Undergraduate Programme Specification

Session	2025/26	**Last Modified**	24/07/25
Named Award Title	BSc (Hons) Physics with Education (2023)		
Award Title for Each Award	BSc (Hons) Physics with Education (2023) BSc Physics with Education Studies Dip HE Science Cert HE Science		
Date of Approval	2024		
Details of Cohort Applies to	All students on programme.		
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		General Teaching Council for Scotland	
Maximum Period of Registration		6 Years Full-time,	
Duration of Study			
Full-time	4 years	**Part-time**	N/A
Placement (compulsory)			
Mode of Study	☒ Full-time ☐ Part-time		
Campus	☒ Ayr ☐ Dumfries	☐ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)
School	School of Computing, Engineering, and Physical Sciences		
Divisional Programme Board	Engineering and Physical Sciences		
Programme Leader	Professor John F. Smith		

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: Higher: BCCC including Physics and Mathematics plus English at SCQF Level 5 (e.g. National 5, Standard Grade (Grade 3 or above), Intermediate 2).

Year 2: Advanced Higher: CCD including Physics and Mathematics plus English at SCQF Level 5 (e.g. National 5, Standard Grade (Grade 3 or above), Intermediate 2).

Before progressing to Year 3, students must have attained a qualification in English at SCQF Level 6 (e.g. Higher). Students must successfully undertake an interview conducted by School of Education staff.

Students who are offered the opportunity to progress to Year 3 of this programme must apply for and obtain membership of the Protection of Vulnerable Groups Scheme before enrolment.

Experience of working with young people and up-to-date knowledge and understanding of secondary education in Scotland will aid progression to Year 3.

Or GCE

Year 1: A-Level: CCD including Physics and Mathematics plus GCSE (Grade C or above) English

Year 2: A-Level: BCC including Mathematics plus GCSE (Grade C or above) English

Before progressing to Year 3, students must meet the following requirements: GCSE English Language and English Literature at C or above. Students must successfully undertake an interview conducted by School of Education staff.

Students who are offered the opportunity to progress to Year 3 of this programme must apply for and obtain membership of the Protection of Vulnerable Groups Scheme before enrolment.

Experience of working with young people and up-to-date knowledge and understanding of secondary education in Scotland will aid progression to Year 3.

Or SQA National Qualifications / Edexcel Foundation

Year 1: SQA HNC (Grade A)/BTEC Level 4 HNC in Physics, Applied Sciences or a relevant discipline.

Year 3: SQA HND in Physics, Applied Sciences or a relevant discipline.

Before progressing to Year 3, students must have attained a qualification in English at SCQF Level 6 (e.g. Higher). Furthermore, students must successfully undertake an interview conducted by School of Education staff.

Students who are offered the opportunity to progress to Year 3 of this programme must apply for and obtain membership of the Protection of Vulnerable Groups Scheme before enrolment.

Experience of working with young people and up-to-date knowledge and understanding of secondary education in Scotland will aid progression to Year 3.

Other Required Qualifications/Experience

Year 1: Irish Leaving Certificate: BBBC including Mathematics and Physics or International Baccalaureate (IB) Diploma: 24 points (4, 4 at Higher level)

Year 2: SQA HNC (Grade A)/BTEC Level 4 HNC: Physics, Applied Sciences or a relevant discipline, BTEC Extended Diploma: DDM, Scottish Baccalaureate in Science: Advanced entry to Year 2 will be dependent on subjects studied and grade of award or International Baccalaureate (IB) Diploma: 28 point (4, 4 at Higher level)

Year 3: SQA HND (Grade B)/BTEC Level 5 HND/Foundation Degree: Physics, Applied Sciences or a relevant discipline

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

Before progressing to Year 3, students must have attained a qualification in English at SCQF Level 6 (e.g. Higher). Furthermore, students must successfully undertake an interview conducted by Education staff.

Students who are offered the opportunity to progress to Year 3 of this programme must apply for and obtain membership of the Protection of Vulnerable Groups Scheme before enrolment.

Experience of working with young people and up-to-date knowledge and understanding of secondary education in Scotland will aid progression to Year 3.

Further desirable skills pre-application

Experience of working with young people and up-to-date knowledge and understanding of secondary education in Scotland will aid progression to Year 3 of this programme.

