



Programme Specification

Wildlife Ecology and Conservation Science

[Sep][SW][Frenchay][5yrs]

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Section 1: Key Programme Details

Part A: Programme Information

Programme title: Wildlife Ecology and Conservation Science

[Sep][SW][Frenchay][5yrs]

Highest award: MSci Wildlife Ecology and Conservation Science

Interim award: BSc (Hons) Wildlife Ecology and Conservation Science

Interim award: BSc Wildlife Ecology and Conservation Science

Interim award: DipHE Wildlife Ecology and Conservation Science

Interim award: CertHE Wildlife Ecology and Conservation Science

Awarding institution: UWE Bristol

Affiliated institutions: Not applicable

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: Yes

Credit recognition: No

Department responsible for the programme: HAS Dept of Applied Sciences,
Faculty of Health & Applied Sciences

Contributing departments: Not applicable

Professional, statutory or regulatory bodies:

Institution of Environmental Sciences (IES)

Apprenticeship: Not applicable

Mode of delivery: Sandwich

Entry requirements: For the current entry requirements see the UWE public website

For implementation from: 01 September 2018

Programme code: C15C-SEP-SW-FR-C15C

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: Conservation Science is a new, multi-disciplinary science that has evolved in response to the national and global issues confronting biological diversity and the impact on wildlife. The MSci (Hons) Wildlife Ecology and Conservation Science programme is a five year sandwich degree designed to provide graduates with an in-depth understanding of the scientific study of wildlife, the diversity of living organisms and their habitats, and the practical steps that can be taken for effective conservation. It provides an opportunity for students to explore the theory and practice related to wildlife conservation, and to develop both subject-specific and important generic graduate skills, such as practical and analytical skills, work experience, project management, use of technology and communication media.

The programme aims to develop in students an in-depth and advanced understanding of the relationship between wildlife and society, the impacts of human activities on the living world, and an appreciation of the practical steps that can be taken to ameliorate biodiversity decline. It takes a multi-disciplinary approach, considering not only the science underpinning the diversity and ecology of wildlife, their habitats and contemporary scientific approaches to conservation, but also legislative, socio-economic factors and the role of communication. This approach allows students to make an informed evaluation of possible solutions to biodiversity loss and propose conservation action plans.

The final masters-level year provides students with the opportunity to develop advanced research skills by undertaking an original research project, and to critically engage with knowledge and understanding that is at the forefront of their academic

discipline.

The design of the programme enables the student to:

Explore to an advanced level the complexity and diversity of the living world, its evolution and function at an organismal, population, community and ecosystem scale, and its relationship with the physical environment.

Examine how plants and animals interact with each other and their environment.

Develop a systematic understanding of the impact of human activities on the living world and the resulting threat to global biodiversity.

Critically evaluate a range of possible solutions to biodiversity loss, not only from a biological perspective, but also taking into account legislative and socio-economic factors and the role of communication.

Develop subject-specific research and generic skills necessary for further research and employment, such as underpinning knowledge, practical and analytical skills, work experience, research project management, use of technology and communication media.

Educational Aims: The specific aims of the programme are to:

Provide the educational and resource environment which will enable students with a background in science to develop:

An understanding of the living world from a multi-disciplinary and interdisciplinary perspective.

The field, laboratory, investigative, problem-solving, technical and communication skills necessary to undertake independent investigations and analyses of wildlife conservation problems at an advanced level, and the presentational skills necessary to communicate their findings to audiences with a variety of backgrounds.

The skills needed by a literate, numerate, technologically agile student capable of independent learning.

Create a friendly, supportive and contemporary atmosphere that will enable individual students to use the whole learning experience at UWE to create a graduate foundation, on which they can develop their future careers and on-going social and educational development as independent lifelong learners.

Provide a curriculum that is enhanced by the strong relationship between teaching, research, and professional practice and informed by employers.

Programme Learning Outcomes:

On successful completion of this programme graduates will achieve the following learning outcomes.

Knowledge and Understanding

- A1. Structure and function of the natural world
- A2. Processes which shape the natural world
- A3. Relationship between plants, animals, and environment
- A4. Terminology, nomenclature, classification
- A5. Threats to biodiversity, conservation approaches
- A6. Methods for acquiring, analyzing, interpreting data
- A7. Awareness of their contribution to conservation
- A8. Importance of multi-disciplinary and Interdisciplinary approaches
- A9. Importance of subject and generic skills for employment

Intellectual Skills

- B1. Using theories and paradigms
- B2. Analyse, synthesise, summarise information

- B3. Collect evidence, test/develop hypotheses
- B4. Apply knowledge to problems
- B5. Independent learning, self-manager
- B6. Appreciate moral, ethical issues around investigation

Subject/Professional Practice Skills

- C1. Plan, conduct report on investigation
- C2. Collect, record, analyse data
- C3. Deal with complex issues systematically and creatively
- C4. Undertake lab, field investigations
- C5. Demonstrate identification skills
- C6. Field surveys for management plans
- C7. Use of technology for mapping, analyzing data
- C8. Undertake research project
- C9. Reference work and compare to others

Transferable Skills and other attributes

- D1. Make sound decisions in complex and unpredictable situations
- D2. Use a variety of sources of information
- D3. Communicate appropriately using contemporary technologies
- D4. Appreciate issues of accuracy uncertainty
- D5. Prepare, process, interpret data
- D6. Solve numerical problems
- D7. Use internet appropriately for transfer of information
- D8. Respect views of others
- D9. Evaluate individual performance

D10. Active and independent learning

D11. Skills for employment and research

Part B: Programme Structure

Year 1

The student must take 120 credits from the modules in Year 1.

