

# University of the West of Scotland

## Undergraduate Programme Specification

**Session: 2023/24**

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Status: Published

<b>Named Award Title:</b>	<b>BSc (Hons) Applied Bioscience (sandwich available) Single</b>
<b>Award Title for Each Award:</b>	<b>BSc (Hons) Applied Bioscience (sandwich available) BSc Applied Bioscience Dip HE Science Cert HE Science</b>
<b>Date of Validation:</b>	January 2019
<b>Details of Cohorts Applies to:</b>	All students entering in 2023-2024.
<b>Awarding Institution/Body:</b>	University of the West of Scotland
<b>Teaching Institution:</b>	University of the West of Scotland
<b>Language of Instruction &amp; Examination:</b>	English
<b>Award Accredited By:</b>	BSc (Hons) Applied Bioscience is accredited by the Royal Society of Biology
<b>Maximum Period of Registration:</b>	
<b>Mode of Study:</b>	Full Time Part Time
<b>Campus:</b>	Lanarkshire
<b>School:</b>	School of Health and Life Sciences
<b>Programme Board</b>	Biological Sciences and Health
<b>Programme Leader:</b>	Dr Steven Kelly

### **Admission Criteria**

Candidates must be able to satisfy the general admission requirements of the University of the West of Scotland as specified in Chapter 2 of the University Regulatory Framework together with the following programme requirements:

### **SQA National Qualifications**

Year 1 Entry

Standard Entry Requirements: Scottish Highers: ABBB (114 UCAS Tariff points) including Biology or Human Biology

Minimum Entry Requirements: Scottish Highers: BBBB (108 UCAS Tariff points) including Biology or Human Biology

Year 2 Entry

Scottish Advanced Highers: BBC (136 UCAS Tariff points) including Biology / Human Biology, plus SQA National 5 (Grade C, or above) / Intermediate 2 (Grade C, or above) / Standard Grade (Credit) in Chemistry

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**or GCE**

## Year 1 Entry

A levels: BCC (104 UCAS Tariff points) including Biology or Human Biology

## OTHERS

Irish Leaving Certificate: H1 H2 H2 H2 including Biology or Human Biology

International Baccalaureate (IB) Diploma: 24 points, 3 @ HL including Biology or Human Biology

## Year 2 Entry

A levels: BBC (112 UCAS Tariff points) including Biology

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### or SQA National Qualifications/Edexcel Foundation

An appropriate HNC/HND award with the level of entry and/or credit awarded being subject to the content of the HN programme.

For year 2 entry HNC in Applied Science, Bioscience or equivalent qualification.

For year 3 entry HND in Biotechnology, Biomedical Science, Environmental Science, Industrial Biotechnology, Applied Biological Science or equivalent qualification.

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### Other Required Qualifications/Experience

Applicants may also be considered with other academic, vocational or professional qualifications deemed to be equivalent.

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### Further desirable skills pre-application

#### General Overview

The biosciences are the study of life at levels of organisation from molecules and cells to populations, communities and the biosphere. The core elements of this programme recognise these levels, with students being exposed to a range of bioscience disciplines. This broad platform together with recommended supporting subjects provides a solid foundation and the freedom for students to develop their particular interests in the later years of the programme, thereby permitting access to specific job markets requiring particular knowledge or skills.

An important feature of the programme is the optional inclusion of an accredited period of work-related learning that may take place on or off-campus. An appropriate placement that links to the student's interests is available in the second term of the third year; this provides an opportunity to put into practice the knowledge, skills and competences that have been acquired / developed previously. Students who complete the work placement successfully are better prepared to undertake the research project in the honours year. Students who do not select a work based learning option instead complete a module in Bioprofessional Skills, which provides alternative training in skills and practical techniques. These again provide experience which is further refined by the planning and performance of the honours year research project.

Graduates from this programme will have opportunity to follow a vocational career path or will be equally able to pursue a career that does not involve the subject discipline

Graduates with an appropriate classification of honours degree will be well placed to continue their studies at M.Sc. or Ph.D. level. The qualification is also acceptable to all Schools of Education as an acceptable entry qualification to the Post Graduate Diploma in Education for Biology & General Science teaching.