General Overview

The BSc (Hons) Physics with Education programme is designed to fulfil the requirements of the QAA subject benchmark statement for Physics (2017), the Institute of Physics Core of Physics (2011), the Guidelines for Initial Teacher Education Programmes in Scotland (GTCS, 2013), the benchmark statement for Standard for Provisional Registration (GTCS, 2012) and the QAA subject benchmark statement for Education Studies (2007).

The overall aim of the programme is to develop individuals with a range of transferable graduate skills who will acquire Honours-level knowledge and skills in Physics alongside attaining the Standard for Provisional Registration, and thus be eligible to apply for provisional registration with GTCS and entry to the Teacher Induction Scheme as a secondary school teacher of Physics with Science.

The programme teaches the fundamentals of physics as a core science and practical classes will enhance students' understanding of the principles and techniques of experimental physics. In the first two years, the programme includes intensive study of the core principles of physics: translational, rotational and vector mechanics; heat; electricity and magnetism; waves mechanics; and optics and electronics. In addition, relevant modules in mathematics are core to the programme. The third and fourth years of the programme involve study of physics topics that have dominated understanding of science phenomena in the twentieth century: atomic, nuclear, particle and quantum physics and special relativity, solid-state physics, electromagnetism and thermodynamics. The depth of knowledge across a broad range of physics topics supports the teaching of senior phase courses up to Advanced Higher level.

In Years 1 and 2, students will take our two modules as part of our ASPIRE programme, preparing students with the metaskills and knowledge that are needed for success at university and beyond.

The study of Education is introduced in year three with a focus on key educational issues, cross-cutting curricular themes, contexts for learning and professional values. Knowledge and understanding of curriculum, pedagogy and assessment of Physics and General Science, and the skills and abilities to implement effective teaching and learning, are developed in year four, through campus teaching and school experience placements.
In accordance with the relevant GTCS and QAA benchmarks, graduates will have demonstrated the attributes, knowledge and skills encompassed by the following core areas:

- **Professional Values and Personal Commitment**

The core values defined as Social Justice, Integrity, Trust and Respect, and Personal Commitment, which are integral to, and demonstrated through, all professional relationships and practices.

- **Professional Knowledge and Understanding**
  The knowledge and understanding of Physics and General Science within the secondary curriculum, including contexts for learning to fulfil their responsibilities in literacy, numeracy, health and wellbeing and interdisciplinary learning; the principal features of the education system and their own professional responsibilities within the learning communities in which they will teach; relevant educational principles and pedagogical theories; and the importance of research in informing professional practice.

- **Professional Skills and Abilities**
  The ability to design, deliver and assess effective, appropriate and stimulating programmes of work in Physics and General Science within the secondary curriculum that are suitable for children at different stages of secondary education; and to use reading, research and feedback from a range of sources to inform effective self-evaluation and maintain a record of professional learning and development culminating in an Initial Professional Development Action Plan.

The programme will encourage the student to engage in lifelong learning, study and enquiry and to appreciate the value of education to society. It will also assist the student to develop the skills required for both autonomous practice and team-working.

Opportunities for further study

The Standard for Provisional Registration is part of a suite of professional standards published by GTCS (2012). Individuals obtaining Provisional Registration aim to progress to Full Registration and are then expected to continue to develop their expertise through 'appropriate and sustained career long professional learning' (GTCS, 2012). The suite of professional standards may be used to guide this learning and includes, for example, the Standards for Leadership and Management. Non-award-bearing courses have always formed an important part of professional development and update for teachers, but many opportunities exist at Masters level and above in subjects and areas relevant to schools and the wider world of education. Honours graduates may also choose to pursue further study of physics through masters or PhD programmes at this or other universities.

