Programme Specification for Foundation Year Biological Sciences

This document applies to Academic Year 2024/25 onwards

Table 1 programme specification for Foundation Year Biological Sciences

1.	Awarding institution/body	University of Worcester
2.	Teaching institution	University of Worcester
3.	Programme accredited by	N/A
4.	Final award or awards	BSc Biological Sciences (Zoology) BSc Biological Sciences (Biochemistry) BSc Biological Sciences (Biology) BSc (Hons) Biomedical Science BSc (Hons) Forensic and Applied Biology BSc (Hons) Medical Sciences
5.	Programme title	Biological Sciences Foundation Year
6.	Pathways available	N/A
7.	Mode and/or site of delivery	Standard taught programme
8.	Mode of attendance and duration	Full time. 120 credits (Level 3)
9.	UCAS Codes	Biological Sciences (Biochemistry) (with Foundation Year) **C750** Biological Sciences (Biology) (with Foundation Year) **C150** Biological Sciences (Zoology) (with Foundation Year) **D350** Biomedical Science (with Foundation Year) **B955** Forensic & Applied Biology (with Foundation Year) **FC50** Medical Sciences (with Foundation Year) **B191**
10.	Subject Benchmark statement and/or professional body statement	SEEC Credit Level Descriptors for Higher Education 2016 QAA Subject Benchmark Statement: Biosciences (March 2023)
11.	Date of Programme Specification preparation/ revision	March 2019 June 2019 references to BSc Environmental Science removed (course closed) August 2019 AQU amendments to Section 19 August 2020 update to Benchmark Statements, AQU amendments to Section 19 September 2020 error amended Section 19 January 2021 removal of BSc Pharmacology March 2021 addition of BSc Medical Sciences November 2021 – AQU and School updates July 2022 – Addition of BSc Environmental Management and Sustainability. Removal of BSc Human Nutrition August 2022 – AQU amendments APPG January 2022 – course titles changed for 2023/24 August 2023 – annual updates and QAA update

12. Educational aims of the programme

The Foundation Year aims to develop students' knowledge and understanding of fundamental facts, concepts and principles in the areas of biological and environmental sciences. On successful completion of the course students will have a range of skills to ensure they are well prepared to progress onto Level 4 of their chosen science degree at University of Worcester.

The course is aimed at students from non-traditional academic backgrounds or those who have not fully achieved the entry requirements for Level 4 in Biological Sciences at University of Worcester.

The main educational aims of the Foundation Year are:

- To provide students from a range of educational backgrounds with the underpinning knowledge, understanding, skills and confidence to progress further in their chosen studies of biological or environmental sciences.

- To enable students to develop the practical skills that they will need to succeed in their chosen science degree.

- To enable students to develop a variety of transferable skills that will underpin students' academic success in future studies and maximize their employability upon completion of their chosen degree.

13. Intended learning outcomes and learning, teaching and assessment methods

Table 2 knowledge and understanding outcomes for module code/s

Knowledge and Understanding		

LO no.	On successful completion of the Foundation Year, students will be able to:	Module Code/s
1.	Explain the key concepts in Science needed to underpin the study of their chosen degree at Level four	BIOS 0001 BIOS 0002
2.	Use the fundamental mathematical and IT techniques needed for study of life sciences at Level 4	BIOS 0003
3	Explain the principles of the scientific method and critical enquiry	BIOS 0003

Table 3 cognitive and intellectual skills outcomes for module code/s

Cognitive and intellectual skills		

4	Interpret quantitative and qualitative information and apply subject specific knowledge to tackle problems in a range of areas of science, computing and mathematics	BIOS 0003 BIOS 0004

5	Search for and understand the relevance, accuracy and limitations of primary and secondary sources of information	BIOS 0002 BIOS 0003
6	Collect, collate, analyse and present data to solve problems and communicate findings	BIOS 0004

Table 4 performance and practice skills outcomes for module code/s

Performance and Practice		
7	Use a variety of information technologies, databases and analytical tools competently and understand the relevance of their applications to science and mathematics	BIOS 0004
8	Accurately cite and reference information sources	BIOS 0001 BIOS 0002
9	Carry out practical work accurately, precisely and in accordance with health and safety procedures	BIOS 0002 BIOS 0004