The revised benchmark statement for Biosciences continues to emphasise the breadth of the subject area and also places significant importance on the development of practical skills. The teaching strategy associated with the programme seeks to foster the following:

- To develop critical, analytical problem-based learning skills and the transferable skills to prepare the student for graduate employment.
- To enable the student to engage in lifelong learning, study and enquiry, and to appreciate the value of education to society.
- To assist the student to develop the skills required for both autonomous practice and team-working. To develop in the student a knowledge and understanding of the principles governing the biological sciences.
- To enable the student to extend knowledge and understanding to a critical assessment of current views and theories in the biological sciences.
- To enable the student to acquire competence in a range of practical methods in the biological sciences. To develop creativity and innovation in students

The above, particularly work-based skills, will be enhanced where a student opts to undertake a work-related learning component. In the proposed programme this can be facilitated as either a placement year or a shorter period of placement-based WRL (40 or 20 credit modules in term 2 at level 9). Alternatively, for those students who do not opt for a placement period, equivalent practical skills are developed particularly in the module Bioprofessional Practice (level 9). At level 10, the Bioscience Research Project continues development of graduate and practical skills, with inclusion of bioethics. All of the modules that support the above utilize a blend of formal lectures and practical work. Practical work includes both laboratory work and field trips. In addition, students at all levels are supported by personal tutors. E-learning is specifically enabled through the use of a Virtual Learning Environment. All modules within the programme use the VLE to support the delivery of material.

## Graduate Attributes, Employability & Personal Development Planning

### Graduate Attributes

The development of UWS graduate attributes is embedded within all years of the programme. Our aim is to provide students at UWS with opportunities to develop academically, professionally and personally: to broaden their ambitions, extend their attitudes, challenge their assumptions, and assist towards unlocking their potential to succeed in their studies and future lives.

**Critical Thinker** The ability to evaluate yourself and your own thinking; assessing and evaluating complex information from different sources, challenging and questioning presented knowledge and facts, drawing reflective conclusions and articulating knowledge. Thinking reflectively and logically, being able to explain your thought processes, forming your own conclusions, constructing coherent arguments and taking actions based on your own thinking and relevant information.

**Ethically-Minded** Understanding ethical principles, awareness and appreciation of the values and beliefs of others in relation to own actions. Knowledge of moral decisions; respect for other people's beliefs and the environment; being non-judgmental.

**Collaborative** Ability to work with a range of people, receptive to others' views and working well with others to reach shared goals. Being a good communicator, open-minded, flexible, empathetic, a good listener, and proactive.

**Autonomous** Taking responsibility for own actions to help become an independent learner. Applying learning and knowledge outwith university, having confidence in self, taking responsibility for own actions and making informed decisions. Self-directed, disciplined, using initiative and being self-motivated.

**Resilient** The ability to weather challenges and setbacks, utilising adversity to build new skills and support others in the future. Being determined, motivated, self-confident and demonstrating will-power. Not fearing failure.

**Driven** Ambitious; highly motivated to achieve desired outcome; focussed. A willingness to work hard; committed to achieving objectives; highly engaged with self-determination. Pushing personal boundaries and having the confidence to gain new experience.

**Problem Solver** Identifying what the problems are, including both what is known and what is unknown. Showing the application of knowledge to problematic situations/issues and evaluating a range of creative options; Identifying a problem and then finding solutions. Ability to be creative and knowledgeable enough to ask the right questions and to step up to take ownership of tasks/activities.

**Effective Communicator** To adapt what you are communicating to a specific audience. Communicating effectively to present ideas, discuss, persuade, negotiate, debate and challenge. Possessing skills to communicate verbally and non-verbally in an engaging and articulate manner. Listening.

**Ambitious** Aiming to achieve. Know where you want to be, setting goals, targets and making progress to accomplish these.

Individual modules will specify where opportunities to develop these attributes occur.