Year 1 Compulsory Modules

The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSK5B-30-1	Field Skills 2020-21	30
USSK5C-30-1	Life on Earth 2020-21	30
USSJFB-30-1	The Earth 2020-21	30
USSK5D-30-1	Wildlife and Society 2020-21	30

Year 2

The student must take 120 credits from the modules in Year 2.

Year 2 Compulsory Modules

The student must take 90 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSK5E-30-2	Conservation in Practice 2021-22	30
USSK5F-30-2	Ecology and Ecosystem Protection 2021-22	30
USSK5G-30-2	Environmental and Field Techniques 2021-22	30

Year 2 Optional Modules

The student must take 30 credits from the modules in Optional Modules.

Module Code	Module Title	Credit
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USSJQD-15-2	Plant Growth and Survival 2021-22	15
USSKN7-15-2	The Microbial World 2021-22	15
USSJQC-15-2	Wildlife Ecology 2021-22	15

Year 3

The student must take 15 credits from the modules in Year 3.

Year 3 Compulsory Modules

The student must take 15 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSK57-15-3	Professional Practice in Applied Sciences 2022-23	15

Year 4

The student must take 105 credits from the modules in Year 4.

Year 4 Compulsory Module Choices

The student must take either USSKBC-30-3 OR USSK5K-30-3

Module Code	Module Title	Credit
USSKBC-30-3	Research Dissertation Project 2023-24	30
USSK5K-30-3	Research Experimental Project 2023-24	30

Year 4 Compulsory Modules

The student must take 30 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSK5J-30-3	Contemporary Conservation Science 2023- 24	30

Year 4 Optional Modules

The student must take 45 credits from the modules in Optional Modules.

Module Code	Module Title	Credit
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USSKN6-15-3	Global Forest Systems 2023-24	15
USSK55-15-3	Marine Ecosystems 2023-24	15
USSK56-15-3	Primate Ecology and Conservation 2023-24	15
USSK58-15-3	Remote Sensing and Geographical Information Systems (GIS) 2023-24	15
USSKCE-15-3	Science Communication 2023-24	15
USSKNB-15-3	Sustainable Food Production 2023-24	15
USSK59-15-3	Tropical Expedition 2023-24	15
USSKNT-15-3	Wildlife Crime and Forensics 2023-24	15
USSK5A-15-3	Wildlife, Film and Media 2023-24	15

Year 5

The student must take 120 credits from the modules in Year 5.

Year 5 Compulsory Modules

The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSJQE-30-M	Current Issues in Applied Sciences 2024-25	30
USSKM6-60-M	Research in Practice 2024-25	60
USSKM5-30-M	Research with Impact 2024-25	30

Part C: Higher Education Achievement Record (HEAR) Synopsis

This programme has been developed in consultation with employers so provides graduates with the knowledge and skills necessary to work effectively in the field of national and international wildlife conservation and ecological research. The programme aims to develop in students an in-depth and advanced understanding of the scientific study of wildlife, the diversity of living organisms and their habitats, and

the practical steps that can be taken for effective conservation. The programme includes work experience, offers a placement year, and provides opportunities for students to develop generic skills necessary for employment, such as practical and analytical skills, project management, use of technology and communication media.

Part D: External Reference Points and Benchmarks

The Framework for Higher Education Qualifications:

The learning outcomes have been developed with reference to the qualification descriptors used in the QAA Framework for Higher Education Qualifications. In particular, the learning outcomes for the modules in the final (Masters) Year are considered consistent with the QAA's descriptor for a higher education qualification at level 7: Master's degree. Graduates of the programme achieving an MSci classification will have developed a systematic understanding and critical awareness of current problems and new insights in key aspects of wildlife ecology and conservation science, much of which is at, or informed by, the forefront of the academic discipline. In addition, graduates will have developed a comprehensive understanding of how established techniques of research and enquiry are used to create and interpret knowledge in their discipline.

Subject Benchmark Statements:

There are currently no official QAA benchmark statements, nor statements from accrediting bodies, for postgraduate studies of biological or environmental sciences.

The first three (BSc) years of the programme map well to the Biosciences benchmark statement and, in particular, to its subject specific and generic learning outcomes, as described in the Programme Specification. The Biosciences benchmark Statement also provides a description of subject standards for degrees in Ecology and Environmental Biology which is a good match to both the subject areas covered and the standards achieved by students on the BSc part of the programme.