Table 5 personal and enabling skills outcomes for module code/s

Personal and Enabling Skills		
10	Work both independently and with others	BIOS 0001 BIOS 0004
11	Express ideas clearly and unambiguously orally and in writing	BIOS 0001 BIOS 0002
12	Recognise own strengths and weaknesses, reflect on performance and progress and respond positively to feedback, taking responsibility for own learning	BIOS 0003

Learning, teaching and assessment

Teaching

The Foundation Year aims to provide a supportive, student-centred learning environment that acknowledges and responds to the diversity of student backgrounds and experiences. The structure of the course enables students to develop their level of educational attainment in the sciences and move towards increasing independence in their studies to successfully engage with Levels 4 and above, in line with the Framework for Higher Education Qualifications (FHEQ) and University policies for assessment and curriculum design. All modules offer students structured tutor support, and each module is designed to lead the student to increasing independence in their learning.

Students will participate in a wide range of learning experiences. Teaching, assessment and private study are interlinked in that they are all aspects of each student's personal and academic development.

A list of the range of learning experiences that may be encountered on the course are given below:

Lectures, practical laboratory sessions, practical demonstrations, seminars, self-instructional workbooks, workshops, tutorials, fieldwork and visits, directed reading, independent study, group projects, web conferencing, self-directed study, reflective accounts of own work, group work, self-study packages, blended learning with the Blackboard VLE, class discussions, computer simulations, case studies, independent research, role-play, visiting speakers, reflective learning.

The course employs a variety of assessment methods, for more details please see section 14 of this programme specification.

Contact time

In a typical week students will have around 12 hours of face-to-face teaching plus designated and optional tutorials.
Class contact time will be structured around:

- Lectures and seminars
- Workshops
- Group work (problem and enquiry-based learning)
- Practical sessions
- Field trips

Independent self-study

In addition to the contact time, students are expected to undertake around 24 hours per week directed independent study, plus assessment preparation at the appropriate times. Typically, this will involve reading, watching selected videos, working through example problems, preparing assessments.

Independent learning is supported by a range of excellent learning facilities, including the Hive and library resources, the virtual learning environment, and extensive electronic learning resources.

Teaching staff

Students will be taught by a teaching team whose expertise and knowledge are closely matched to the content of the modules on the course. The team includes a range of expert lecturers (details of individuals can be found in the course handbook and on the School webpages).

Teaching is informed by research and consultancy, and the majority of lecturers on our science courses have or are working towards a higher education teaching qualification and/or are Fellows of the Higher Education Academy.

Assessment

The Foundation Year provides opportunities to test understanding and learning informally through the completion of practise or 'formative' assignments. Each module has one or more formal or 'summative' assessment which is graded and counts towards the overall module grade.

Assessment methods include exams, in-class tests, written assessments, practical reports, group and individual reports, and oral presentations.

14. Assessment strategy

Students have opportunities to develop the appropriate skills necessary for the particular assessment type used before summative assessment takes place. Extensive feedback is given on assessments and students are supported through the Personal Academic Tutoring Programme for the course, to reflect and act on this feedback in order to support their academic development.

Formative assessment is a key part of the learning process and, in the Foundation Year, it takes a variety of forms including: formative laboratory reports, formative multiple-choice examinations, formative practise for presentations, as well as more informal feedback on essays and reports.

As far as is possible the summative assessments have been spread throughout the modules. However, the skills and depth of understanding to be assessed take time to develop and consequently summative assessment deadlines do not generally occur in the early part of the module. The range of assessment tasks used and their weightings, together with a calendar of submission dates, is shown in the relevant Course Handbook.

All module guides contain detailed assignment briefs and grading criteria which are normally specific for that particular assignment. Study skills are incorporated into some modules and include sessions on how to make good use of this information.

