Module Specification

Field Skills

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Contents

Part 1: Information

Module title: Field Skills

Module code: USSK5B-30-1

Level: Level 4

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: This is a skills based module and aims to support and enhance the development of both subject-based and generic key skills.

Outline syllabus: Specifically this module will introduce the following:

Field skills:

Principles of fieldwork, sampling methodologies and monitoring. Investigation of a range of environmental issues in a local and regional context. Activities may include: field monitoring of air, soil or water quality; investigating the impacts of human activities (for example, industry, tourism) on urban and rural environments through site visits and surveys; investigations into the factors that affect the distribution of living organisms.

Study skills:

Transition to university, expectations, requirements and support. Introduction to study skills and generic graduate, skills. Proficiency and careers within the environmental sector. The evaluation of skills and planning personal development. Introduction to independent learning and being a self manager. Activities may include: academic reading; literature and information searching; scientific writing; referencing and plagiarism; use of appropriate software; presentation skills; time management; understanding and using feedback; formative assessment and feedback from staff and peers; revision techniques and exam preparation; self evaluation and reflection; planning ahead.

Analytical skills:

Modelling scientific systems: Scientific equations and formulae. Linear relationships and regression. Exponential and logarithmic functions. Equations of growth and decay. Probability and frequency. Use of normal distribution, Z-scores, confidence intervals. Use of appropriate software to display scientific information: formatting, graphs, use of formulae and functions, absolute and relative addressing. Descriptive statistics.

Data analysis: Introduction to hypothesis testing. Testing of hypotheses and making decisions, for example the use of t-tests and Chi-squared test. Appreciation of variability in scientific data and experimental uncertainty. Examining linear relationships and rates of change. Examining Binomial and Poisson distributions. Recording, analysing and interpreting scientific data. Using and becoming proficient with IT software such as Excel, Minitab, Word and Powerpoint.

Part 3: Teaching and learning methods

Teaching and learning methods: This is a module about developing skills and so a variety of teaching and learning approaches will be employed that includes field practicals, online tutorials and computer workshops. A large part of this module covers the development of problem solving numeric skills and data analysis skills. Technology enhanced learning is therefore essential to support the teaching of these skills. The module will be delivered using a mixture of whole group (online lectorials) and small online tutorial group sessions. Students will be allocated to a Study Skills Tutor group where a member of staff will facilitate personal, group and peer assisted learning of key skills. This will encompass the university wide Personal Tutor scheme. The module includes five field practicals where emphasis will be placed on understanding the theory behind fieldwork and developing practical hands on skills in field techniques. Teamworking skills will be promoted through group work. Support material such as videos, relevant texts, internet and electronic resources, will be available for use both in formal and informal sessions.

Support for student learning in Analytical skills will be given through weekly lectorials/tutorials which will be integrated with the online self-assessment tests and online video support to ensure focussed help can be given to those students who need help in the particular areas. This introduces students to the concept of using technology to enhance learning (TEL). Students will develop IT and data analysis skills through computer-based workshops. This will be re-enforced by the need of students to demonstrate their proficiency at using IT software for their portfolio's. Resources for Analytical Skills also include direct tutorial material, and references to published material, software, internet and intranet resources. Where possible, the statistical topics are presented and tested in the context of environmental issues.

Student learning will be supported through the University's E-Learning Environment, Blackboard.

Scheduled learning includes lectorials, tutorials, practical computer classes and workshops; fieldwork; external visits.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion.

The contact hours (66) are distributed as follows:

17 lectorials - 2 hours/lectorial: 34 hours

17 workshops - 1 hours/lecture: 17 hours

5 field practicals - 3 hours/day: 15 hours

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Undertake and understand the principles of a range of field survey techniques and record scientific data in the field

MO2 Describe, for the field studies considered, the range of factors which affect the environment

MO3 Present, analyse and interpret field data using appropriate mathematical, statistical and communication skills

MO4 Use appropriate software to display and analyse scientific information, draw graphs, use formulae, functions and appropriate formatting

MO5 Understand the need for developing key graduate skills in addition to subject based proficiency

MO6 Use resources that will support their research, problem solving and study skills throughout their undergraduate course

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 234 hours

Face-to-face learning = 66 hours

Total = 300

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ussk5b-30-1.html

Part 4: Assessment

Assessment strategy: The Assessment Strategy has been designed to support and enhance the development of both subject-based and generic key skills, whilst ensuring that the modules Learning Outcomes are attained. The focus is on assessments that link directly to employability skills as described below.

There are two coursework assessment tasks. The first (Assessment Task 1) is a Field Report which is based on the field practicals. This report requires the detailed recording of a range of environmental variables whilst in the field, followed by analysis and interpretation of these data. This report includes critical review of the methodology used and discussion on how the environment is affected by natural and anthropogenic factors. The recording and analysis of field data is a vital skill for environmental students. Furthermore, students need to know not just how to undertake a particular field survey but to be aware of the limitations and appropriateness of each test. Consequently this assessment addresses both these points and so can be described as an assessment for learning and employability. To further enhance learning, by putting the material into context, the recorded field values are further explored in the data analysis workshops. The second coursework task (Assessment task 2) is a portfolio. Students will be given instruction on the content of this portfolio which will contain examples of both study skills and subject skills such as: evidence of referencing; examples of poster presentation; evidence of competency with IT software; statistical analysis of field data; interpretation and discussion of field data; a skills evaluation; reflection on coursework feedback; reflection and action plan. When possible the portfolio will be generated online using appropriate technology and systems supported by UWE.

Word Count not appropriate for this module.

Assessment Task 3 is a 24 hour online exam. The exam will be equivalent to 2 hours duration to allow students to undertake a suitable range of activities such as: undertake calculations; process and manipulate data; assess data in graphs and

other forms; discuss various field techniques; analyse example field data. This will test a range of the learning outcomes. The exam format is utilised as it replicates the world of work where samples and data need to be analysed and interpreted correctly within a short deadline.

Formative feedback is available to students throughout the module through group discussions particularly in tutor group sessions. Online group review of field posters also provides formative feedback from peers. Students are provided with formative feed-forward for their exam through a revision and exam preparation session prior to the exam and through support materials supplied through Blackboard.

Assessment tasks:

Report (First Sit)
Description: Field report
Weighting: 30 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Portfolio (First Sit)
Description: Portfolio
Weighting: 30 %
Final assessment: No
Group work: No
Learning outcomes tested: MO4, MO5, MO6

Examination (Online) (First Sit)
Description: Online examination (24 hours)
Weighting: 40 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO3, MO4

Report (Resit)

Description: Field report

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Portfolio (Resit)

Description: Portfolio

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO4, MO5, MO6

Examination (Online) (Resit)

Description: Online examination (24 hours)

Weighting: 40 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Wildlife Ecology and Conservation Science [Frenchay] MSci 2023-24

Environmental Science [Frenchay] MSci 2023-24

Wildlife Ecology and Conservation Science [Zoo] BSc (Hons) 2023-24

Environmental Science {Foundation} [Frenchay] MSci 2022-23

Environmental Science {Foundation} [Frenchay] BSc (Hons) 2022-23

Wildlife Ecology and Conservation Science {Foundation} [Frenchay] MSci 2022-23

Wildlife Ecology and Conservation Science {Foundation} [Zoo] BSc (Hons) 2022-23