assessment methods include:

- Time constrained exams
- Flora and fauna Identification test
- Management plans
- Essays / case studies
- Field reports
- Practical examinations
- Poster presentations

Careers

The breadth and flexibility of this industry accredited course means our students go on to careers in a wide range of areas.

Graduates can expect to find employment in a diversity of sectors revolving around the sustainable land use and management. A range of organisations including local government, large corporations, developers and NGOs such as Wildlife Trusts employ staff with expertise in survey, management and assessment of wildlife populations.

Projects, large and small, require work to mitigate impacts, particularly where protected species and habitats of conservation value are present. An understanding of animal behaviour and welfare, population ecology, field skills, conservation science and underpinning environmental legislation will open up opportunities for graduates from this course. Placements have seen students working with ecological, and planning consultants, the National Trust, and AONB advisors working with farmers to enhance wildlife habitat. Graduates can also expect to find employment within the more traditional countryside management sector in warden and management roles with a focus on ecological management of land and wildlife.

What will I study?

	Study time (The percentage of time spent in different learning activities)			Assessment methods (This is the breakdown of assessment methods)		
Year	% time in lectures, seminars and similar	% time in independent study	% time on placement	Written exams	Practical exams	Coursework
1	35%	65%	0%	24%	0%	76%
2	33%	67%	0%	30%	0%	70%
3	0%	0%	100%	0%	0%	100%
4	22%	78%	0%	18%	9%	73%

Year 1		Year 2		Year 3	Year 4	
Skills for the Environmental Scientist (C4009C17)	15	Research Methods for Environmental Scientists (C501017)	15	Placement year	Honours Research Project (HRPROJC17)	30
Introduction to Ecology (C4004C17)	15	Environmental Quality and Protection (C5015C17)	15		Environment and Geography Field Course (C6007C17)	15
The Natural Environment and Climate Change (C4006C17)	15	Planning and Development (R5011C17)	15		Environmental Assessment and Management (C6008C17)	15
Introduction to Wildlife Conservation in the UK (C4016C17)	15	Wildlife Identification and Conservation (C5011C17)	15		Applied Ecology for Management (C6003C17)	15
Environmental Survey Technologies and Field Skills (C4003C17)	15	Pollution, Ecology and Brownfield Reclamation (C5012C17)	15		International Perspectives on the Management of Animal Populations (C6010C17)	15
Introduction to Animal Welfare, Behaviour and Ethics (A4009C17)	15	Philosophy of Zoos (A5007C17)	15		**Options**	
Adaptive Biology (A4002C17)	15	Principles of Animal Behaviour and Welfare (A5008C17)	15		Geographical Information Systems and Land Use (C6009C17)	15
Contemporary Countryside and Environmental Issues (C4012C17)	15	**Options**			Ecosystems and Environmental Resource Management (C6006C17)	15
		Conservation Biology (C5022C17)	15		Developing and Managing Environmental Projects (C6005C17)	15
		Introduction to Entomology (C5024C17)	15			

Skills for the Environmental Scientist

Year of study 1
Code C4009C17
Credits 15
Core/option Core
Module contact Mrs Kath Leigh

This module helps develop students' confidence and competence in the academic skills and professional practices that will enable success within their Environment course. The module has four main strands or themes:

- 'Academic skills' including exploring reading for success, writing in different ways and information searching.
- 'Professional futures' - preparing for placement and employment.
- 'Learning well' which promotes students' self-monitoring and planned improvements in individual approaches to learning
- 'Digital citizenship' where students review the online and information technology skills that they

need to succeed in study and in their professional practice.

Introduction to Ecology

Year of study 1
Code C4004C17
Credits 15
Core/option Core
Module contact Dr Nicky Hunter

Ecology is about understanding the dynamic changes in individuals, populations, communities and ecosystems in relation to each other and the physical environment. This requires knowledge of the essential processes that determine the distribution and abundance of organisms and the variety of complex biotic and abiotic interactions that take place. This module is designed to provide students with a general understanding of the ecology of living systems together with an introduction to basic ecological theory. This module will include a field studies element which will deliver the practical elements of identification, sampling and analysis of data collected.