### Sandwich placement

The employability skills and attributes which students will gain experience in developing, applying and reflecting upon during the sandwich placement will be those identified by The Council For Industry and Higher Education (CIHE) (2006) as the key competencies which employers value as defined below

**Cognitive skills** (attention to detail, analysis and judgment)

- Demonstrate the use of their knowledge, understanding and skills, in both identifying and analysing problems and issues and formulating, evaluating and applying evidence-based solutions and arguments.
- Undertake critical analysis, evaluation and/or synthesis of ideas, concepts information and issues
- Identify and analyse routine professional problems and issues
- Draw on a range of sources in making judgments

**Generic competencies** (planning & organisation, influencing, written communication, questioning, listening, teamworking, interpersonal sensitivity, organisational sensitivity and lifelong learning and development)

- Well developed skills for the gathering, evaluation, analysis and presentation of information, ideas, concepts and quantitative and/or qualitative data, drawing on a wide range of current sources. This will include the use of ICT as appropriate to the subject(s)
- Communication of the results of their own and other work accurately and reliably in a range of different contexts using the main specialist concepts, constructs and techniques of the subject(s);
- Identifying and addressing their own learning needs including being able to draw on a range of current research, development and professional materials;
- Interpreting, using and evaluating numerical and graphical data to achieve goals targets
- Making formal and informal presentations on standard/mainstream topics in the subject/discipline to a range of audiences
- Work under guidance with qualified practitioners
- Practice in ways which take account of own and others' roles and responsibilities
- Take some responsibility for the work or others and for a range of resources

**Personal competencies** (creativity, decisiveness, initiative, adaptability/flexibility, achievement orientation, tolerance for stress and leadership)

- Application of their subject and transferable skills to contexts where criteria for decisions and the scope of the task may be well defined but where personal responsibility, initiative and decision-making is also required
- Exercising autonomy and initiative in some activities at a professional level

**Technical ability** (knowledge of key trends in modern technology and experience of using modern technology)

- Use of a range of IT applications to support and enhance work

**Practical and professional elements** (professional expertise, process operation and image)

- Show familiarity and competence in the use of routine materials, practices and skills and of a few that are more specialised, advanced and complex.
- Practise in a range of professional level contexts which include a degree of unpredictability;
- Deal with ethical and professional issues in accordance with current professional and/or ethical codes or practices, seeking guidance where appropriate

A placement year, generally between levels 9 and 10, or a shorter period of placement-based WRL (40 or 20 credit modules in term 2 at level 9), are options within the programme.

Without some form of vocational experience students find that entry into the job market is at best problematical. The purpose of the sandwich placement is to allow the student to experience the world of work on an extended basis. This opportunity allows the student to put in to practice, often within a rigidly controlled Quality Assurance environment, the skills, techniques and knowledge gained throughout the course.

Students who successfully complete the placement sandwich are better prepared for their honours project in the following year.

The mechanism by which students are selected for a particular placement is very employer dependant; some wish to interview; others will select solely on the basis of supplied CVs while others will trust the judgment of the Placement Co-ordinator. Factors which are important are the student's interests (academically speaking) and ease of travel to and from the Placement.

Prior to the Placement there will be a series of face to face tutorial sessions covering topics such as CV writing; interview technique; mock interviews; learning logs and aspects of QA that they will encounter while on placement.

There are three instruments of assessment in this module

A questionnaire that the employer completes on the student's contribution (in the widest sense) to the organisation and is translated to a grade by academic staff:

A log book / diary – the log book is a key component of the QA process in most if not all life science industries.

A report describing the organisation, the work carried out and reflection on what has been learned and how the student's attitudes have changed.

Successful completion of the placement will serve students well either when competing for appropriate employment or in their approach to the honours project in the following year.

The Work Placement is in compliance with the University's regulations and criteria for placement settings and in accordance with the Precepts detailed in the QAA UK Quality Code, Advice and Guidance: Work-based Learning - November 2018

The sandwich placement is designed for students to gain and reflect on work experience attained during their time in the workplace. The experience may also contribute towards meeting the membership requirements of a Professional body. Students undertaking a sandwich placement are required to undertake PDP and maintain a portfolio from which they will be required to produce a comprehensive learning log report charting their development during placement. This is assessed on a pass /fail basis only with the majority of ongoing assessment being formative in nature. The student will be required, through reflection, to explore their own role within their placement organisation and to take account of the roles and responsibilities of themselves and others in the context of the structures in which they operate. On successful completion of the placement, the learner will be more employable as a result of having developed their ability to integrate essential generic skills and attributes with subject/discipline related knowledge.

