



# BSc (Hons) Geography and Environmental Management

<b>UCAS code</b>	F8D4
<b>Institution code</b>	H12
<b>Duration</b>	4 years (full-time) including a one-year work placement
<b>Start date</b>	September 2019
<b>Accredited by</b>	<a href="#">Royal Geographical Society (with IGB)</a>
<b>Location</b>	<a href="#">Harper Adams University campus</a> (and location of work placement)

## The course

This Geography and Environmental Management focused course is multidisciplinary in nature and will introduce you to elements of environment, society and economy before moving on to topics such as sustainable development and environmental management.

You will gain practical knowledge of geographic information systems (GIS) applications and will develop a detailed understanding of environmental planning legislation, waste/resource management issues and environmental management.

Practical field skills are an important element of this course and you will benefit from a residential field course in the UK during your first and fourth year of study. Year two students will undertake a residential field expedition to a European location.

Final year students will be given the opportunity to develop an independent research project on a geographical/environmental topic of their choice; they will also learn about specialist current topics such as sustainable energy.

## A-level entry requirements

- Offers tend to be in the region of **96** UCAS points
- A level Geography required
- Students should typically be studying **3 subjects at A2 level** to be considered
- **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](#)

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

## Work placement

Work experience is an excellent way to find out which careers you are interested in and to improve your employment prospects. To support the taught elements of this programme, students will undertake a supported year-long placement, working in a course-relevant environment with possibilities both in the UK and overseas.

Placements are organised and managed through a dedicated placement unit at Harper Adams University; staff will help you to find a placement within an organisation suited to your career aspirations.

Examples of current placement employers include: ADAS, Agrii, Alltech E-CO?, Atholl Estates, Conwy County Borough Council, Network Rail, Severn Partnership and Wessex Water.

However, you would not be restricted to the employers listed above. You would be supported to arrange a placement in other relevant organisations which offer roles linked to geography and/or environmental management.

Having placement experience makes you stand out from other graduates when you complete your course. Such experience is valued highly by graduate employers.

## Accreditation



This programme has been accredited by the Royal Geographical Society (with IBG). Accredited degree programmes contain a solid academic foundation in geographical knowledge and skills, and prepare graduates to address the needs of the world beyond higher education.

The accreditation criteria require evidence that graduates from accredited programmes meet defined sets of learning outcomes, including subject knowledge, technical ability and transferable skills.

## Teaching and learning

### What you study

This course will develop student skills and knowledge in the following core areas;

- Introduction to the natural environment
- Introduction to geomorphology
- Environmental monitoring
- Rural geography and economics
- Geography field skills (residential field trip)
- Social geography and sustainable development
- Climate change, mitigation and adaptation
- Waste and resource management
- Environmental quality and protection
- Geographical information skills and land use
- Landscape development and assessment
- Food security and sustainable food production

### Field trips

All first year Geography students attend the **Practical Geography Skills** 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\*.

All final year Geography 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.

## 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 accredited course means that our students go on to have successful careers in a wide range of sectors.

“As a degree subject, geography is highly respected by employers. Geography graduates have one of the highest rates of graduate employment, pursuing a wide range of career paths. It’s often said that there is no such thing as a geography job; rather there are multiple jobs that geographers do. Whether you have just completed a geography degree, or are thinking ahead to your next steps are planning what to do after it, we have information about your employability, work experience and career options, including advice about postgraduate study, how to plan your career, and how to find and apply successfully for jobs.” – Royal Geographical Society

Geography graduates find employment in a variety of sectors, including graduate-level entry into many organisations. You will also have the transferable skills necessary for a wide range of roles, for example:

- Environmental consultancy;
- Environmental education;
- Recycling and waste management;
- Renewable energy management;

- Town and country planning;
- Water management.

