

# BSc (Hons) Environmental Management & Sustainability

## Key Features

- Currently offering fully funded **Residential Field Courses** to the Brecon Beacons (Wales) and Provence (France).
- Extensive training and use of **state-of-the-art equipment and facilities** to measure and monitor environmental impacts, including using drones to sample and map air quality, and trail cameras to survey mammals.
- Strong emphasis on the attainment of field and lab skills enabling students to thoroughly investigate environmental issues **gaining skills demanded by employers**.
- Being taught by **internationally recognised researchers** at the forefront of their disciplines.
- **Superb links with the environmental sector** enabling students to gain additional skills and experiences outside of the degree programme.
- Opportunity to gain extra professional experience by taking a **Professional Placement Year** or **Professional Work Placement** module as part of the course.



## Module Highlights

At a time when environmental issues are at the forefront of national and international concerns, studying BSc (Hons) Environmental Management & Sustainability at the University of Worcester will prepare you for an exciting and rewarding career. On completing the course, you will have confidence to contribute effectively to the workplace and ultimately, **make a difference!**

There is flexibility within the programme to tailor the course to your own interests. Mandatory modules will equip you with essential skills and knowledge required for employment in the environmental and sustainability sectors. You then have the choice of optional modules to further enhance your learning. This brochure provides highlights for modules available to you on the Environmental Management & Sustainability course.

# Year One

## Environmental Investigations

- Develop skills in field surveying, including using GPS and drones to record and map environmental variables.
- Collect field samples and analyse using state-of-the-art equipment and laboratories.
- Learn how to analyse, interpret and present a range of environmental data.
- 4-day fully funded Residential Field Course to the Brecon Beacons.



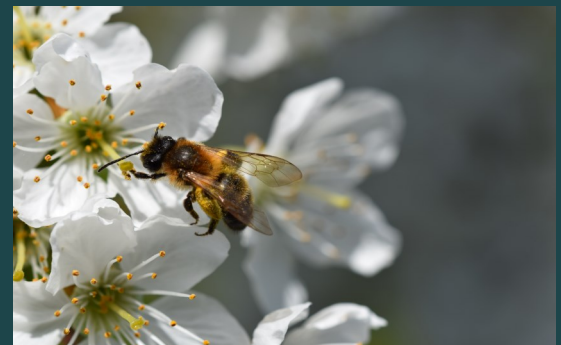
## An Introduction to Sustainability

- Develop a deep appreciation of sustainability in practice from a series of sustainability practitioners across various sectors.
- Learn to critically analyse, assess and reflect on current sustainability issues and apply this learning through novel, real world assessments.
- Work with 70 different organisations and take a leading role in planning, implementing and evaluating a range activities for the University's 'Go Green Week'.



## Management of Ecological Resources

- Understand the interactions between animals and plants and their environment.
- Develop taxonomic skills in plant and animal identification.
- Evaluate the role of ecosystem services and natural capital in the sustainable management of ecological resources.
- Visits to local Nature Reserves and Sites of Special Scientific Interest (SSSI).



## Global Environmental Issues

- Explore the role of environmental management to mitigate a range of environmental problems.
- Investigate the environmental consequences resulting from the continued exploitation of natural resources.
- Student debates on controversial environmental topics e.g. fracking.
- Field trips to a Landfill site and Anaerobic Digestion plant.



## Surveying Species & Habitats

- Receive training in a range of surveying techniques, including GPS mapping and visualisation.
- Advance use of taxonomic skills in plants, reptiles, birds, and mammals.
- Investigate the ecological value of different habitats.
- Explore the concept of indicator species.





## Year Two

### Environmental Research Skills

- Develop research proposals to explore questions around environmental management and sustainability.
- Work in groups to complete a research project of your choice.
- Learn how to analyse data and present findings to a professional standard.
- Enhance your employability: CVs, cover letters, and interviews.



### Mediterranean Environments (Field Course)

- 10-day fully funded Residential Field Course to the Provence-Alpes-Côte d'Azur region, South of France.
- Compare and contrast Mediterranean environments with those in the UK.
- Visits to the Camargue National Park, INRA Rice Research Station, the Crau Plain, and the Serre-Ponçon HEP dam in the lower Alps.