The Natural Environment and Climate Change

Year of study 1
Code C4006C17
Credits 15
Core/option Core
Module contact Simon Irvin

The countryside and the quality of the rural environment are inextricably linked to studies in the natural environment. This module is designed to investigate the many aspects of the natural environment which impact on the British countryside. This will include the study of rainfall patterns in the UK and causes of climatic change, which has a marked effect on the range of natural habitats in the British countryside. The variety and nature of soils in the UK and how these affect the land quality will be considered. Conservation and the assessment, creation and management of habitats commonly found in, and around agricultural lowland sites and the impact of pollution from agricultural sources will be investigated.

- Outline the causes and effects of climatic change on the natural environment.
- Identify and assess soil relationships, including soil texture, structure, organic matter and soil processes such as erosion.
- Appraise the need for conservation of species and habitat protection.
- Recognise a variety of UK habitats and outline how these can be managed to the benefit of the environment.

Introduction to Wildlife Conservation in the UK

Year of study 1
Code C4016C17
Credits 15
Core/option Core
Module contact Dr Andrew Cherrill

This module looks at the biodiversity and range of UK wildlife in the past, present and the predicted trends in the future.

The impact of man on wildlife populations will be explored, including the effects of land use change (e.g. agricultural intensification, land abandonment and urbanisation), exploitation, non-native introductions (including wildlife diseases), pollution and climate change. Methods for monitoring, wildlife conservation and sustainable management of wildlife resources will be introduced. Competition between species for limited resources and the effect predicted of climate change and impact of wildlife diseases on both the range and diversity of UK wildlife will also be considered.

Environmental Survey Technologies and Field Skills

Year of study 1
Code C4003C17
Credits 15
Core/option Core
Module contact Simon Irvin

This module provides an essential understanding of the main components of applied contemporary field survey / monitoring techniques and procedures. It provides experience in the practical application of these techniques and procedures across a representative range of habitats and environments and vital awareness of risk assessment in field survey work.

The skills and knowledge gained will enable students to undertake survey and monitoring work using a range of practical methods, understand the range of techniques involved and their relative strengths and limitations and to present and interpret data in a coherent and appropriate way.

This module complements the modules at level 4: The Natural Environment and Climate Change and Introduction to Ecology and links to the level 5 module Habitat Ecology and Conservation Management. These modules are core modules for all routes accessing this module and form a fundamental knowledge and practical base for any student entering the environmental and wildlife sector. The module content will also provide material which directly relevant to placement work undertaken by the majority of the students.

Introduction to Animal Welfare, Behaviour and Ethics

Year of study 1
Code A4009C17
Credits 15
Core/option Core

This module will introduce students to the science of animal behaviour and the importance of behaviour in our understanding of animal welfare. It will also consider the ethics of society's usage of different types of animals and the role of legislation and different organisations in the promotion of the interests of animals. Examples will be drawn from a range of diverse species and scenarios to illustrate the principles and practices discussed.

The content of this module will be of benefit to anyone considering working either directly or indirectly with animals in a range of environments. An appreciation of the science of animal behaviour and welfare and how underlying ethical values may influence the acceptability of animal use, will enhance the ability of the individual to undertake welfare assessments of the animals they are responsible for. The knowledge and understanding gained in the module will be an important foundation for those going on to study the module Principles of Animal Welfare and Behaviour.

Adaptive Biology

Year of study 1
Code A4002C17
Credits 15
Core/option Core
Module contact Professor Mark Rutter

This module provides a broad overview of how the process of evolution through Darwinian natural selection has resulted in the diversity of life seen on Earth. Historic theories of evolution are evaluated, and the mechanisms underpinning evolution are explored, from microevolution, through speciation to macroevolution. The role of DNA and mechanisms of inheritance are studied, as is animal taxonomy. The evolution of humans is considered, along with the history and process of animal domestication. The effects of evolution and domestication on animal physiology and behaviour are explored. The module is designed to give the students a deeper understanding of evolution and its role underpinning the biological sciences.

Contemporary Countryside and Environmental Issues

Year of study 1
Code C4012C17
Credits 15
Core/option Core
Module contact Dr Jonathan Cooper

This module is designed to provide students with a background to contemporary countryside and environmental issues and their implications for resource management.

The principal focus for the module will be the UK, with appropriate international comparison and contextualisation.

The module will provide a background to the pressures and conflicts that occur within UK and global countryside and environmental management. It will show how government and other organisations use a range of methods to ensure sustainable management of the countryside, landscapes and natural / semi-natural environments and how environmental change influences the way in which the countryside is managed.