# What will I study?

Year	Study time (The percentage of time spent in different learning activities)			Assessment methods (This is the breakdown of assessment methods)		
	% time in lectures, seminars and similar	% time in independent study	% time on placement	Written exams	Practical exams	Coursework
1	35%	65%	0%	41%	0%	59%
2	33%	67%	0%	0%	0%	100%
3	0%	0%	100%	0%	0%	100%
4	22%	78%	0%	18%	0%	82%

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 (HRPROJ) 30
Practical Geography Skills 1 (C4008C17) 15	Practical Geography Skills 2 (C5020C17) 15		Geographical Information Systems and Land Use (C6009C17) 15
Rural Geography and Economics (R4006C17) 15	Social Geography and Sustainable Development (C5017C17) 15		Environment and Geography Field Course (C6007C17) 15
Managing People in the Environment (C4007C17) 15	Landscape Development and Management (C5016C17) 15		Environmental Assessment and Management (C6008C17) 15
Environmental Monitoring (C4002C17) 15	Pollution, Ecology and Brownfield Reclamation (C5012C17) 15		Food Security and Sustainability (F6011C17) 15
Contemporary Countryside and Environmental Issues (C4012C17) 15	Planning and Development (R5011C17) 15		Climate Change, Mitigation and Adaptation (C6001C17) 15
Introduction to Geomorphology (C4005C17) 15	Modelling Geochange and the Environment (C5018C17) 15		<b>Options</b>
Introduction to the Natural Environment (C4006C17) 15	<b>Options</b>		Developing and Managing Environmental Projects (C6005C17) 15
<b>Options</b>	Environmental Quality and Protection (C5015C17) 15		Ecosystems and Environmental Resource Management (C6006C17) 15
Language I (French, German or Spanish) (B3001/2) 15	Language II (French, German or Spanish) (B4015/17) 15		Optional Module 15
	Optional Module 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.

## Practical Geography Skills 1

**Year of study** 1  
**Code** C4008C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Simon Irvin](#)

Students are required to participate in a compulsory one week study trip, which contains field assessments for the final module mark. A student contribution of £50\* is required towards the cost of the trip.

\*costs correct as of the 2015/16 academic year

## Rural Geography and Economics

**Year of study** 1  
**Code** R4006C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Susan Ragbourne](#)

This module underpins the second year module *Planning and Development*, providing students with an understanding of key changes in rural areas and the need to balance economic, social and environmental demands on the countryside. The module also underpins the second year module *Farming Systems and the Environment* and the final year module *Farm Business Management* by introducing core economic concepts and studying agricultural and agri-environment support and subsidy mechanisms.

## Managing People in the Environment

**Year of study** 1  
**Code** C4007C17  
**Credits** 15  
**Core/option** Core

This module aims to enhance students' understanding of the link between human activities, principally recreation, and the natural environment. The module will introduce students to basic methods of assessment and management of environmental impact of typical recreational activities within the countryside and how best management practice is communicated to the wider public at range of different levels, including school children and other groups. Emphasis is placed on the need to manage conflict and develop specific visitor management techniques in order to produce sustainable management strategies within the countryside.

## Environmental Monitoring

**Year of study** 1  
**Code** C4002C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr William Hartley](#)

To understand our chemical environment we must have knowledge of pollutants, the origin of these pollutants and the harm that they may cause. This module concentrates on looking at the environment as three distinct media (air, water and land/soil), identifying a range of pollutants and their effects on the

environment. It describes how the media may be sampled for the content of pollutants. It also studies field and laboratory methods which may be employed to identify and measure quantities of pollutants. In addition, this module covers an overview of the relevant UK legislation which determines how businesses are required to monitor and control emissions from their industrial process. This module provides the basis for understanding key aspects of our environment and the scientific context of how chemicals influence soil, water and air.

- Identify pollutants in the three environmental media and the harm they may cause.
- Understand basic chemical structures of pollutants.
- Outline the legislation controlling the release of prescribed substances.
- Sample accurately the three environmental media (air, soil and water) using appropriate sampling equipment.
- Be familiar with a range of Laboratory techniques used in environmental monitoring
- Write scientific reports using appropriate structure and scientific English.