The placement will be governed by a tripartite learning agreement between the student, placement provider and the University which defines the learning outcomes and confirms elements of support and commitment from all parties. The agreement will be signed by each party prior to the start of the placement and it is expected that Schools will continue to use their existing placement systems for the management of such agreements.

### **Learning Outcomes**

At the end of the placement the student will be able to:

L1. Critically relate elements of the placement work experience to the main themes and issues of academic study of [subject discipline] relevant within the workplace and be confident in articulating this to others

L2. Analyse organisational cultures and structures with particular relevance to the current workplace and exhibit the ability to critically evaluate employee roles in an applied setting.

L3. Recognise, critically assess and be able to clearly demonstrate to others the personal development and application of essential employability skills and attributes within a real work situation.

### **Assessment**

Assessment will be based on pass/fail only and all assessment elements must be passed for progression as part of the Sandwich programme. Assignments will be open to external examination in accordance with University regulations.

In order to submit for assessment students need to:

- Attend the workplace(s) in which they have been placed for a minimum total of 36 weeks (180 full workingdays) and have their employer(s) confirm their attendance
- Receive a satisfactory assessment of work performance from their workplace supervisor(s) and academic tutor (based on two interviews and other evidence as required)
- Maintain a PDP portfolio and use this to submit a satisfactory learning log report reflecting on the placement experience (minimum 2,000 words)
- Successfully complete a subject related project (minimum 3,000 words or equivalent)

Where a student's sandwich placement is made up of two separate planned periods of work experience (i.e. a "Thin Sandwich"), the PDP portfolio report and subject related report will normally be submitted and assessed during the second period of placement.

Assessment of the first period of placement will relate to satisfactory performance in the workplace

Extenuating circumstances will be taken into consideration in accordance with University regulations.

### **Reassessment**

Minimum period in work: It is essential that the student completes at least 36 weeks (180 working days) in employment. If the student does not meet this minimum requirement then they cannot pass the placement.

- Catch up: Where through no fault of their own a student has been unable to attain at least 36 weeks placement experience they will be entitled to secure the additional work experience required through a suitable additional period of work experience provided this is agreed in advance with the Programme Team.
- Retake of Placement: a repeat or alternative placement will only be considered on health or other extenuating grounds or where the placement is terminated due to no fault of the student. In such cases the student will receive counselling from the placement tutor on how best to proceed.
- Satisfactory Performance: The first interview will be used to assess the student's progress. If it is considered that the student's performance is less than expected at that stage, the student will be advised of this and of the elements of their performance that need to improve. If the student's performance is assessed as unsatisfactory at the second interview then the student will be given further advice on the steps they need to take to achieve a satisfactory assessment and will be reassessed through a third interview at the end of their placement period. Interviews will normally be conducted within the workplace unless a suitable alternative method is agreed by all parties.
- Reflective Report from PDP: If the reflective report is unsatisfactory, the student will be given the opportunity to resubmit in line with University regulations
- Subject related report: If the subject related report is unsatisfactory the student will be given the opportunity to resubmit in line with University regulations

### **Progression/Award**

- Placement students will be assigned to a specific School Assessment Board.
- The relevant Assessment Board will consider the performance of each sandwich placement student and decide eligibility for reassessment, progression and awards in accordance with University Regulations.
- A student who fails the sandwich placement after reassessment will no longer be eligible for a "with sandwich" award. They will either progress to level 9 or 10 (as appropriate) of a non-sandwich equivalent programme or exit with an equivalent non-sandwich award.

### **Engagement**

In line with the [Academic Engagement Procedure](#), Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on the relevant learning platform, and complete assessments and submit these on time.

Where a programme has Professional, Statutory or Regulatory Body requirements these will be listed here:

Regular engagement with timetabled teaching sessions, course-related learning resources including those in the library and VLE, completing assessments and submitting these on time.

### **Equality and Diversity**

Further information on the institutional approach to Equality, Diversity and Inclusion can be accessed at the following link: <https://www.uws.ac.uk/about-uws/uws-commitments/equality-diversity-inclusion/>

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.