Research Methods for Environmental Scientists

Year of study 2
Code C501017
Credits 15
Core/option Core
Module contact Dr Andrew Cherrill

The module develops the skills and knowledge necessary to successfully complete the Honours Research Project. Enhanced research confidence will also be an employability skill for the Placement Period and careers on graduation.

The module will cover the key elements of the research process, set in the context of the student's own course discipline. Students will examine the academic role of research and how it informs professional and managerial practice. They will enhance their ability to locate, select and critically evaluate information associated with a particular problem, using a range of sources and particularly peer reviewed empirical studies. By carrying out statistical analysis using appropriate software, the students will develop their ICT skills and further their understanding of the role of statistics in the research process.

Environmental Quality and Protection

Year of study 2
Code C5015C17
Credits 15
Core/option Core
Module contact Paul Lewis

The maintenance of high quality soil, water and air is an essential component of sustainable development. The countryside is used in a wide variety of ways, each of which can have an impact on the environment. For example, pesticides and fertilisers used in agriculture, fish farming and forestry, if not carefully controlled, may affect the air, water and soil quality and eventually contaminate food. The disposal of wastes, access to the countryside for leisure and amenity use and the introduction of new technology may also have an environmental impact. Changes to ecosystems resulting from the emission of greenhouse gases and ozone depleters could significantly affect the rural landscape.

This module will allow the student to define what is meant by soil, water and air quality and to identify some of the major risks to environmental quality arising from our varied use of the countryside. Approaches to managing the countryside so as to maintain or improve the environmental quality will then be evaluated together with assessment of appropriate environmental legislative requirements.

- Select appropriate approaches to assessing soil, air and water quality
- Identify and evaluate the severity of the various risks to soil, air and water quality
- Formulate strategies for protecting soils, air and water and for protecting the countryside from the risk of pollution
- Compare the current status of a site with the appropriate environmental standard(s).

Planning and Development

Year of study 2
Code R5011C17
Credits 15
Core/option Core
Module contact Emma Pierce-Jenkins

This module seeks to build-upon the level 4 modules, Introduction to Rural Geography and Economics and Contemporary Countryside and Environmental Issues. The module provides a broad understanding of the statutory spatial planning system, covering both national and local planning policy, whilst exploring the particular challenges associated with rural development and the delivery of sustainable development.

This will include an analysis of policy and practice in a range of topics such as housing, agriculture, renewable energy, infrastructure planning and protection of designated areas.

The module will provide a grounding in spatial planning, upon which the level 6 modules, such as Environmental Assessment and Management, can be developed.

Wildlife Identification and Conservation

Year of study 2
Code C5011C17
Credits 15
Core/option Core
Module contact Dr Nicky Hunter

This module aims to provide students with an extension of knowledge from the level 4 ecology module and to focus primarily on the synthesis and analysis of the ecological requirements of species and habitats, and the issues around conservation and funding currently in the UK. In order to fully understand the ecology of species, correct identification and adaptation features for the major groups of fauna and flora needs to be recognised.

A practical knowledge and skills-based understanding of the selection and use of identification keys and community classification systems is one of the corner stones to effective assessment of biodiversity for conservation. Students will develop practical knowledge of, and skills in, the use of species identification techniques. Particular attention will be focused on species that are associated with the UK countryside, but the module will also address globally applicable general principles and concepts. Essentially a hands-on approach to learning is encouraged introducing students to the flora and fauna found in a range of habitats which will reinforce the competences of survey skills studied previously.

Pollution, Ecology and Brownfield Reclamation

Year of study 2
Code C5012C17
Credits 15
Core/option Core
Module contact Dr William Hartley

The aim of the module is to interpret the effects of anthropogenic pollution on ecosystems. You will evaluate, monitor and quantify the ecological impact of environmental pollution and the scientific and methodological problems associated with contaminated land reclamation. You will investigate patterns of environmental contamination, accumulation and chronic toxicity caused by toxic metals and other hazardous wastes and the response of plants and animals to pollution, the evolution of pollution tolerance

and the effectiveness of bioremediation treatments.