Teaching, learning, and assessment

Lectures, tutorials, workshops, laboratory classes and use of the VLE, employing a range of learning and teaching methodologies including group work, investigations, problem-based learning, concept visualization (e.g. using drawing and collage), walking, student presentations, online tutor/student-led discussions, and resources such as subject-specific equipment, interactive whiteboards, laptops and the outdoors, will be used, as appropriate, to develop student learning. In order to enable students from the BSc (Hons) Physics with Education, BSc (Hons) Chemistry with Education, BSc (Hons) Mathematics with Education, PGDE (Secondary) and PGDE (Primary) programmes to benefit from working together, the School & Professional Studies (L9) module will be delivered through a blended approach using the Moodle VLE and some face-to-face lectures, tutorials and workshops. Within the Moodle VLE, students will make use of e-learning methods such as remotely accessing set and extension readings and other course materials, and online and asynchronous communication with peers, and supported by tutors, to address problem-based learning tasks. Students are required to undertake significant independent learning in each module. Student handbooks and other material made available to students will give more detailed information on the particular learning and teaching methodologies, and combinations of these methodologies, to be used for timetabled student sessions. This will clarify for students both their expectations for timetabled sessions, and their expectations for the overall balance of learning and teaching methodologies to be used during the programme.
On-going formative assessment across the programme will provide feedback to students on their developing thinking on subject knowledge and skills, educational issues and professional abilities. Summative assessment of academic study will take the form of essays, project reports, laboratory reports, oral presentations, problem sheets and examinations. Assessment of school experience is outlined under Work Based Learning/Placement Details.

Typical Delivery Method

Formal lectures will be supported by a range of blended-learning activities such as small group tutorials, workshops, laboratory classes and use of the University VLE. These activities will employ a range of learning and teaching methodologies including group work, investigations, problem-based learning, concept visualisation (e.g. using drawing and collage), student presentations and online tutor/student-led discussions. Resources such as industry-standard software packages will be used to develop student learning.

In order to enable students undertaking BSc (Hons) Physics with Education, BSc (Hons) Chemistry with Education, BSc (Hons) Mathematics with Education, PGDE (Secondary) and PGDE (Primary) programmes to benefit from working together, the School & Professional Studies (L9) module will be delivered through a blended approach using the University VLE and some face-to-face lectures, tutorials and workshops.

Within the University VLE, students will experience a range of e-learning methods. They will be required to remotely access set and extension readings and other course materials, and communicate both online and asynchronously with peers, whilst being supported by tutors, to address problem-based learning tasks. Students are required to undertake significant independent learning in each module.

Student handbooks and other material made available to students will give more detailed information on the particular learning and teaching methodologies, and combinations of these methodologies, to be used for timetabled student sessions. This will clarify for students both their expectations for timetabled sessions, and their expectations for the overall balance of learning and teaching methodologies to be used during the programme. Ongoing formative assessment across the programme will provide feedback to students on their developing thinking on subject knowledge and skills, educational issues and professional abilities. Summative assessment of academic study will take the form of class tests, written and numerical assignments, essays, project reports, oral presentations, problem sheets and examinations. Assessment of school experience is outlined under Work Based Learning/Placement Details.

Any additional costs

Optional costs for the purchase of books/printed materials and/or computing hardware facilities. Travel costs for school placements will also be required.

Graduate Attributes, Employability & Personal Development Planning

The programme is designed to develop students' range of skills and attributes that are transferable to other areas of study and professional employment, including the following.

demonstrating high levels of technological expertise geared towards problem-solving and project progress;

knowing how to access and apply relevant research findings;

practicing in a range of professional contexts, which include a degree of unpredictability;

communicating effectively, both orally and in writing, with a range of audiences;

engaging in professional dialogue with peers and senior colleagues;

constructing and sustaining reasoned and coherent arguments about professional practices;

undertaking critical analysis, evaluation and synthesis of ideas, concepts, information and issues;

justifying personal opinions by referring to appropriate evidence from a range of sources;

reflecting on and acting to improve the effectiveness of their own practice;

adopting an enquiring approach to professional practice, demonstrating some originality and creativity in finding solutions to professional issues;

exercising autonomy and initiative in professional activities;

working with others and, at times, taking a leading role;

and dealing with complex ethical and professional issues in accordance with current professional and/or ethical codes of practice.

Personal Development Planning (PDP) is central to the programme, which aims to develop in every student the professional qualities and capabilities of a reflective practitioner. From Level 7 to 9, exercises used for PDP/transferable skills development will be drawn from core module provision, to ensure that there is a strong link between PDP and the curriculum. In all aspects of PDP, the emphasis will be on students taking personal responsibility for their PDP portfolio, with support from staff as appropriate to each level.

