



Module Descriptor

| Title | Environmental Research Project | | | | |
|---------------------|--|------------|----|--|--|
| Session | 2024/25 | Status | | | |
| Code | BIOL10026 | SCQF Level | 10 | | |
| Credit Points | 60 ECTS (European 30 Credit Transfer Scheme) | | | | |
| School | Health and Life Sciences | | | | |
| Module Co-ordinator | M Alexander | | | | |

Summary of Module

This module provides students with a supervised introduction to independent ecological research, analogous with professional research practice. Students will learn how to design, plan and implement a research project, in addition to further developing skills in data analysis, presentation and scientific writing.

Students will refine critical analytical skills through exposure of a range of ecological research topics. The module will expose students to the latest developments and research outputs in the fields of animal behaviour, conservation biology, ecology, ecotoxicology, evolutionary biology, marine/freshwater biology and zoology.

Students will apply skills learned across the breadth of the biology-related provision in the design, conduct, analysis and presentation of a data-based project spanning two semesters, producing a project proposal, a literature review, log book and project report. Students will also present their work to peers at two seminar sessions.

| Module Delivery Method | On-Campus ¹ | Hybrid ² | Online ³ | | Work -Based Learning⁴ |
|---------------------------------|------------------------|------------------------------------|---------------------|------------|---|
| Campuses for Module Delivery | Ayr Dumfries | 🛛 Lanarks 🗌 London 🗌 Paisley | hire | O Learr | nline / Distance hing Other (specify) |

³ Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

⁴ Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

¹ Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

² The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

| Terms for Module Delivery | Term 1 | \boxtimes | Term 2 | Term 3 | |
|--|--------------------|-------------|--------------------|--------------------|--|
| Long-thin Delivery over more than one Term | Term 1 – Term 2 | | Term 2 – Term 3 | Term 3 – Term 1 | |

| Lear | ning Outcomes |
|------|---|
| L1 | Develop and utilise scientific skills appropriate to a particular ecological research discipline to plan and design a research project. |
| L2 | Prepare an independent critical review of literature in order to identify an agreed testable question and develop/refine critical analytical skills by engaging with a range of ethical and biologically-related research models. |
| L3 | Collect, collate and analyse data in a scientific manner using appropriate methodologies and procedures. |
| L4 | Communicate findings and conclusions of project in a written and spoken form. |
| L5 | Act autonomously, or with little guidance, to devise and sustain an independent project to develop new areas of knowledge and skills as necessary. |

| Employability Skill | s and Personal Development Planning (PDP) Skills |
|---|---|
| SCQF Headings | During completion of this module, there will be an opportunity to achieve core skills in: |
| Knowledge and Understanding (K and U) | SCQF 10 To develop detailed knowledge and understanding in a specialised area, informed by or at the forefront of the subject/discipline. Knowledge and understanding of a range of established techniques of enquiry and/or research methodologies. |
| Practice: Applied Knowledge and Understanding | SCQF 10 Execute a defined project of research to derive relevant outcomes. Practice in a range of professional contexts that exhibit uncertain outcomes. Use skills, practices or materials which are specialised, advanced, or at the forefront of a subject or discipline. |
| Generic Cognitive skills | SCQF 10 Critically identify, define, conceptualise, and analyse complex/professional level problems and issues. Critically review and consolidate knowledge, skills and practices. Demonstrate some originality during project implementation. |
| Communication, ICT and Numeracy Skills | SCQF 10 Use a wide range of routine skills in addition to some advanced and specialised skills. Use a range of software to analyse data and produce a professional report, including interpretation. Use and evaluation of a wide range of numerical and graphical data. |
| Autonomy, Accountability and Working with Others | SCQF 10 SCQF Level 10. Exercise autonomy and initiative during the project work. Exhibit awareness of responsibilities in a multi-user environment e.g. a laboratory. Work effectively with project supervisor. Demonstrate an |

| awareness of current ethical issues and adopt a professional code of |
|--|
| conduct. |

| Prerequisites | Module Code | Module Title | | | |
|---------------|--|--------------|--|--|--|
| | Other Only available for students on programme codes | | | | |
| | BSc/ABZ (Applied Bioscience and Zoology), | | | | |
| | ERASMUS | | | | |
| Co-requisites | Module Code | Module Title | | | |

Learning and Teaching

In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.