**Programme structures and requirements, SCQF level, term, module name and code, credits and awards ( Chapter 1, Regulatory Framework )**

**A. Learning Outcomes (Maximum of 5 per heading)**

Outcomes should incorporate those applicable in the relevant QAA Benchmark statements

<b>Knowledge and Understanding</b>	
<b>A1</b>	Demonstrate a broad awareness of the diversity of the subject area of bioscience and the nature of the main contributing areas.
<b>A2</b>	Demonstrate an awareness of the difference between explanations based in evidence and other forms of explanation and the importance of this difference.
<b>Practice - Applied Knowledge and Understanding</b>	
<b>B1</b>	Use of basic and routine practical skills in the biological sciences
<b>B2</b>	An ability to collect and record biological data
<b>B3</b>	Be able to work safely in a laboratory environment
<b>Communication, ICT and Numeracy Skills</b>	
<b>C1</b>	Use relevant computing technologies to display biological data
<b>C2</b>	Use and manipulation of numerical data
<b>Generic Cognitive Skills - Problem Solving, Analysis, Evaluation</b>	
<b>D1</b>	Present and evaluate biological information.
<b>Autonomy, Accountability and Working With Others</b>	
<b>E1</b>	Exercise initiative in undertaking laboratory reports and other written material
<b>E2</b>	Demonstrate an ability to work in a group or as part of a team

**Core Modules**

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
7	BIOL07022	Chemistry for Environmental & Biosciences	20	✓	✓		
7	BIOL07023	Fundamentals of Life	40	✓			



7	APPD07001	ASPIRE	20	✓	✓		
7	BIOL07020	Diversity of Life	40		✓		

\* Indicates that module descriptor is not published.

Footnotes

### Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	

\* Indicates that module descriptor is not published.

Footnotes

### Criteria for Progression and Award

Refer to University Regulations regarding progression with credit deficit, note, the decision to permit a proceed with carry is not automatic but is subject to detailed discussion at the Board of Examiners. The exit award is the Certificate in Higher Education in Science, the requirements for which are 120 credits at SCQF 7 or higher.

### B. Learning Outcomes (Maximum of 5 per heading)

Outcomes should incorporate those applicable in the relevant QAA Benchmark statements

<b>Knowledge and Understanding</b>	
<b>A1</b>	Demonstrate a broad knowledge of the essential facts, major concepts, principles and core theories associated with the biological sciences
<b>A2</b>	Demonstrate an understanding of ideas, concepts and facts relating to biology
<b>A3</b>	Be able to formulate simple hypotheses
<b>Practice - Applied Knowledge and Understanding</b>	
<b>B1</b>	Use a range of basic and routine practical skills in the biological sciences
<b>B2</b>	Formulate and test hypotheses using scientific methods
<b>B3</b>	Detailed data collection in the biological sciences
<b>B4</b>	Appreciate the importance of safety in both laboratory and field environments when collecting biological data
<b>Communication, ICT and Numeracy Skills</b>	
<b>C1</b>	Be able to convey complex ideas to a range of different audiences including peers and academics
<b>C2</b>	Routine use of IT for the presentation and manipulation of biological data
<b>C3</b>	Ability to interpret different sets of data
<b>Generic Cognitive Skills - Problem Solving, Analysis, Evaluation</b>	
<b>D1</b>	Evaluate biological information
<b>D2</b>	Use different approaches to formulate evidence-based solutions

## Autonomy, Accountability and Working With Others

<b>E1</b>	Exercise initiative in undertaking laboratory reports and other written material
<b>E2</b>	Be able to work in a team and also to follow instructions in relation to laboratory work
<b>E3</b>	Development of the ability to manage time in respect of laboratory practical work

### Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
8	BIOL08002	Practical Skills in Biomed. and Env. Health	20	✓			
8	BIOL08012	Genetics	20		✓		
8	BIOL08004	Introductory Microbiology	20		✓		

\* Indicates that module descriptor is not published.

Footnotes

### Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
		Any three from the following modules					
8	BIOL08001	Vertebrate Physiology	20	✓			
8	BIOL08003	Human Biology	20	✓			
8	BIOL08005	Cells & Sugars	20		✓		
8	BIOL08023	Enterprise Skills for Biologists 20	20	✓			
8	BIOL08025	Humans and the Global Biosphere	20		✓		
		Any additional module to which timetable and entry pre-requisites permit (if only taking 3 from above)					20 Credits

\* Indicates that module descriptor is not published.