Philosophy of Zoos

Year of study 2
Code A5007C17
Credits 15
Core/option Core

Zoos and menageries began as prestigious private collections, notably amongst the ruling classes, though even from the times of Alexander, animal collections enabled the study of animals. In the 19th Century many zoos were established as a prestigious addition City resources (particularly in capital cities) where the middle classes could promenade and be entertained, as part of the wholesome "self-improvement". Some Zoos were established to protect endangered species (e.g. bison). The primary role of entertainment continued to the 1960s but as societies views have changed, zoos have had to revise their "missions". Through the British and Irish Association of Zoos and Aquaria (BIAZA) and similar groups zoos have expanded their role. Legislation has also been placed on the statute books which establish criteria for licensing of zoos. These include zoos establishing, for example, educational, breeding, conservation and preservation. Furthermore the types of animal enclosure have changed as the behavioural and welfare requirements of species have been appreciated. The use of enrichments is particularly important to prevent boredom and welfare insults to the animals on display. The survival of zoos depends on public understanding of their aims, objectives and policies. The future of animal collections will mean changing roles and involvement with captive breeding and visitor participation. However, there is an increasingly rich resource of media material where animals are filmed in their natural environment. There is an ethical argument concerning keeping animals in collections and whether there is a need for such.

Principles of Animal Behaviour and Welfare

Year of study 2
Code A5008C17
Credits 15
Core/option Core

Their complex behaviour is one of the main factors that distinguish the Animalia from the other Kingdoms of Life. This module aims to explore the richness and diversity of the behaviour we see in the animal kingdom, considering the various factors that have influenced its evolution. Although there will be an emphasis on the more complex behaviour patterns seen in the higher animals, this module will consider the behaviour of animals in general, and will not focus on just the domesticated species. This diverse approach will help in the understanding of the general principles which underpin the development of the various patterns of behaviour we observe in animals.

Animal welfare is of major concern to those working in the animal industry as well as the general public. In this module, students are encouraged to consider the issues that affect the welfare of many groups of animals such as farm, companion, zoo and research animals. The physiological and behavioural changes which occur when welfare is compromised will be studied and how these may be used to assess an animal's welfare status. The philosophical and ethical considerations of how we use animals will be discussed and an overview is given of the legislation which governs animal welfare across a range of species.

Conservation Biology

Year of study 2
Code C5022C17
Credits 15
Core/option Option

This module is designed to develop the appropriate skills and underpinning knowledge concerned with the science of conservation biology and provides a firm grounding of the current threats to biodiversity loss and the strategies that conservation biologists use for management, and protection of vulnerable species and their associated ecosystems. Local, national and international examples will be used to underpin key

concepts and practices.

Introduction to Entomology

Year of study 2
Code C5024C17
Credits 15
Core/option Option
Module contact Professor Simon Leather

Insects make-up about 70% of all animal species and are important components of all terrestrial and freshwater ecosystems. It is, therefore, essential that those working in the field of entomology have a working knowledge of and ability to identify species belonging to the major insect groups. This course will address this requirement by introducing the biology and systematics of the major insect groups.

This module will also highlight the crucial role that taxonomy plays in agriculture, pest management and conservation. A brief outline of what is taxonomy, what are species and the tools taxonomists use will also be provided.

Placement year

Year of study 3
Core/option Core

Read our dedicated Placement Learning pages for information on the many benefits of the placement year.

Honours Research Project

Year of study 4
Code HRPROJC17
Credits 30
Core/option Core

To qualify for an honours degree a student must demonstrate the capacity for sustained, independent and high quality work. One of the most important vehicles for the demonstration of this capacity, and for developing the necessary skills, is the individual Honours Research Project. Each student will therefore be required to complete such a project under the general supervision of a member of staff and present the results in a project report and in a *viva voce* exam, with two tutors, which will also test to a high level, skills of communication and rational argument. This major exercise represents one-quarter of the final year studies and will therefore have an important influence on the classification of award.

Environment and Geography Field Course

Year of study 4
Code C6007C17
Credits 15
Core/option Core
Module contact Dr Andy Wilcox

Sustainable solutions to environmental problems are often complex and require a combination of different disciplines in order to achieve an acceptable outcome. Typically, such activities are carried out by a single project team or collection of project teams that each offer their own area of expertise to the solution. This module allows students to develop their high level skills and abilities by undertaking a team project based on a real situation or issue. The project will be focused around a residential field course and combine elements of the entire CEWG portfolio, including aspects of countryside, environmental and geographical management.

Environmental Assessment and Management

Year of study 4
Code C6008C17
Credits 15
Core/option Core
Module contact Emma Pierce-Jenkins

Environmental protection and enhancement is a crucial element of achieving sustainable development and features heavily in International, European and UK legislation and policy, a key requirement of which is that potential environmental impacts of human activities are identified and considered in decision making.