## 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.

## Introduction to Geomorphology

**Year of study** 1

**Code** C4005C17

**Credits** 15

**Core/option** Core

**Module contact** [Dr Jonathan Cooper](#)

The key theme of this module is the geomorphology of temperate, arid, tropical and polar regions over varying timescales. In particular, this module provides an insight into key geomorphological processes in the context of geology and geological history.

It also addresses how climate change is affecting global weather distributions and overall global temperatures. This module will therefore also provide the foundation to understand the change in processes in the context of climate change which is covered in more detail in other modules.

The key themes in this module complement and support other modules in this area e.g. at level 4 Introduction to the Natural Environment, at level 5 Modelling Geochange and at level 6 GIS.

## Introduction to the Natural Environment

**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 hydrological cycle in the UK and 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.
- Demonstrate a need for conservation of species and habitat protection.
- Recognise a variety of habitats on lowland farmland and outline how these can be managed to the benefit of the environment.
- State the main sources of agricultural pollution and how these can be controlled.

## **Language I (French, German or Spanish)**

**Year of study** 1  
**Code** B3001/2  
**Credits** 15  
**Core/option** Option  
**Module contact** [Zorka Besevic](#)

The purpose of this module is to develop the ability and confidence of students to use French, German or Spanish effectively for the purposes of practical communication and the exchange of information. The module aims to form a sound base of skills language and attitudes appropriate to individual interests for further study, vocational and leisure based purposes. The module outcomes reflect the module aims concerned with providing students with the basic communication skills in French, German or Spanish to fulfill realistic tasks.

## **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.

## **Practical Geography Skills 2**

**Year of study** 2  
**Code** C5020C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Jonathan Cooper](#)

This module enables you to further develop essential practical skills and undertake fieldwork at an overseas location gaining experience of a variety of geographical processes that impact on the destination.

You will build upon the first year module **Practical Skills for Geographers** and gain the opportunity to explore and investigate a wide range of natural and anthropogenic issues.

You will:

- develop knowledge and evaluate a range of geographical issues found at an overseas destination.
- design and formulate strategies and undertake a range of environmental and geographical field techniques incorporating data collection, manipulation, evaluation and analysis of results.
- demonstrate good practice in working safely and effectively as part of a project team and be able to write up field projects in the form of a concise report.
- identify, evaluate and make connections between theory and fieldwork.

## **Social Geography and Sustainable Development**

**Year of study** 2  
**Code** C5017C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Jonathan Cooper](#)

This module is concerned with the significance of space and place, in particular it attempts to understand the patterns and processes of social and environmental inequality in the context of sustainable development. Understanding the drivers of change and interconnectivity at local, regional, national and international levels are core skills for a geographer and are fundamental if sustainable resource management and development are to be undertaken.

Legislative and policy drivers will be analysed as drivers for sustainable practice. The principles of environmental, social and economic sustainability will be considered and the importance of their mutual inclusivity will be explored. A number of examples of contemporary sustainable development case studies will be considered in detail and such examples for the Global North and the Global South will be compared and contrasted.

## **Landscape Development and Management**

**Year of study** 2  
**Code** C5016C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Richard Byrne](#)

Over the centuries the countryside has undergone considerable changes and developed in an evolutionary fashion. Nowadays there are many, often conflicting, demands made on the countryside. How the assets of the countryside are assessed and recorded and how change is affected and managed is of major concern.

The module also explores landscape development and examines how landscape components have evolved over time. The module will be also be concerned with the relationship between human activity and landscape. It will deal with societal drivers of change and the effects of human activity on landscape pattern. An important part of this relationship is understanding the impact of human activity on landscapes and how these effects can be assessed using appropriate landscape assessment methodologies. Additionally it will explore the impact of recreational activities upon landscape and the process of landscape restoration.

## **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.

## **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.

## **Modelling Geochange and the Environment**

**Year of study** 2  
**Code** C5018C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Lucy Crockford](#)

Modelling the environment provides us with the opportunity to both hindcast and forecast the effect of global changes, such as climate change and other anthropogenic activities. In industry and local authorities, increasingly, models to identify problem source areas with respect to pollution, movement of resources and the future of landscape planning are employed. This module initially provides the student with skills to understand good modelling practice, the purpose of modelling and how modelling should be employed to answer specific research questions. In particular, students will experience writing their own simple models in preparation for understanding more complex models used in industry.