Grid showing assessment methods and weightings:

Table 6 showing assessments and methods weighting:

Module	Practical Report / file / handbook	Written exam / test	Engage with PDP	Essay	Group Report	Group presentation	Multi Choice tests	Group Report Plan	Written Assessment
BIOS 0001		50%							50%
BIOS 0002			P/F				50%		50%
BIOS 0003				25%		30%	45%		
BIOS 0004	50%				50%				

A grid showing assessment methods and weightings mapped to modules at each level, together with an assessment calendar of submission dates is also included in the relevant course handbooks.

15.   Programme structures and requirements

Table 4 award map for Foundation Year for Biological Sciences

Award Map for Foundation Year for Biological Sciences

Level 3 (Sub-degree)			
Module Code	**Module Title**	**Credits** (Number)	**Status:** Mandatory
BIOS 0001	**The Chemistry of Life**	30	M
BIOS 0002	**Earth, Life and Diversity**	30	M
BIOS 0003	**Essential Skills for Scientists**	30	M
BIOS 0004	**Science in Practice**	30	M

All modules are mandatory

16.   QAA and professional academic standards and quality
The Foundation Year is located at level 3 of the National Framework for England, Wales and Northern Ireland, and has been developed with reference to the QAA Subject Benchmark Statement Biosciences October 2019, QAA Subject Benchmark Statement Earth Sciences, Environmental Sciences & Environmental Studies October 2019 and SEEC Credit Level Descriptors for Higher Education (www.seec.org.uk) and the Framework for Higher Education Qualifications

17.   Support for students
In addition to the University Induction week, Foundation Year students are provided with extensive study skills support throughout. This allows the necessary study skills to be developed at the most appropriate time for the students' learning.
All students are allocated a Personal Academic Tutor (PAT) who they are required to see twice each semester. The tutorial sessions are structured to guide and support each student, on an individual basis, throughout their course and to help them to realise their potential. All tutors have an open-door policy.

The Disability and Dyslexia Service (DDS) provides advice and support to students who have a disability, medical condition or specific learning difficulty, including dyslexia. The DDS also provides support and advice to other departments and individual staff on how to ensure the needs of individual students are met. For more details see:

http://www.worcester.ac.uk/student-services/index.htm
https://www2.worc.ac.uk/disabilityanddyslexia/

There is a strong emphasis on practical and laboratory work using specialist equipment, which is supported by experienced Lecturers and expert technical staff.
Students have access to a Virtual Learning Environment (Blackboard Learning System) to provide module-specific material: documents, activities, videos etc.
Students are given a Course Handbook (published on an annual basis) to provide them with detailed information in relation to modules, and details of how to access University support for their studies.
Students are also given detailed module guides which include planned teaching activity, attendance requirements, assessment briefs, assessment criteria and resource lists.

18. **Admissions**

Admissions policy
We welcome applications from people over 18 years of age and all backgrounds with an interest in studying science at degree level. The University aims to be accessible; it is committed to widening participation and encouraging diversity in the student population. The School of Science and the Environment works closely with central student support services, including the Admissions Office, the Disability and Dyslexia Service and the International team (student services), to support students from a variety of backgrounds. We actively encourage and welcome people from the widest range of economic and cultural backgrounds, and value the contribution of mature learners. Students entering via non-standard entry routes will be interviewed to ensure they are adequately prepared for HE level study

Entry requirements
Students should be at least 18 years old and normally hold a minimum of GCSE English grade C/4.
See Admissions Policy for other acceptable qualifications
However, all applicants will be judged on their individual merits and the university may take other skills, qualifications and life experience into account.
The university welcomes mature students without the usual formal qualifications and will consider applications based on suitability and preparedness to complete the Foundation Year.

Admissions procedures
Applicants are normally considered on the basis of their UCAS application forms. It is not currently standard practice to interview candidates but those making an application who do not have the usual formal qualifications will be interviewed. Those who accept our offer will be invited to an Applicant Day to experience studying at Worcester.

Full-time applicants apply through UCAS W80. The UCAS code for each course is shown in Section 9.

Admissions/selection criteria
Offers are made in line with the entry requirements specified above and demonstration via the application form of a strong interest in Biological and/or Environmental Sciences. The reference given as part of the application is also taken into account.

