Undergraduate Programme Specification

Session	2026/27	**Last Modified**	March 2026
Named Award Title	BSc (Hons) Appl'd Bioscience with Forensic Investigation		
Award Title for Each Award	BSc (Hons) Appl'd Bioscience with Forensic Investigation BSc Applied Bioscience with Forensic Investigation Dip HE Science Cert HE Science		
Date of Approval	January 2019		
Details of Cohort Applies to	All new and existing cohorts		
Awarding Institution	University of the West of Scotland	**Teaching Institution(s)**	University of the West of Scotland
Language of Instruction & Examination		English	
Award Accredited by		The Royal Society of Biology (RSB)	
Maximum Period of Registration		8 years	
Duration of Study			
Full-time	4 years	**Part-time**	8 years
Placement (compulsory)	No		
Mode of Study	☒ Full-time ☒ Part-time		
Campus	☐ Ayr ☐ Dumfries	☒ Lanarkshire ☐ London ☐ Paisley	☐ Online / Distance Learning ☐ Other (specify)
School	**Health and Life Sciences**		
Divisional Programme Board	**Biological Sciences Health**		
Programme Leader	Steven Kelly		

Admissions 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.

Year 1 Entry: 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.

Or GCE
Year 1 Entry: A levels: BCC (104 UCAS Tariff points) including Biology or Human Biology
Year 2 Entry: A levels: BBC (112 UCAS Tariff points) including Biology.

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.

Year 2 entry: HNC in Applied Science, Bioscience or equivalent qualification.

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

Other Required Qualifications/Experience
Applicants may also be considered with other academic, vocational or professional qualifications deemed to be equivalent.

Further desirable skills pre-application

General Overview
Forensic Investigation is the application of scientific knowledge and techniques to solving crime. The aim of this course is to provide students with an understanding of the theory and application of key laboratory techniques used in the biosciences and forensic science. There will be opportunities to acquire expertise in scientific techniques, analysis and presentation of results. This will be set in the context of the crime scene where you will acquire knowledge and skills essential to crime scene management and investigation. Skills will be applied to crime scene scenarios involving gathering evidence, scientific analysis of evidence and presentation of that evidence in a legal context. Throughout the course there will be an emphasis on health, safety and quality. The content of this course has been developed taking cognisance of the component standards for forensic science set by the forensic science society and the advice of practitioners. Importantly you will gain the underpinning knowledge and skills in biological sciences and chemistry that are essential to forensic investigations.

Transferable skills such as analysis, quality, teamwork, presentation skills, problem solving, research skills and IT will be developed throughout the course. In Applied Bioscience with Forensic Investigation there is the opportunity for a work placement. The knowledge and skills acquired will allow graduates to seek employment in the Forensic Science and Life Science fields or they will be equally able to pursue a career that does not involve the subject discipline. The programme will develop creativity and innovation in students through specific workshops, tutorials and assessments.

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 (Applied Bioscience with Forensic Investigation) 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.

A variety of teaching, learning and assessment strategies will be employed to give each student the best possible learning experience with the resources available; furthermore, the teaching methods reflect those aims and objectives that emphasise the development of appropriate subject-specific and transferable skills, knowledge and increasing autonomy in student learning. The use of module handbooks giving details of all aspects of module content, teaching, learning and assessment approaches and reading lists also encourages more independent learning by the student. All modules will use the VLE to support the delivery of material. All students will experience a wide range of teaching and learning methods including lecture/tutorial, role play, practical and field work. A series of case studies and mock crime scenes will be developed throughout the course in modules such as Forensic Investigation and From Crime Scene to Court; these will enhance the development of problem solving, practical and presentation skills as well as the skills associated with lateral thinking. In all cases the module team will be responsible for selecting the most appropriate methods of delivery and assessment to allow the alignment of teaching methods with the intended learning outcomes of the module.