At Level 10, while the PDP process is formally embedded within the Secondary School Experience module and is linked to target setting and evaluation on placement, students will also be encouraged to reflect on personal and professional learning in academic work and its impact on developing practice and progress towards achievement of the Standard for Provisional Registration. The PDP process will culminate in the production of an Initial Professional Development Action Plan.

Upon graduation and provisional registration with the GTCS, graduates are eligible for entry to the Teacher Induction Scheme. This scheme is administered by the GTCS, in partnership with the Scottish Learning Directorate, and provides a guaranteed one-year probationary post to every eligible student.

Graduate Attributes

We have defined a set of graduate attributes that are the skills, personal qualities and understanding to be developed through your university experience that will prepare for life and work in the 21st century (https://www.uws.ac.uk/current-students/your-graduate-attributes/).

The graduate attributes relevant to this programme are listed below.

Academic: critical thinker; analytical; inquiring; knowledgeable; digitally literate; problem solver; autonomous; incisive; innovative

Personal: effective communicator; influential; motivated

Professional: collaborative; research-minded; enterprising; ambitious; driven

Work Based Learning/Placement Details

In compliance with the requirements of the GTCS, a total of eighteen weeks, or ninety days, is devoted to school experience, occurring in each school term, with a block of at least four weeks taking place towards the end of the programme, in secondary school environments. During Level 9, students will undertake ten serial days on observation placement in order to establish links between theory and practice. Student handbooks and other very detailed materials made available to students will set out the requirements and expectations of the two-week observation placement and three more substantial periods of school experience,

including the maintenance of the teaching portfolio. During each placement, students will monitor their progress through target- setting and evaluation in a personal development plan. Following formative assessment of the first substantial period of school experience, the two subsequent placements will be assessed summatively by the partner school and the visiting University tutor.

In addition to written feedback, students will receive "Satisfactory" or "Unsatisfactory" grades for each of the eight benchmark areas of the Standard for Provisional Registration. Assessment of the module is on a Pass/Fail basis, dependent upon satisfactory or unsatisfactory performance in school. The overall assessment of Pass or Fail is achieved by totalling the grades awarded by the partner school and those awarded by the University tutor.

In accordance with both module and programme handbooks, any student whose attendance has fallen below the 75% minimum requirement for Secondary STEM Subject Studies and Secondary School Experience, during any of the three blocks of campus study preceding the periods of school experience, is therefore deemed to be unprepared for a period of school experience. Such students will normally be required to undertake a period of further on-campus preparation when other students are on placement. This process assures placement partners that students are appropriately prepared to undertake periods of school experience. UWS Regulation 1.64 also applies to periods of school experience, and it should be noted that any student whose attendance has fallen below the 75% minimum requirement may be deemed not to have met the professional requirements of the programme as accredited by the GTCS and, therefore, may not be eligible for assessment on that placement. In either case, the required school experience placement would normally be completed in the August/September diet following that academic year of study.

Attendance and Engagement

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus 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 programme, academic engagement equates to the following:

In accordance with both module and programme handbooks, any student whose attendance has fallen below the 75% minimum requirement for Secondary STEM Subject Studies and Secondary School Experience, during any of the three blocks of campus study preceding the periods of school experience, is therefore deemed to be unprepared for a period of school experience.

UWS Regulation 1.64 also applies to periods of school experience, and it should be noted that any student whose attendance has fallen below the 75% minimum requirement may be deemed not to have met the professional requirements of the programme as accredited by the GTCS and, therefore, may not be eligible for assessment on that placement.

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.

The programme is appropriate for all students irrespective of age, disability, gender and gender identity, race, ethnicity, religion or belief, or sexual orientation. To promote inclusive practice, procedures and processes have been subject to Equality Impact Assessment where appropriate.

In line with the Equality Act 2010 and UWS Equality and Diversity Commitments, the School of Computing, Engineering & Physical Sciences encourages the disclosure of support requirements, including disability, at the recruitment stage and throughout the duration of the programme. Emphasis is placed on confidentiality of information, the benefits of disclosure, and that no detriment to progress will be experienced. The School will endeavour to make reasonable adjustments to teaching and learning approaches and arrangements for assessment, including in laboratory environments, where a student has disclosed specific requirements.

