

## **Module Descriptor**

| Title               | Bio-Professional Practice |  |           |  |
|---------------------|---------------------------|--|-----------|--|
| Session             | 2025/26                   | Status                                       | Published |  |
| Code                | BIOL09011                 | SCQF Level                                   | 9         |  |
| Credit Points       | 20                        | ECTS (European<br>Credit Transfer<br>Scheme) | 10        |  |
| School              | Health and Life Sciences  |  |           |  |
| Module Co-ordinator | Anne Crilly               |  |           |  |

# **Summary of Module**

Development of employability competences is seen as an essential component in the education of today's graduates. This module is intended as an alternative to the Work Based Learning module for those students for whom a work placement cannot be accommodated.

The module will focus on the development of practical skills in terms of an investigation in a specific problem relevant to the student's programme of study.

Competences will be delivered through a series of tutorials and case studies on a diverse range of topics including ethics, quality assurance practices, health and safety, and experimental design.

Students will also develop a range of practical and /or intellectual skills through the investigation of an ethical topic appropriate to their chosen programme of study.

The assessments of this module will take the form of a supported development of skills culminating in an integrated, comprehensive report on a practical-based investigation.

This module will work to develop a number of the key 'I am UWS' Graduate Attributes to make those who complete this module:

Universal

Critical thinker

Ethically minded

Research minded

Work ready

Problem solver

Effective communicator

Ambitious and Successful

Autonomous

Resilient

Driven

| Module Delivery<br>Method                  | On-Campus¹<br>⊠    |    | ŀ | Hybrid <sup>2</sup> Online                                     |      | e³ Work -Based<br>Learning⁴ |      |          |
|--|--------------------|----|---|--|------|-----------------------------|------|----------|
| Campuses for<br>Module Delivery            | Ayr Dumfri         | es |   | <ul><li>∠ Lanarks</li><li>∠ London</li><li>∠ Paisley</li></ul> | hire | Learr                       | ning | Distance |
| Terms for Module<br>Delivery               | Term 1             |    | ] | Term 2   |      | Term                        | 13   |          |
| Long-thin Delivery over more than one Term | Term 1 –<br>Term 2 |    |   | Term 2 –<br>Term 3   |      | Term<br>Term                |      |          |

| Lear | Learning Outcomes   |  |  |  |  |
|------|---|--|--|--|--|
| L1   | Apply quality assurances practices and principles, good experimental / survey design principles and health and safety (risk assessment) considerations. |  |  |  |  |
| L2   | Discuss ethical considerations appropriate to the field of study.   |  |  |  |  |
| L3   | Collect, analyse and present data in an appropriately professional manner.  |  |  |  |  |
| L4   | Report comprehensively the topic under investigation to a professional standard.  |  |  |  |  |
| L5   |   |  |  |  |  |

| Employability Skills 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<br>Understanding (K<br>and U)                         | SCQF 9 Students will have the opportunity to extend and refine their subject specific knowledge in particular contexts.   |  |  |  |
| Practice: Applied<br>Knowledge and<br>Understanding                 | SCQF 9 Students will have the opportunity to refine practical competencies towards a professional standard, taking into account bias and inherent variability to establish reliable outcomes that may be used as the basis for making informed comparisons and their application in study of life science problems. |  |  |  |
| Generic<br>Cognitive skills   | SCQF 9 Students will produce a final report and presentation that will refine report writing and analytical skills.   |  |  |  |

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> 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.

<sup>&</sup>lt;sup>4</sup> 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

| Communication,<br>ICT and<br>Numeracy Skills     | Students will have the opportunity to enhance their communication, ICT and data handling skills through production of written reports, and presentations.  |
|--|--|
| Autonomy, Accountability and Working with Others | Students will be responsible for the production of reports based on practical work undertaken towards a professional standard, taking into account appropriate controls and standards, in a timely manner and organization of the necessary work, often undertaken in collaboration with team members. |

| Prerequisites | Module Code | Module Title |
|---------------|-------------|--------------|
|               | Other       |              |
| 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.

During lectures students will be introduced to the fundamentals of quality assurance, experimental design, ethics and health and safety. These will be reinforced by means of a variety of practical exercises delivered in tutorials and through VLE-based exercises.

Students will have the opportunity to refine and acquire new competencies, through undertaking practical work in a topic related to their programme of study, reflecting a professional situation similar to work-based learning.

| Learning Activities  During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below: | Student Learning Hours (Note: Learning hours include both contact hours and hours spent on other learning activities) |
|---|---|
| Lecture / Core Content Delivery   | 28  |
| Tutorial / Synchronous Support Activity   | 2   |
| Laboratory / Practical Demonstration / Workshop   | 6   |
| Asynchronous Class Activity   | 12  |
| Independent Study   | 152   |
| n/a   |   |
| TOTAL   | 200   |

### Indicative Resources

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

Witchel, H. (2020) Writing for Biomedical Sciences Students (Macmillan Study Skills). First edition. Red Globe Press.

Case Studies in Biomedical Research Ethics (2004) Murphy, Timothy. ISBN 0-262-63286-1

Practical Skills in Biology, 7th Edition. Weyers, J. (2021) Pearson.

Research and publication ethics: an introduction (2024) Chowdhary, N. Routledge.

(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 oncampus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

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

On campus attendance at all timetabled sessions (lectures / workshops, tutorials and practical classes), completion of all asynchronous activities, and submission of assessments to meet the learning outcomes of the module.

## **Equality and Diversity**

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

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 Information**

| 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                        | Richard Thacker   |
| External Examiner                | A Tsaousis  |
| Accreditation Details            | IBMS/ RSB   |
| Module Appears in CPD catalogue  | ☐ Yes ⊠ No  |
| Changes / Version Number         | 2.13  |

#### Assessment (also refer to Assessment Outcomes Grids below) Assessment 1 Class Test (unseen, closed book) based on the topic of Health & Safety, incorporating the analysis of case study examples. **Assessment 2** Essay on the topic of ethics. Assessment 3 Laboratory report involving the completion of multiple practical protocols, analysis and accurate presentation of data collected, with comparisons to given standards. Development of scientific writing skills and exploration of the scientific literature will be assessed. The laboratory report will be supported through provision of materials online, support in class through laboratory sessions and tutorials. (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** LO1 LO2 LO3 LO4 LO<sub>5</sub> Weighting of Timetabled Contact Assessment Element (%) Hours 25 Class test (written) $\boxtimes$ $\boxtimes$ 2 Component 2 **Assessment Type** LO1 LO2 LO3 LO4 LO<sub>5</sub> Weighting of Timetabled Assessment Contact Element (%) Hours X $\boxtimes$ $\boxtimes$ 25 0 Essay Component 3 L01 LO<sub>2</sub> LO3 LO<sub>5</sub> Timetabled **Assessment Type** LO4 Weighting of Assessment Contact Hours Element (%) $\boxtimes$ $\boxtimes$ $\boxtimes$ $\boxtimes$ Report of practical/ 50 field/ clinical work Combined total for all components 100% 2 hours **Change Control** What When Who Module Coordinator Updated. Campus of A Crilly delivery updated. Student Learning Hours updated. Accreditation statement updated.

| For AY21-22 SAB (Subject Panel) name updated. |           |           |
|---|-----------|-----------|
| Indicative Resources                          | July 2025 | F Menzies |
|   |           |           |
|   |           |           |
|   |           |           |