Modules delivered in the initial stages of the course are more likely to involve the delivery of fundamental or underpinning knowledge to students and the modes of delivery will reflect this. Subsequent modules in the later years will seek to develop a deeper approach to learning thus moving towards becoming independent learners. The development of deep learning approaches in students will be encouraged by a variety of techniques:

Many modules in year 1 will primarily involve the delivery of a factual knowledge base in a specific area. The rationale being that, prior to engaging with higher-level cognitive tasks, students must possess a basic grasp of the fundamental concepts and specialist vocabulary in order to subsequently construct their own knowledge. Methods of delivery which encourage students to utilise their existing knowledge base to construct ideas, source material for inclusion in reports or essays etc will be employed as modules progress.

Second year modules will introduce more aspects of problem solving, structured discussions, assessments which require independent research to be carried out and practical exercises which require the students to hypothesise in a more informed manner regarding their experimental data. More emphasis will be placed upon directing students to appropriate literature resources to encourage a greater depth of reading around the subject areas.

The emphasis in most modules in years 3 and 4 will be on the application of scientific knowledge and the construction of new ideas, concepts or hypotheses. Students will be expected to utilise current scientific journal papers as primary sources of information and

critically analyse such sources in essays, posters etc. The synthesis of concepts from different modules and/or years of the course will be encouraged by more open-ended discussions which require students to draw upon a wider range of knowledge and the links they have been able to construct between their knowledge bases for specific areas of study.

A principal aim of assessment is to allow students the opportunity to review and assess their learning and their achievements of the stated Learning Outcomes. Their assessments will be constructively aligned with the Learning Outcomes thus promoting confidence in the student that there is clarity of expectation associated with the instruments of assessment. Students can be assured that there is validity, reliability, utility, fairness and transparency in the assessment tasks. A key feature of assessment for learning is the timely availability of feedback to the student that will allow the student to feed this help forward to forthcoming assessment tasks. Assessments will be both formative and summative. It is expected that the student will devote a considerable amount of time to reflective learning and independent study consolidating the material delivered in lectures as well as researching background material for laboratory reports and other assignments. Students at all levels are supported by personal tutors who can be contacted personally or through e-mail or web site communication at any reasonable time. For first year students and direct entrants, a carefully constructed induction timetable will be provided.

Typical Delivery Method

All modules will be delivered on-campus with one day per module nominally assigned.

Any additional costs

Students must provide their own laboratory coat for use in the practical sessions. Safety glasses/ goggles must also be worn in all practical sessions. Students can bring their own safety glasses, but these can be provided by the technical staff in the lab.

Graduate Attributes, Employability & Personal Development Planning

he 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 you 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 skills occur.

Work Based Learning/Placement Details

The programme has an optional work related learning module at level 9. The purpose of this module 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. Since this module is normally scheduled to run up to the end of the second term there can be opportunities for some students to be retained in a paid capacity to provide summer cover which further enhances their eventual employability.

The alternative to work related learning is the Bio-professional Practice module which aims to develop some of the key skills and competencies required in the work place.

The mechanism by which students are selected for a particular placement is very employer dependent; 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. Not only will these tutorials prepare the student for the placement but the results may also be included in the student's e-portfolio (Personal Development Planning).

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 this module 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 accordance with the QAA UK Quality Code, Advice and Guidance: Work-based Learning - November 2018.

Attendance and Engagement

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are attending and participating in all timetabled programme activities including on-campus and online teaching sessions, asynchronous online learning activities, placement, work-based elements, course-related learning resources, and complete assessments and submit these on time.

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

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

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

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)

Learning Outcomes

SCQF LEVEL 7 Learning Outcomes	
Knowledge and Understanding	
A1	Demonstrate a broad knowledge of theories and concepts in bioscience, crime scene management and investigation.
A2	Demonstrate an awareness of the difference between explanations based in evidence and other forms of explanation and the importance of this difference.
A3	
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Use of basic and routine practical skills performed in biological science and forensic investigation.
B2	An ability to collect and record scientific data.
B3	Be able to work safely in a laboratory environment.
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Use and manipulation of numerical data.
C2	Present information and ideas coherently both orally and in written form.
C3	
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Present and evaluate scientific information.
D2	
D3	
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise initiative in undertaking laboratory reports and other written material.
E2	Demonstrate an ability to work in a group or as part of a team.
E3	
E4	
E5	