This module also covers vital skills for employment in industry by tasking the student with a real life scenario to be modelled as part of the assessment.

This module builds on the Introduction to Geomorphology: Landforms and Processes module and Practical Skills for Geographers module, both at level 4. The module also complements Environmental Quality and Protection and Waste Management at level 5. At level 6, the Honours Research Project in Geography will benefit from the skills acquired in this module.

## **Environmental Quality and Protection**

**Year of study** 2  
**Code** C5015C17  
**Credits** 15  
**Core/option** Option  
**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).

## Language II (French, German or Spanish)

**Year of study** 2  
**Code** B4015/17  
**Credits** 15  
**Core/option** Option  
**Module contact** [Zorka Besevic](#)

The purpose of this module is to develop further the level of competence in French, German or Spanish to enable students to function in a vocational or academic context such as a study placement. The module aims to increase students knowledge and application of language in terms of complexity, grammatical accuracy and range of structures, vocabulary and idiom. Through the development of a greater awareness of the nature of language and language learning the module seeks to encourage positive attitudes to speakers of foreign languages and other cultures, employment thereby facilitating future mobility. The module Language I or equivalent is considered a desirable pre-requisite.

## Optional Module

**Year of study** 2  
**Credits** 15  
**Core/option** Option

Choice of one 15 credit module at level 6 or level 7 from supplied list. Please contact the course manager for details of this module.

## 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** HRPROJ  
**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.

## Geographical Information Systems and Land Use

**Year of study** 4  
**Code** C6009C17  
**Credits** 15  
**Core/option** Core  
**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.

## 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.

## **Food Security and Sustainability**

**Year of study** 4  
**Code** F6011C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mr Luís de Aguiar](#)

Food security and sustainability are now topics of critical importance to mankind, and of particular and specific importance to food industry professionals. In recent years, both political instability and cross-border conflicts in addition to global climatic events have increased vulnerability and put pressure on governments and the food industry to come up with strategic food sovereignty and security solutions. Demographic pressure and climate change have been of concern regarding the extent present and future food production systems are sustainable. Intrinsic to this objective is the development of sustainable methods of food production that satisfy human nutrition needs without sacrificing biodiversity and the ecological balance it provides. Food industry managers ought to be able to appraise food security and sustainable food production systems to help them with decision-making and strategic planning processes. Food security and sustainable food production are topics of direct relevance to the contemporary food business environment and the work of the global food industry in contributing to human health and well-being.

This module explores the concepts of food security and sustainable food production in relation to the growing world population; human nutrition; health and well-being; the nature and dynamics of the global food supply system; political and geo-political influences; food aid; agricultural production; the ecological impacts of human food production; food poverty; the sustainability of urban and rural communities. Owing to the cross disciplinary nature of the topics covered in this module the scope is broad.

## **Climate Change, Mitigation and Adaptation**

**Year of study** 4  
**Code** C6001C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Emma Pierce-Jenkins](#)

This module will consider climate change mitigation and adaptation from technological and environmental perspectives. Since the early 1990s there has been an international focus on reducing greenhouse gas emissions in order to mitigate against the impacts of climate change. Examples of such technologies including renewable and other sustainable energy generation, energy efficiency measures, sustainable transportation and geo-engineering projects will be considered. Technological advances have also been driven by a need to adapt to climatic changes including fluctuations in temperature and precipitation. Examples of such technologies including sustainable drainage systems and the use of green spaces in building developments will be considered. Local case studies of mitigation/adaptation technologies / approaches will be explored in detail through field excursions and sustainability appraisals of such schemes will be conducted.

## **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.

## **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.

## **Optional Module**

**Year of study** 4  
**Credits** 15  
**Core/option** Option

Choice of one 15 credit module at level 6 or level 7 from supplied list. Please contact the course manager for details of this module.