Footnotes

### Criteria for Progression and Award

Refer to University Regulations regarding progression with credit deficit, note, the decision to permit a proceed with carry is not automatic but is subject to detailed discussion at the Board of Examiners. The exit award is the Diploma in Higher Education in Science, the requirements for which are 240 credits with at least 90 credits being at SCQF 8 or higher.

### C. Learning Outcomes (Maximum of 5 per heading)

Outcomes should incorporate those applicable in the relevant QAA Benchmark statements

<b>Knowledge and Understanding</b>	
<b>A1</b>	Demonstrate a broad and integrated knowledge of ideas, concepts and facts relating to the biosciences in situations ranging from the basic to the complex, in a variety of cellular and/or environmental systems, and with an emphasis on the applied aspects of the subject.

<b>A2</b>	Demonstrate an appreciation and awareness of the complexity and diversity of plant and animal life processes through knowledge of organisms, their molecular, cellular and physiological processes, their genetics and evolution, and the inter-relationships between them and their environment.
<b>A3</b>	Be able to formulate and to test hypotheses as they relate to biological knowledge
<b>Practice - Applied Knowledge and Understanding</b>	
<b>B1</b>	Use a range of basic and routine practical skills, and a few specialized skills in the biological sciences
<b>B2</b>	Show an ability to interpret experimental evidence
<b>B3</b>	An understanding of different methods of data collection and recording in bioscience
<b>B4</b>	Appreciate the importance of safety and develop the skills required to carry out a risk assessment
<b>Communication, ICT and Numeracy Skills</b>	
<b>C1</b>	Evaluate qualitative and quantitative data and recognize the difference between these data sets
<b>C2</b>	Be able to convey complex ideas and to make formal presentations to a wide range of audiences
<b>C3</b>	Be able to use appropriate IT to manipulate, statistically analyse, and present biological data.
<b>Generic Cognitive Skills - Problem Solving, Analysis, Evaluation</b>	
<b>D1</b>	Critically evaluate and synthesize biological information
<b>D2</b>	Be able to identify routine professional problems and issues
<b>Autonomy, Accountability and Working With Others</b>	
<b>E1</b>	Exercise initiative in undertaking laboratory reports and other written material
<b>E2</b>	Be able to take responsibility for the work of others when undertaking group project work
<b>E3</b>	Be able to deal with ethical issues associated with the biological sciences

#### Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
		Students take WRL or modules developing graduate skills in one of the following combinations:					
9	BIOL09023	Work Related Learning 40	40		✓		
		OR					
9	BIOL09022	Work Related Learning 20	20		✓		
		OR					
9	BIOL09011	Bio-Professional Practice	20		✓		

\* Indicates that module descriptor is not published.

## Footnotes

## Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
		5 modules (4 if 40 credits taken above) at least 4 of which must be selected from the following specified options:					
9	BIOL09003	Human Physiology	20		✓		
9	BIOL09005	Applied Microbiology	20	✓			
9	BIOL09006	Proteins: Form & Function	20		✓		
9	BIOL09009	Bio-Case Study	20		✓		
9	BIOL09013	Entomology & Parasitology	20	✓			
9	BIOL09020	Pure & Applied Genetics	20		✓		
9	BIOL09034	Infection and Immunity	20	✓			
9	BIOL09014	Factors Affecting Drug Action	20		✓		
		Any module to which timetabling and entry prerequisites permit (if only 100 credits taken from core and optional)					20 credits

\* Indicates that module descriptor is not published.

## Footnotes

## Criteria for Progression and Award

The exit award from the programme is a Scottish Bachelors Degree, BSc (Ordinary) Applied Bioscience, the requirements for which are 360 credits, with at least 90 of these at SCQF 9 or higher. An award with distinction will be made in accordance with University regulations. For progression to SCQF 10 the requirements for the exit award, and the prerequisites for the modules in the programme at the next level, must normally be satisfied. Where progression involves a placement this will normally precede the honours programme. Specific objectives for the sandwich award include the development of work-based skills in the applied biosciences that are related to the placement. The specific nature of these would relate to the actual placement that is undertaken. Where the Scottish Bachelors Degree exit award is taken following completion of the placement the award will be with sandwich.

