



Module Specification

Biomedical Skills

Version: 2023-24, v2.0, 16 Jun 2023

Contents

Module Specification	1
Part 1: Information	2
Part 2: Description	2
Part 3: Teaching and learning methods	3
Part 4: Assessment.....	5
Part 5: Contributes towards	7

Part 1: Information

Module title: Biomedical Skills

Module code: USSKA5-30-1

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 module about developing skills and so a variety of teaching and learning approaches will be employed that include lectures, tutorials, laboratory work and computer practical tutorials.

Outline syllabus: Part I (Problem solving skills): Covers the development of problem solving numeric and data analysis skills.

Part II (Laboratory skills)

Part III (Study skills)

Part IV (Organic chemistry, Pharmacology): Fundamental organic chemistry to support basic/pure chemistry/underpin to prepare for Level 2. Basic principles of organic chemistry and pharmacology.

Part 3: Teaching and learning methods

Teaching and learning methods: Part I (Problem solving skills):

The module will be delivered using a mixture of whole group (lectorials) and small tutorial group sessions. Support for student learning in Part I will be given through weekly lectorials/tutorials which will be integrated with the online selfassessment 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). Resources for Part I also include direct tutorial material, and references to published material, software, internet and intranet resources. The development of numeric and data analysis skills will be further supported through timetabled PAL (Peer Assisted Learning) sessions, in which second year students (who are on the same degree course as those first year students taking this module) provide guidance.

Part II (Laboratory skills):

Will be taught through a combination of lectures, which will include short audio/visual presentations, tutorials, which will require preparation and follow-up work to be done by the student and laboratory practicals where students will get valuable hands on experience of analytical methods.

Part III (Study skills):

Will be taught through a combination of lectures/tutorials, to develop the students' skills in communicating scientific information, and computer-based workshops to develop IT and data analysis. These areas of development will be further supported by UWE's dedicated online study skills resources. Student learning will be further supported through the University's E-Learning Environment, Blackboard.

Part IV (Organic chemistry, Pharmacology):

This will comprise a lecture and a workshop session. The pharmacology content to introduce routes of administration, and approaches for drug discovery.

Independent learning will take the following forms with an approximate indication of time required for each:

Essential reading to support acquisition of knowledge and completion of problem solving skills exercises relating to lectures and practical classes – 130 hours

Preparation and submission of coursework 1 – 12 hours

Preparation and submission of coursework 2 – 12 hours

Revision and preparation for exams, including support tutorials – 70 hours

Scheduled learning includes lectures, tutorials, practical computer classes and laboratory workshops.

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

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

MO1 Perform basic scientific calculations relevant to healthcare and the biomedical sciences

MO2 Use statistical methods to describe datasets using a variety of techniques

MO3 Estimate the uncertainties in the results of scientific measurements

MO4 Present, analyse and interpret laboratory and field data using appropriate mathematical, statistical and communication skills

MO5 Apply a basic knowledge of nuclear and atomic physics to describe the basis of instruments, equipment and procedures in nuclear medicine

MO6 Describe the functions of the components of basic analytical instruments and operate analytical instruments at a basic level

MO7 Recognise and describe a range of routine analytical techniques available for the chemical analysis of biological molecules

MO8 Understand the kinetics of bacterial growth and death; aseptic techniques

MO9 Describe strategies for destruction of microbes (disinfection, sterilisation)

MO10 Understand key concepts in organic chemistry and pharmacology

MO11 Record experimental data in an appropriate manner, use it for the calculation of concentrations and other parameters of simple test samples and in the calibration of instruments

MO12 Understand the need for developing key graduate skills in addition to subject based proficiency

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 225 hours

Face-to-face learning = 75 hours

Total = 300

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/usska5-30-1.html) via the following link <https://uwe.rl.talis.com/modules/usska5-30-1.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 coursework comprises two elements.

The first is the Integrated assignment which will provide an opportunity for students to demonstrate their ability to apply the principles of the course to unseen problems and evidence their skills in approaching it appropriately.

The second element is a portfolio. Students will be given instruction on the content of this portfolio which will contain examples of both study skills and laboratory skills such as: laboratory workbook; evidence of referencing; examples of poster presentation; a skills evaluation; reflection and action plan.

Formative feedback is available to students throughout the module through group discussions particularly in tutor group sessions. 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:

Online Assignment (First Sit)

Description: Online tests

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO10, MO2, MO3, MO4, MO5, MO7, MO8, MO9

Portfolio (First Sit)

Description: Portfolio

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO11, MO12, MO2, MO3, MO4, MO5, MO6, MO7

Online Assignment (Resit)

Description: Online tests

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO10, MO2, MO3, MO4, MO5, MO7, MO8, MO9

Portfolio (Resit)

Description: Portfolio

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO11, MO12, MO2, MO3, MO4, MO6, MO7

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Applied Biomedical Science [Frenchay] BSc (Hons) 2023-24

Biomedical Science [Frenchay] BSc (Hons) 2023-24

Biomedical Science [Frenchay] MSci 2023-24

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

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

Biomedical Science [Frenchay] BSc (Hons) 2023-24

Biomedical Science [Frenchay] MSci 2023-24

Biomedical Science [Frenchay] MSci 2022-23

Biomedical Science [Frenchay] BSc (Hons) 2022-23