In addition, the following key concepts and priorities highlighted in the Biosciences benchmark statement were used to inform programme design:

All students should have at least some appreciation of...studies at a variety of levels from molecules to populations.

This programme focuses primarily on the study of organisms, populations, communities and ecosystems, although fundamental biological concepts that underpin an understanding of wildlife ecology and conservation, such as physiological processes and knowledge of genetics and evolution, are covered (for example at Level 1 in Life on Earth and at Level 2 in Wildlife Ecology).

Students should develop competence in comparing the merits of alternative hypotheses and receive guidance in terms of how to construct experiments or make observations to challenge them.

In all modules, students will be encouraged to explore a range of hypotheses both through their own experimentation, and through the consideration of case studies which both support and refute current paradigms. These skills are developed in the second year when students undertake a group research project in Environmental and Field Techniques. Competence is further developed and assessed to an advanced degree in the Final Year independent Research Project, in which students are expected to devise and undertake original research and to critically compare their findings with existing knowledge and understanding in their chosen subject area.

The biosciences are essentially practical and experimental subjects.

This programme places much emphasis on practical work in the broadest sense, including field and laboratory work, computer-based exercises, group and individual project work, literature-based investigations and utilizing communication technologies. In particular, many students will chose to undertake an independent research project that involves a substantial amount of practical or experimental work, although entirely desk-based studies are relevant in some areas of investigation. In addition, many of the modules contain a substantial amount of practical work, not least through the residential field trips in Field Skills, Environmental and Field

Techniques, Marine Ecosystems, and the Tropical Expedition, as well as half and full-day visits undertaken in other modules.

SEEC credit level descriptors (2010):

SEEC credit level descriptors have been used to establish the level of the programme and its modules, and to inform the learning outcomes and assessment criteria at level 4 (Cert. HE), level 5 (Dip. HE), level 6 (BSc), and level 7 (Masters).

These credit levels descriptors inform the following areas:

The development of subject specific knowledge and understanding, generic cognitive and intellectual skills, key/transferrable skills, and subject specific practical skills.

Teaching, learning and assessment strategies that deliver, ensure and assess the attainment of these levels.

The programme level learning outcomes that are reinforced by the modular learning outcomes, teaching, learning and assessment strategies described in individual module specifications.

UWE 2020 Strategy:

Our programmes are designed to align with the university's strategic goals around teaching and learning. These include a student-centred approach to learning, delivered via a range of learning approaches in fit-for-purpose and future-focused learning environments. By consulting with local and national employers, and through our strategic partnership with Bristol Zoo Society, we ensure that our teaching has real-world relevance. The curriculum is designed to develop the range of subject-specific and generic employability skills that students will need to be effective in the world of work, through embedded work experience, internships and placement years, so that our graduates are ready and able to make a positive contribution to

society in their future careers.

Education for Sustainable Development:

By the nature of this course, sustainable development is a key tenet which runs through every aspect of the teaching and delivery, and all Knowledge and Understanding Learning Outcomes are relevant to Education for Sustainable Development (ESD) as defined by the QAA/HEA ESD guidelines. In particular, outputs from the Master's level research module have the potential to further our understanding of key wildlife conservation issues, and may offer potential solutions to aid conservation practitioners in the field.

The development of the MSci in Wildlife Ecology and Conservation Science has benefited from the recent extensive employer consultation exercise carried out as part of the development of the associated BSc programme, as well as more recent consultation in the subject area for the new MSc in Advanced Wildlife Conservation in Practice programme. Key personnel from the Wildfowl and Wetlands Trust (Slimbridge); Somerset Wildlife Trust; Worldwide fund for Nature (WWF-UK); Bristol Zoo Gardens and Bristol City Council were interviewed. All organisations considered that the consultation was an excellent approach to programme development and were extremely helpful in highlighting key skills for graduate employability, providing ideas for content and offers of work experience opportunities. Common themes emerged from these meetings and so in response to a request for proficiency in Geographical Information systems (GIS), data analysis, scientific writing, use of data bases, field based skills and communication skills, there are skills modules at all levels that address these areas e.g. Field Skills; Environmental and Field Techniques; Conservation in Practice; Contemporary Conservation Science; Research Project, Research with Impact and Research in Practice. All organisations were impressed by the idea of 'built-in' voluntary work and offered work experience opportunities.

In addition, a recent UWE survey of over 80 employers in the South-West identified transferable skills as top of their list of requirements from any graduate job applicant.

These skills included all forms of communication (report writing, oral communication, Powerpoint presentation, data handling, summarising information, lay and scientific, and appropriate communication with peers and seniors) plus all elements of project management (such as planning, working to deadlines, managing multiple tasks, prioritising, working under pressure).

Existing students on the BSc (Hons) Wildlife Ecology and Conservation Science programme have also been consulted. Whilst not all wishing to continue to a Masters level, they liked the flexibility and degree of choice that the MSci structure offers, and recognized that it provides a useful underpinning for those wishing to go into further research on graduating.

Part E: Regulations

Approved to University Regulations and Procedures.