In seeking to protect our environment and deliver sustainable development it is crucial that we are able to recognise when and how human activity will impact upon the environment and how best to mitigate and manage those impacts. This module will examine the relevance and relative merits of a range of formal processes for assessing likely environmental impacts of human interaction with our environment. It will build upon earlier modules relating to environmental policy and legislation, as well as developing conservation, environment and planning themes from earlier modules.

It studies in detail Environmental Impact Assessment (EIA) and Environmental Management Systems (EMS) in terms of legislative compliance, assessment techniques, environmental protection and mitigation strategies etc. and introduces Strategic Environmental Assessment (SEA)/ Sustainability Appraisal.

Applied Ecology for Management

Year of study 4
Code C6003C17
Credits 15
Core/option Core
Module contact Dr Nicola Randall

Humans depend upon biological processes for their continued existence and for the provision of ecosystems services. The high rates of biodiversity loss remain the subject of concern. This module aims to provide an understanding of the concepts of biodiversity and of ecosystem services, and the use of biodiversity as an ecosystem service provider

In order that biodiversity may be conserved or exploited sustainably, it is important to have an understanding of how populations and communities of organisms are distributed and function and how they react to disturbance. This module is designed to provide students with a background to the complexities of community organization and the general factors that affect community stability. The module subsequently demonstrates how ecological science can be applied to real world conservation and management situations such as the design of nature reserves, pest control, and the sustainable harvesting of populations.

International Perspectives on the Management of Animal Populations

Year of study 4
Code C6010C17
Credits 15
Core/option Core
Module contact Dr Nicola Randall

This module aims to enable students to use evidence-based research to inform management decision making for animal populations. Through their behaviour, organisms establish their place in the environment and their relationship with other species. Success is also affected by human induced factors such as habitat loss and fragmentation, introduced/invasive species, climate change and overharvesting.

This module will build on the animal behaviour concepts studied in levels 4 and 5, and how behavioural strategies and adaptations of different species combine with external factors to influence their fitness and survival. The module will consider how an understanding of behaviour can aid wildlife management with particular reference to one or more species of concern.

Geographical Information Systems and Land Use

Year of study 4
Code C6009C17
Credits 15
Core/option Option
Module contact Dr Andy Wilcox

Land management is a complex process involving a combination of agricultural, environmental, recreational and social issues. Geographical Information Systems (GIS) allow storage, analysis and dissemination of spatial information are an essential tool for resource management. This module will provide students with an overview of GIS theory, application and software and allow students to develop practical skills relating to spatial data capture, analysis and presentation using the ESRI ArcGIS platforms.

Ecosystems and Environmental Resource Management

Year of study 4
Code C6006C17
Credits 15
Core/option Option
Module contact Paul Lewis

This module is specifically designed to progress the practices and principles taught in the level 4 module, Environmental Monitoring and the level 5 module Environmental Quality and Protection. Countryside ecosystems are diverse, whether terrestrial or aquatic, and are associated with wide ranging habitats, functions, management and services. All such ecosystems have considerable links to, and impacts on the environment and the resources of water, soil and air. The maintenance of high quality resources is an essential component of sustainable development and land use. This module will allow the student to analyse abiotic factors associated with countryside terrestrial and aquatic ecosystems, whether managed or natural, and consider associated environmental processes and science in detail. Ecosystem services, sustainability indicators and sustainable land use systems will be core elements throughout this module's delivery. There will be an emphasis on UK systems, both agricultural and natural, but consideration will also be given to overseas case-studies and examples.

Developing and Managing Environmental Projects

Year of study 4
Code C6005C17
Credits 15
Core/option Option
Module contact Emma Tappin

Countryside and environmental management are complex and multi-disciplinary areas of practice. For both non-governmental organisations such as National Parks, Wildlife Trusts and the National Trust and government agencies such as Natural England, short term projects are an important mechanism to achieve desired environmental and social changes. This drive towards project delivery is as a result of funding sources increasingly being linked to short-term projects.

The implementation and success of these projects requires a sound understanding of the principles of project management. This module aims to give students insight into project development and management for clients. This module will be action-based learning where students actively work on live projects for clients, developing proposals and competing for 'support' or 'funding'. Students will gain insights into writing project proposals, competing in this bidding process, working and negotiating with clients and implementing projects proposals. They will be encouraged to develop as reflective practitioners in order that they can improve their skills for future practice.