Level 7 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
7	APPD07001	Aspire: Foundations for Success	20	☒	☒	☐	
7	BIOL07022	Chemistry for Environmental & Biosciences	20	☒	☒	☐	
7	BIOL07023	Fundamentals of Life	40	☒	☐	☐	
7	BIOL07020	Diversity of Life	40	☐	☒	☐	
				☐	☐	☐	
				☐	☐	☐	
Footnotes for Core Modules							

Level 7 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
Footnotes for Option Modules							

Level 7
Criteria for Progression and Award
Please refer to UWS Regulatory Framework for related regulations

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.

SCQF LEVEL 8 Learning Outcomes	
Knowledge and Understanding	
A1	Demonstrate a broad knowledge of the essential facts, major concepts, principles and core theories associated with the biological sciences and analysis of forensic evidence.
A2	Demonstrate an understanding of ideas, concepts and facts relating to biology and forensic investigation.
A3	Be able to formulate simple hypotheses.
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Use a range of basic and routine practical skills applicable to biological and forensic science.
B2	Formulate and test hypotheses using scientific methods.
B3	Detailed data collection in the biological sciences.
B4	Appreciate the importance of safety and quality in both laboratory and field environments when collecting biological data and forensic evidence.
B5	
Communication, ICT and Numeracy Skills	
C1	Be able to convey complex ideas to a range of different audiences including peers and academics.
C2	Routine use of IT for the presentation and manipulation of scientific data.
C3	Ability to interpret different sets of data.
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Evaluate biological and forensic information.
D2	Use different approaches to formulate evidence-based solutions.
D3	
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise initiative in undertaking laboratory reports and other written material.
E2	Be able to work in a team and to also follow instructions in relation to laboratory work.
E3	
E4	
E5	

Level 8 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
8	BIOL08026	Forensic Evidence Analysis and Retrieval	40	☒	☒	☐	
8	BIOL08002	Practical Skills	20	☒	☐	☐	
8	BIOL08004	Introductory Microbiology	20	☐	☒	☐	
8	BIOL08012	Genetics	20	☐	☒	☐	
8	APPD08001	Aspire: Shaping Your Future	20	☒	☐	☐	
				☐	☐	☐	
Footnotes for Core Modules							

Level 8 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
Footnotes for Option Modules							

Level 8
Criteria for Progression and Award
Please refer to UWS Regulatory Framework for related regulations

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.

SCQF LEVEL 9 Learning Outcomes (Maximum of 5 per heading)	
Knowledge and Understanding	
A1	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.
A2	Demonstrate a broad and integrated knowledge of analytical techniques used in forensic science and methods of criminal investigation from crime scene to court.
A3	Be able to formulate and to test hypotheses as they relate to biological knowledge.
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Select and use a range of basic and routine practical skills, and a few specialized skills in biological sciences and forensic investigation.
B2	Show an ability to interpret experimental evidence.
B3	An understanding of different methods of data collection and recording in biological and forensic science.
B4	Appreciate the importance of safety and quality.
B5	
Communication, ICT and Numeracy Skills	
C1	Evaluate qualitative and quantitative data and recognize the difference between these data sets.
C2	Be able to convey complex ideas and to make formal presentations to a wide range of audiences.
C3	Be able to use appropriate IT to manipulate, statistically analyse, and present scientific data.
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Critically evaluate and synthesize general biological information and in the context of forensic science.
D2	Be able to identify routine professional problems and issues.
D3	
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise initiative in undertaking laboratory reports and other written material.
E2	Be able to take responsibility for the work of others when undertaking group project work.
E3	Be able to deal with ethical issues associated with the biological sciences and practice of forensic investigation.