### Environmental Analysis & Interpretation

- Advance your field and laboratory skills through valuable hands-on experiences assessing real-world problems.
- Identify and evaluate the nature and extent of human impacts on the natural environment.
- Learn how to critically evaluate and discuss the findings of your own research.



### Biodiversity Conservation for Sustainable Futures

- Evaluate the importance of biodiversity in sustainable environmental management.
- Investigate the link between biodiversity, sustainable livelihoods, and mental health.
- Lectures and field visits with sector professionals.



### Climate Crisis

- Explore the science of climate change.
- Examine the social forces that shape our understanding of the climate emergency and impact climate justice.
- Participate in a mock UN climate debate and reflect on the challenges of global climate governance.



## Year Two

### River Catchment Dynamics

- Understand the tools and techniques used to monitor rivers, including laboratory and field-based water quality analysis.
- Identify natural and human factors that influence water quantity and quality.
- Investigate the interactions and relationships between river flow and water quality.
- Analyse and interpret hydrological data using telemetry.



### Meteorology & Climate

- Work with real data used by the IPCC (Intergovernmental Panel on Climate Change).
- Collect, synthesize, and analyse common climatological data sets, including meteorological satellite imagery.
- Explore the importance of scale when investigating climate and weather, from urban heat islands to global atmospheric circulation patterns.



## Professional Placement Year

The Professional Placement Year provides an additional opportunity for you to enhance your employability following graduation. This is aligned with our aim to develop students that graduate with the confidence to enter the workplace and make a difference.

During a Professional Placement Year you will be able to apply skills learnt during your course and develop new skills. This will include gaining transferable (soft) skills in addition to the more technical skills required of the discipline. Consequently, students taking a Professional Placement Year become more employable.





## Year Three

**Dissertation** - In your final year of study you get to focus on a topic of your choice in Environmental Management & Sustainability. This provides an excellent opportunity for you to harness your skills and apply your learning to explore an aspect of your course in greater detail. You will be allocated a dissertation supervisor who will support you as needed in achieving your goals. Time for your dissertation is allocated across two semesters, but you can also start your research in June prior to commencing your final year in September.

### Environmental Impact Assessment & Sustainable Development

- Explore the current Environmental Impact Assessment process within the UK.
- Debate 'development' versus 'biodiversity and conservation'.
- Examine the contribution of the EIA process to sustainable development.
- Evaluate the success of planning frameworks in delivering environmental sustainable development.



### Environmental Restoration

- Explore species reintroductions and rewilding in the UK and internationally.
- Evaluate processes by which contaminated land can be restored.
- Examine novel 'restoration' and habitat creation including green roofs and urban green infrastructure.
- Debate the role of environmental restoration and habitat creation in sustainable environmental management.



### Environmental Pollution

- Advance your field and laboratory skills with a focus on environmental pollution.
- Examine a range of topics related to pollution of the atmosphere, hydrosphere and geosphere.
- Investigate the impacts of pollutants on the environment and human health.



### Sustainable Development in Sub-Saharan Africa

- Virtual Field Course in Ethiopia.
- Examine the ideas, concepts and practical experiences that have shaped our understanding of sustainable development in Africa.
- Take on the role of farmers, government or NGOs and present your strategy for the sustainable development of the Ethiopian highlands.



## Year Three

### Corporate Environmental Sustainability

- Critically analyse Corporate Environmental Sustainability case studies.
- Examine the role of ethical and fair trading in environmental sustainability.
- Evaluate environmental management systems used by businesses e.g. ISO 14001.
- Debate best practices in Corporate Environmental Sustainability.



### River Conservation & Management

- Conduct Environment Agency 'River Habitat Surveys' to determine river habitat quality.
- Evaluate modern approaches to river management including water resource management, and river restoration.
- Develop skills in producing an environmental consultancy report.
- Guest lectures from external organisations involved with river conservation and management (e.g. Wildlife Trust, Rivers Trust).



### Atmospheric Processes & Pollution Monitoring

- Work with real problems and cutting-edge detection tools.
- Apply methods used by a range of organisations to monitor, forecast and mitigate pollution.
- Learn how to fly drones for atmospheric sampling.
- Combination of fieldwork with data analysis.



