



ECOLOGY

BSc (Hons)



ARE YOU STIRLING?



REASONS TO CHOOSE THIS COURSE

1 ECOLOGICAL INTERACTIONS

Ecology allows you to understand the connections between organisms and their environments.

2 GLOBAL CHANGE

Ecology is a fundamental science to understand the impact of people on the environment.

3 DIVERSE SKILLS

From field work to experiments to analysing large-scale data sets, ecology trains you in transferable skills.

WHY CHOOSE STIRLING?

Stirling is a University committed to the Environment, and provides strong, research-led teaching in Ecology. Our staff and students regularly conduct research and training around the world, from the alpine tundra to the tropics. We also maintain strong contacts with external conservation and environmental organisations, and provide a hands-on approach where our students learn about people's relationship with the natural world.

COURSE DETAILS

Understanding how organisms interact with their environment and with each other is both a classic task of biological research and a pressing and practical issue in our society. More than ever, people are having an enormous impact in their environment through resource use, habitat degradation, and climate change. The degree in Ecology is designed to help you understand how animals, plants, fungi and microorganisms interact with their environment, as well as the relationship between people and the rest of the biosphere.

The course covers the core conceptual issues of Ecology in its broadest sense, but also provides hands-on opportunities for learning the techniques to study and analysing ecological relationships across all types of organisms. Whether you are interested in pursuing an academic career, or want to participate in the practical solution of ecological problems, the course of Ecology will provide you with the tools and concepts you need to succeed. The degree covers a wide range of topics including:

- Evolutionary Ecology
- Conservation Ecology
- Molecular Techniques
- Global Environmental Issues
- Animal Ecology
- Plant Ecology
- Tropical diversity
- Food Security

Final-year projects are a challenging yet valuable part of our degrees, and some have been so good they were published. These are supervised by a member of staff but may also be carried out in conjunction with an external organisation.

Examples include:

- Plant biodiversity patterns in the southern Highlands
- Buzz-pollination and ecology of bumblebees
- Climate change and the altitudinal limits of native montane plant species
- The influence of diet on seaweed fly mating and oviposition behaviour
- Heavy metal adaptation in rare plants

- Ecology and conservation of forest elephants
- Spatial and temporal patterns in pine marten diet in Scottish plantation forest

Ecology underpins sustainable development, and as such it is becoming mainstream in policy development and planning. Many graduates progress to scientific careers in research or advisory roles in government agencies and non-governmental organisations. However, the skills learned in the Ecology degree are fundamental to those required in a wide range of other careers.

FIELDWORK

Fieldwork is an essential part of an ecologist's training. Stirling's campus location is an ideal base from which to make field excursions, whether to study lekking Black Grouse in the Highlands, the growth of trees on the sides of the Ochil Hills, or the distribution of animals in the Forth Estuary.

The programme includes a compulsory field class in Scotland in the second year, and an optional 10-day field course during 4th year to Southern Europe. (Students must pay most of the costs of their travel, accommodation, and subsistence for the field courses.) The 10-day field course in ecology and animal biology takes place in the Cévennes of France; a rugged mountain landscape of exceptional natural beauty and tremendous biodiversity. The organisms that live there include over 2,300 flowering plant species (24 of which are endemic), 2,000 invertebrate species and 300 vertebrate species. Notable among these are wild boar, otters, three vulture species (including endangered Cinereous vultures), and grey wolves. The region exemplifies the deep historical connection between humans and the natural world, and is recognised as a UNESCO World Biosphere Reserve and World Heritage Site. Here you will learn techniques in identification, field sampling, experimental design, data analysis and presentation.

Students participating in the week-long field course in Spain stay at a field station 2 km away from the traditional hill-top town of Sorbas, near Almeria, in one of the driest parts of Europe. Through a series of excursions and intensive field projects students are introduced to environmental processes and resource management in arid environments.

“Studying Ecology at Stirling appealed to me because of the range of interesting topics covered throughout the course. In addition to this, the campus provides a beautiful environment for studying natural sciences.”

Viki Bates,
Year 4 student

ECOLOGY
stir.ac.uk/41

C180

MINIMUM REQUIREMENTS

**YEAR 1 ENTRY –
FOUR-YEAR HONOURS**

SQA Highers:

AAAB – one sitting

AAAB – two sittings

GCE A-levels:

BBB

IB Diploma:

32

BTEC (Level 3):

DDM

Essential subjects:

To include one of Biology, Chemistry, Mathematics or Physics.

**YEAR 2 ENTRY –
THREE-YEAR HONOURS**

SQA Adv Highers:

ABB

GCE A-levels:

ABB

IB Diploma:

35

Essential subjects:

To include Biology and one of Environmental Science, Geography or Geology.

OTHER QUALIFICATIONS

Scottish HNC/HND:

Bs in graded units

Advanced entry

Please visit <http://stir.ac.uk/ay>

Access courses:

Access courses and other UK/EU and international qualifications are also welcomed.

ADDITIONAL INFORMATION

General entrance requirements apply Please visit <http://stir.ac.uk/av> for detail

**PART TIME, ADVANCED ENTRY
AND STUDY ABROAD
OPTIONS AVAILABLE**

TYPICAL TIMETABLE

YEAR	SEMESTER	MODULE 1	MODULE 2	MODULE 3
1	1	Introduction to Ecology	Our Blue Planet, Building PlaneEarth OR People &	Practical Science Skills I: Laboratory Skills
	2	Introduction to Physiology	Our Thirsty Planet, Landscape Evolution OR	Practical Science Skills II: Field Skills
2	3	Evolution & Genetics	Introduction to Cell Biology	Biology Field Course
	4	Biodiversity	Statistical Techniques	The Biosphere
3	5	3 to 4 modules from a range of Biology and Environmental Science subjects including: Animal Physiology, Conservation Biology, Population and Community Ecology, Environmental policy and Management, Habitat Management and Restoration, Statistics using R, Geographic Information Systems		
	6	Plant Ecology	1 or 2 modules from Biology and Environmental Science including: Tropical Rainforest Ecology, Methods and Applications in Environmental Sciences, Conservation Management, Earth Observation, Spain Field Course, Iceland Field Course	
4	7	Individual Research Project		
	8			

COMPULSORY MODULES

* Options may vary

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Student Recruitment and Admissions

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