This module will require the student to undertake an investigation of a research-based topic with an environmental focus. A review of the literature will be prepared and a practical investigation carried out to generate data for analysis. In some cases a non-laboratory based topic may be investigated. A final report will be prepared to present the findings and conclusions of the research project.

| Learning Activities | Student Learning |
|--|--|
| During completion of this module, the learning activities undertaken | Hours |
| to achieve the module learning outcomes are stated below: | (Note: Learning hours include both contact hours and hours spent on other learning activities) |
| Laboratory / Practical Demonstration / Workshop | 300 |
| Lecture / Core Content Delivery | 40 |
| Independent Study | 250 |
| Personal Development Plan | 10 |
| n/a | |
| n/a | |
| TOTAL | 600 |

Indicative Resources

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Access to primary literature is essential.

Specialised reference material, books and online databases.

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the <u>Student Attendance and Engagement Procedure</u>, Students are academically engaged if they are regularly attending and participating in timetabled on-

campus and online teaching sessions, asynchronous online learning activities, courserelated learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

The university is committed to providing a supportive learning environment that actively facilitates student success. In this module, there is a high degree of student-led flexibility. You are academically engaged if you are regularly engaged with scheduled live sessions oncampus and online, including engaging with online learning activities in your own time, course-related learning resources, and with timely completion and submission of assessments.

Whilst we understand that there may be times when conflicting priorities make participation challenging, for you to gain the most from this module it is recommended that you participate in all scheduled live classes and complete your self-directed learning activities in a timely manner.

It may be difficult to pass the assessment associated with this module if you are not regularly engaging with the module work and live classes. We may reach out to check how things are going and offer support if we observe that you have not been attending sessions or completing online activities.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: <u>UWS Equality, Diversity and Human Rights Code.</u>

In line with current legislation (Equality Act, 2010) and the UWS Equality, Diversity, and Human Rights Code, our modules are accessible and inclusive, with reasonable adjustment for different needs where appropriate. Module materials comply with University guidance on inclusive learning and teaching, and specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations. Where modules require practical and/or laboratory based learning or assessment required to meet accrediting body requirements the University will make reasonable adjustment such as adjustable height benches or assistance of a 'buddy' or helper.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

| Supplemental Inforn | nation |
|---------------------|--------|
|---------------------|--------|

| Divisional Programme Board | Biological Sciences Health |
|-------------------------------------|--|
| Overall Assessment Results | 🗌 Pass / Fail 🔀 Graded |
| Module Eligible for Compensation | Yes No If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details. |
| School Assessment Board | Biology |
| Moderator | K Sloman |
| External Examiner | J Spicer |
| Accreditation Details | |

| Module Appears in CPD catalogue | Yes 🛛 No |
|---------------------------------|----------|
| Changes / Version Number | |

Assessment (also refer to Assessment Outcomes Grids below)

Assessment 1

Project proposal (10%), Literature review (20%)

Assessment 2

Final project report (40%), Project presentation (10%)

Assessment 3

Project conduct and PDP (20%)

(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed.

(ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

| Component 1 | | | | | | | | |
|---|-----|-----|-----|-----|-----|---|--------------------------------|--|
| Assessment Type | L01 | LO2 | LO3 | LO4 | LO5 | Weighting of Assessment Element (%) | Timetabled Contact Hours | |
| Project proposal (10%), Literature review (20%) | | | | | | 30 | 0 | |

| Component 2 | | | | | | | |
|--|-----|-----|-----|-----|-----|---|--------------------------------|
| Assessment Type | LO1 | LO2 | LO3 | LO4 | LO5 | Weighting of Assessment Element (%) | Timetabled Contact Hours |
| Final project report (40%), Project presentation (10%) | | | | | | 50 | 4 |

| Component 3 | | | | | | | |
|-----------------------------------|-----|-----|-----|-----|------|---|--------------------------------|
| Assessment Type | LO1 | LO2 | LO3 | LO4 | LO5 | Weighting of Assessment Element (%) | Timetabled Contact Hours |
| Project conduct and PDP (20%) | | | | | | 20 | 0 |
| Combined total for all components | | | | | 100% | 4 hours | |

Change Control

| What | When | Who |
|------|------|-----|
| | | |