### Rural Planning for Conservation

- Investigate the main processes of land use change affecting the UK countryside over the last 100 years.
- Reflect on 'conservation' as a cultural idea rather than an objective scientific strategy in caring for the environment.
- Assess the role of agri-environmental policy for countryside management.



### Professional Work Placement

- The opportunity to undertake a 100 hour work placement in a professional setting.
- An opportunity to apply skills and knowledge learnt during your degree to the workplace.
- Develop new skills including transferable (soft) skills and more technical skills typical of the discipline.
- Create a Professional Development Portfolio & enhance your CV.

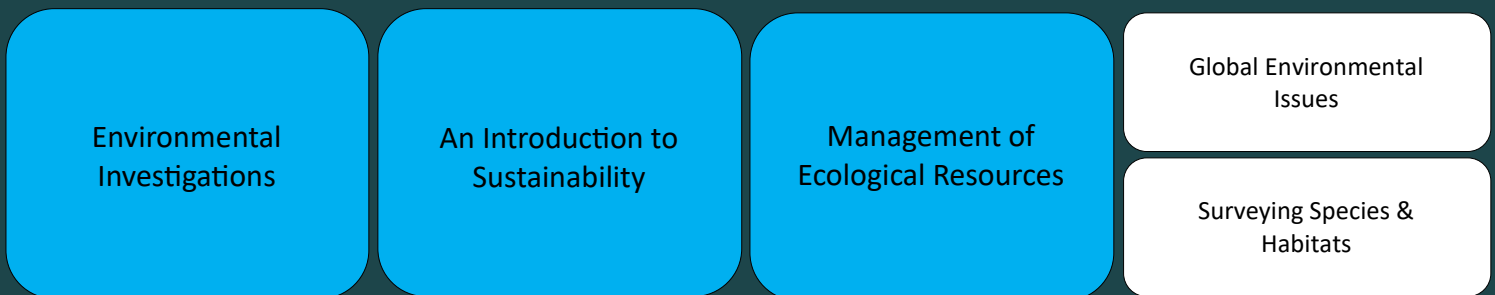




## Module Maps

Across each academic year you will take 120 credits from Mandatory and Optional modules. Below, large boxes are 30 credit modules, whilst the smaller boxes are 15 credit modules. Boxes in blue denote Mandatory modules.

### Year One



- Students are able to take a 'University-wide Module' instead of a module shown above in the white boxes.

### Year Two



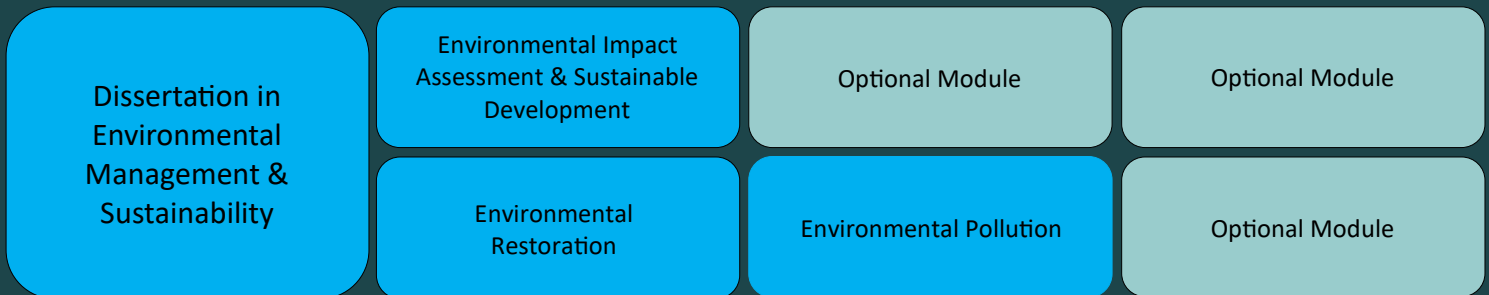
- Mandatory modules contribute 60 credits. Students are required to select four 15 credit modules from those shown below.

### Year Two - Optional Modules



# Module Maps

## Year Three



- Mandatory modules contribute 75 credits. Students are required to select three 15 credit modules from those shown below.

## Year Three - Optional Modules



## Further Information

### Admissions Office

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### Course leader

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