Module Specification

Skills for Biosciences

Version: 2025-26, v4.0, Approved

Contents

Part 1: Information

Module title: Skills for Biosciences

Module code: USSKA6-30-1

Level: Level 4

For implementation from: 2025-26

UWE credit rating: 30

ECTS credit rating: 15

College: College of Health, Science & Society

School: CHSS School 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: As biological scientists you need to be equipped with skills and knowledge that allow you to work in a safe, competent and confident manner.

Features: Not applicable

Educational aims: This module will introduce you to analytical techniques, data handling and statistical methods used within the research process. In this module you will be introduced to a range of practical and transferable skills including

scientific writing, teamwork and research practices. Aspects of personal development will be discussed and employment/career options assessed.

Outline syllabus: You will learn:

An introduction to independent learning with reference to academic reading, searching of the literature, scientific writing, referencing and plagiarism.

The principles and application of different analytical techniques used to carry out work in a biological laboratory.

How to determine which statistical analysis is needed to interpret data and the use of statistical methods to analyse and describe experimental data sets.

An introduction to health and safety in the laboratory and performing basic laboratory methods.

Reflection upon your personal development and acquisition of graduate skills including teamwork, numeracy and academic integrity.

Part 3: Teaching and learning methods

Teaching and learning methods: The module is delivered as a blend of interactive lectures, online computer tutorials and linked practical classes, informing a mini-project.

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

MO1 Develop academic and technological skills needed for independent study, drawing from appropriate sources.

MO2 Demonstrate the ability to apply and interpret statistical methods to a range of scientific datasets.

MO3 Understand how experimental techniques are performed in the laboratory safely to answer a research question.

MO4 Understand the concepts of accuracy and precision, SI units, molar and % solutions, dilutions and pH.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

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/usska6-30-1.html

Part 4: Assessment

Assessment strategy: The assessment strategy for this module has been designed to support and enhance the development of both subject-based and generic key skills.

Assessment 1: Written assignment (500 words)
The literature review provides the opportunity for the student to complete an overview of their selected topic by reviewing and synthesising information from published research. This is combined with a critical reflection where students reflect upon feedback received from their personal science tutor during the writing process and how this was incorporated into their work. Students will be supported by their personal science tutors who will provide guidance on topic selection and writing style, giving formative feedback on one draft; 10% of the mark will be for a written reflection on the feedback given.

Assessment 2: Portfolio
The laboratory assignment provides students with experience in presenting, interpreting and discussing data from the practical sessions in the form of a poster.

This assignment represents a scaffold which will be developed further at levels 5 and 6. Students undertake a laboratory project comprising two parts: a series of chemistry and mathematics and statistics tasks completed in laboratory booklets that will support the practical work (25% of total mark) and the submission of a poster summarising the work performed in the laboratory project and presenting the data gathered (75% of total mark). Opportunities for formative assessment and feedback are available during laboratory practicals and through scheduled revision sessions.

Assessment tasks:

Written Assignment (First Sit)
Description: 500 word literature review.
Weighting: 30 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1

Portfolio (First Sit)
Description: Practical portfolio
Weighting: 70 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO2, MO3, MO4

Written Assignment (Resit)
Description: 500 word literature review.
Weighting: 30 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1

Portfolio (Resit)
Description: Practical portfolio
Weighting: 70 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Biological Sciences {Foundation} [Frenchay] BSc (Hons) 2024-25

Biological Sciences {Foundation} [Frenchay] - WITHDRAWN MSci 2024-25

Biological Sciences [Frenchay] BSc (Hons) 2025-26