19. **Regulation of assessment**

The course operates under the University's Taught Courses Regulatory Framework

Requirements to pass modules
- Modules are assessed using a variety of assessment activities which are detailed in the module specifications.
- The minimum pass mark is D- for each module.
- Students are required to submit all items of assessment in order to pass a module, and in some modules, a pass mark in each item of assessment may be required.
- Full details of the assessment requirements for a module, including the assessment criteria, are published in the module outline.

Submission of assessment items
- Students who submit course work late but within 7 days (1 week) of the due date will have work marked, but the grade will be capped at D- unless an application for mitigating circumstances is accepted.

- Students who submit work later than 7 days (1 week) will not have work marked unless they have submitted a valid claim of mitigating circumstances.
- For full details of submission regulations please see the Taught Courses Regulatory Framework.

Retrieval of failure
- Students are entitled to resit failed assessment items for any module that is awarded a fail grade.
- Reassessment items that are passed are capped at D-.
- If a student is unsuccessful in the reassessment, they have the right to retake the module (or, in some circumstances, take an alternative module); the module grade for a re-taken module is capped at D-.

Requirements for Progression

- Students are required to pass all 120 credits in the Foundation Year to progress to Level 4.
- A student who, by the time of the reassessment Board of Examiners, has failed 90 credits or more (after exhausting all reassessment opportunities) during the Academic Year, will have their registration with the University terminated.
- If a student has not passed 120 credits by the reassessment Board of Examiners, the student is not permitted to progress to Level 4 and will be required to either complete outstanding reassessment or retake failed modules in the following academic year. Students will be able to carry forward any passed modules.

Requirements for Awards

The requirements to achieve an exit award can be found here
https://www2.worc.ac.uk/aqu/715.htm in the Programme Specifications for the following degrees:

BSc (Hons) Biology (Zoology)
BSc (Hons) Biology (Biochemistry)
BSc (Hons) Biology (Biological Sciences)
BSc (Hons) Biomedical Science
BSc (Hons) Forensic and Applied Biology
BSc (Hons) Medical Sciences

20. **Graduate destinations, employability and links with employers**

Graduate destinations
Graduates from science degrees at University of Worcester can work in a wide range of careers. For example, possible career options include Biomedical Scientist, zoologist, healthcare scientist, analytical chemist and pharmacologists, environmental scientists. In addition, they can work in research careers in hospitals, academia, industry and the scientific civil service. The areas of biological and medical sciences are developing fast and the possible career options are increasing in line with this development. There has arguably never been a greater need for expert environmental scientists. Employers of science graduates include the civil service, National Health Service, Intellectual Property Office, Universities, as well as pharmaceutical and bio/environmental technology companies.

Student employability
Careers and employability are embedded in the curriculum at all levels of each degree. In the Foundation Year, students will be introduced to professional skills and career choices in BIOS 0003. At Level 4, students are introduced to the Careers Service in

BIOS 1201, Cell Biology, as part of the Science Personal Development Planning (PDP) scheme. Students are given the opportunity in almost every module to develop practical and work-related skills (see PDP table in student handbook). Specific career and employability planning and skills are offered in a range of modules at Levels 5 and 6, and these depend on the particular degree each student chooses. Work experience opportunities at Levels 5 and 6 give students the option to enhance their employability. Students at Levels 4 – 6 in the biological sciences will also record their practical skills in the Technical Skills Passport as a record to show prospective employers. Careers advice is given at all levels of the course.

Links with employers

The University has a strong track record of working closely with employers. The School of Science and the Environment has developed a Biological Sciences Employer Liaison Group, which helps maximise the employability of our graduates through optimised curriculum, and work experience, shadowing and visit opportunities. The School also has an excellent reputation for providing employers with professional, well prepared and well-motivated students. Organisations such as the NHS, West Mercia Police, Sequani, QinetiQ (Malvern), Malvern Cosmeceutics, Severn Biotech and Worcester Bosch have all expressed an interest in supporting the development and delivery of science-based subjects, which will bring employer focus to the student's chosen degree.

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in associated course documentation e.g. course handbooks, module outlines and module specifications.