## D. Learning Outcomes (Maximum of 5 per heading)

Outcomes should incorporate those applicable in the relevant QAA Benchmark statements

<b>Knowledge and Understanding</b>	
<b>A1</b>	Show an awareness of current developments in applied bioscience and their applications, noting philosophical and ethical issues that have arisen and which affect the quality and sustainability of life.
<b>A2</b>	Demonstrate knowledge of the applicability of biology credentials to career development.
<b>A3</b>	Demonstrate a critical understanding of key principles, theories, and concepts within the applied biosciences and applications of these.
<b>A4</b>	Develop specific hypotheses for testing in a research project
<b>Practice - Applied Knowledge and Understanding</b>	

<b>B1</b>	Use a wide range of basic and routine practical skills, and a few specialized skills in the biological sciences
<b>B2</b>	Execute a defined research project. Be able to accurately collect and record specific data as it relates to the biological sciences
<b>B3</b>	Identify and retrieve scientific information
<b>B4</b>	Undertake a risk assessment and costing as it relates to a research project
<b>B5</b>	Present information clearly and accurately
<b>Communication, ICT and Numeracy Skills</b>	
<b>C1</b>	Be able to convey complex ideas and to make formal presentations on specialised topics to a wide range of audiences
<b>C2</b>	Be able to use different statistical packages to analyse, manipulate and present data sets
<b>Generic Cognitive Skills - Problem Solving, Analysis, Evaluation</b>	
<b>D1</b>	Be able to identify routine professional problems and issues and to offer professional insights and interpretations
<b>D2</b>	Critically identify, define and conceptualize issues within the applied biosciences and the applications of the discipline
<b>D3</b>	Be able to review and consolidate knowledge and to make judgments where the information available is limited
<b>Autonomy, Accountability and Working With Others</b>	
<b>E1</b>	Exercise substantial initiative in undertaking honours research project
<b>E2</b>	Evidence of the development of independent research work and associated management of time
<b>E3</b>	Be able to deal with complex ethical issues in the applied biosciences

#### Core Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
10	BIOL10006	Bioscience Research Project	40	✓	✓		T1 and T2

\* Indicates that module descriptor is not published.

Footnotes

#### Optional Modules

SCQF Level	Module Code	Module Name	Credit	Term			Footnotes
				1	2	3	
		4 modules from the following specified options:					
10	BIOL10002	Public Health Microbiology	20		✓		
10	BIOL10008	Clinical Immunology	20	✓			

10	BIOL10009	DNA Technology	20		✓		
10	BIOL10015	Pest Management	20	✓			
10	BIOL10025	Food and Environmental Microbiology	20	✓			
		Any L9 or L10 module to which timetable and entry pre-requisites permit					20 credits

\* Indicates that module descriptor is not published.

Footnotes

### Criteria for Award

At least 480 credits including a minimum of 90 at SCQF 10 are required for the award of a Scottish Bachelors Degree with honours in Applied Bioscience. Where the award is a sandwich award the specific objectives for the sandwich award include the development of work-based skills in the applied biosciences that are related to the placement. The specific nature of these would relate to the actual placement that is undertaken. Where the Scottish Bachelors Degree (with honours) exit award is taken following completion of the honours year after the sandwich year, the award will be with sandwich.

### Regulations of Assessment

Candidates will be bound by the general assessment regulations of the University as specified in the [University Regulatory Framework](#).

An overview of the assessment details is provided in the Student Handbook and the assessment criteria for each module is provided in the module descriptor which forms part of the module pack issued to students. For further details on assessment please refer to Chapter 3 of the Regulatory Framework.

To qualify for an award of the University, students must complete all the programme requirements and must meet the credit minima detailed in Chapter 1 of the Regulatory Framework.

### Combined Studies

There may be instances where a student has been unsuccessful in meeting the award criteria for the named award and for other more generic named awards existing within the School. Provided that they have met the credit requirements in line with the SCQF credit minima (please see Regulation 1.21), they will be eligible for an exit award of CertHE / DipHE or BA / BSc in Combined Studies.

For students studying BA, BAcc, or BD awards the award will be BA Combined Studies.

For students studying BEng or BSc awards, the award will be BSc Combined Studies.

### Changes

#### Changes made to the programme since it was last published:

Updated core level 7 modules, updated L10 options

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