E4	
E5	

Level 9 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
9	BIOL09044	Applied Forensic Biology and Chemistry	40	☒	☒	☐	
		Plus one of the below		☐	☐	☐	
9	BIOL09022	Work Related Learning 20	20	☐	☒	☐	
9	BIOL09023	Work Related Learning 40	40	☐	☒	☐	
9	BIOL09011	Bio-Professional Practice	20	☐	☒	☐	
				☐	☐	☐	
Footnotes for Core Modules Students take one of the above WRL modules or modules developing PDP skills.							

Level 9 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
9	BIOL09005	Applied Microbiology	20	☒	☐	☐	
9	BIOL09009	Bio-Case Study	20	☐	☒	☐	
9	BIOL09013	Entomology and Parasitology	20	☒	☐	☐	
9	BIOL09014	Factors Affecting Drug Action	20	☐	☒	☐	
9	BIOL09020	Pure and Applied Genetics	20	☐	☒	☐	
9	BIOL09034	Infection and Immunity	20	☒	☐	☐	
Footnotes for Option Modules Any module to which timetabling and entry prerequisites permit (if only 100 credits taken from core and optional).							

Level 9
Criteria for Progression and Award
Please refer to UWS Regulatory Framework for related regulations

The award from the programme is a Scottish Bachelors Degree, BSc (Ordinary) Applied Bioscience with Forensic Investigation, 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.

SCQF LEVEL 10 Learning Outcomes (Maximum of 5 per heading)	
Knowledge and Understanding	
A1	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.
A2	Demonstrate knowledge of the applicability of biology credentials to career development.
A3	Demonstrate a critical, integrated understanding and of key principles, theories, and concepts within applied biosciences, forensic analysis and crime scene investigation.
A4	Develop specific hypotheses for testing in a research project.
A5	
Practice - Applied Knowledge and Understanding	
B1	Use a wide range of basic and routine practical skills, and a few specialized skills in biological sciences, analysis of forensic evidence and crime scene investigation.
B2	Execute a defined research project. Be able to accurately collect and record specific data as it relates to the biological sciences.
B3	Identify and retrieve scientific information.
B4	Undertake a risk assessment and costing as it relates to a research project.
B5	Present information clearly and accurately.
Communication, ICT and Numeracy Skills	
C1	Be able to convey complex ideas and to make formal presentations on specialised topics to a wide range of audiences.
C2	Be able to interpret, use and evaluate data.
C3	
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Be able to identify routine professional problems and issues and to offer professional insights and interpretations.
D2	Critically identify, define and conceptualize issues within the applied biosciences and the applications of the discipline.
D3	Be able to review and consolidate knowledge and to make judgments where the information available is limited.
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise substantial initiative in undertaking honours research project.
E2	Evidence of the development of independent research work and associated management of time.
E3	Be able to deal with complex ethical issues in applied biosciences and forensic investigation.

E4	
E5	

Level 10 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
10	BOL10014	From Crime Scene to Court	20	☐	☒	☐	
10	BOL10028	Advancements in Forensic Biology	20	☒	☐	☐	
10	BOL10006	Bioscience Research Project	40	☒	☒	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
Footnotes for Core Modules							

Level 10 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
10	BIOL10002	Public Health Microbiology	20	☐	☒	☐	
10	BIOL10008	Clinical Immunology	20	☒	☐	☐	
10	BIOL10018	Clinical Genetics	20	☐	☒	☐	
10	BIOL10015	Pest Management	20	☒	☐	☐	
10	BIOL10025	Food and Environmental Microbiology	20	☒	☐	☐	
				☐	☐	☐	
Footnotes for Option Modules Any module to which timetabling and entry prerequisites permit.							

Level 10 **Criteria for Award** ***Please refer to UWS Regulatory Framework for related regulations***
Standard University guidelines will be followed to decide on Honours degree classification. At least 480 credits are required with at least 90 at SCQF level 10.

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 a Combined Studies award (please see Regulation 1.61). 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.

Version no: 1

Change/Version Control

What	**When**	**Who**
L8 Aspire added as core module to Year 2 and L8 options removed. L9 core modules Forensic Analytical Techniques (BIOL09015) and Forensic Investigation (BIOL09016) removed and replaced with new core module Applied Forensic Biology and Chemistry.	27/3/2026	SK