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 general knowledge of the physics topics covered (mechanics, electromagnetism, waves, heat, gravitation, and core maths).
A2	To apply knowledge and understanding to solve relevant numerical and non-numerical problems.
A3	Record simple experimental procedures in individual work.
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Use the skills of observation, recording of measurements and problem solving in both theoretical and practical situations.
B2	Use skills to plan and perform small scientific projects in the laboratory.
B3	Use some of the basic and routine professional skills, techniques and practices.
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Use a range of forms of communication, both spoken and written.
C2	Use graphical and numerical skills in combination.
C3	Be able to summarise and present scientific individual work effort for critical peer evaluation.
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Use a range of approaches to address problems in a routine context within physics.
D2	Critical analysis of obtained experimental data.
D3	Present and evaluate arguments, information and ideas in physics.
D4	Use a range of numerical and graphical skills in combination.
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise initiative and independence in practical situations.

E2	Work in partnership with others in practical classes, taking account of each other's roles and responsibilities.
E3	Work with others in support of current professional practise under tutorial guidance.
E4	
E5	

Level 7 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
7	PHYS07006	Introductory Physics A		☒	☐	☐	
7	MATH070011	Applied Mathematics		☒	☐	☐	
7	APPD07001	ASPIRE		☒	☐	☐	
7	PHYS07007	Introductory Physics B		☐	☒	☐	
7	MATH07009	Single Variable Calculus		☐	☒	☐	
7	MATH07008	Python Fundamentals		☐	☒	☐	
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

Progression to level SCQF 8 is available to students who fulfil the university progression requirements and who have obtained at least a C pass in each of the core modules at SCQF 7.

A student may exit with a Cert HE Science with,
(a) a minimum of 120 credit points achieved at Level 7 or above and,
(b) at least 80 credit points are achieved from any (PHYS/MATH/CHEM) modules.

SCQF LEVEL 8 Learning Outcomes	
Knowledge and Understanding	
A1	Demonstrate a broad knowledge of physics at the appropriate level, with detailed knowledge in some areas.
A2	Demonstrate understanding of a limited range of core theories, principles and concepts.
A3	
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Carry out routine investigations in a lab situation.
B2	Adapt routine practices within accepted standards.
B3	
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Convey complex information on a topic to an audience.
C2	Use a range of applications to obtain, process and interpret data.
C3	
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Understanding core issues of depicted physics problems.
D2	Solving of smaller scale theoretical and hand-on laboratory work problems.
D3	
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Work in close partnership with peers on problems.
E2	
E3	
E4	
E5	

Level 8 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
8	PHYS08007	Classical Mechanics	20	☒	☐	☐	
8	PHYS08002	Optics and Electronics	20	☒	☐	☐	
8	PHYS08006	Mathematics for Physics	20	☒	☐	☐	
8	PHYS08004	Properties of Matter	20	☐	☒	☐	
8	PHYS08009	Modern Physics	20	☐	☒	☐	
8	APPD08001	ASPIRE 2	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

Progression to SCQF Level 9 is available to students who fulfil the university progression requirements and the GTCS requirements for entry to programmes of initial teacher education, i.e. SCQF Level 6 English and SCQF Level 5 Mathematics. Progression is also dependent on a successful interview with Education staff.

In line with the Regulatory Framework, for the award of Dip HE in Mathematics, at least 240 credit points must be achieved of which a minimum of 100 are at SCQF Level 8 and none less than SCQF Level 7.

A student may exit with a Dip HE Physical Sciences, with the following a minimum of 240 credits, where at least 100 credit points are achieved at Level 8 or above, and at least 80 credits are achieved from any CHEM/FORS/MATH/PHYS modules at Level 7 and Level 8.

A student failing to meet the GTCS entry requirements or being unsuccessful at interview may transfer to the BSc (Hons) Physics or Physics with Nuclear Technology programmes.

Distinction will be awarded in line with University Regulations and no imported credit can be used. (Regulations 3.35 & 3.26)

SCQF LEVEL 9 Learning Outcomes (Maximum of 5 per heading)	
Knowledge and Understanding	
A1	Demonstrate a broad and integrated knowledge and understanding of the main areas of physics (quantum mechanics, electromagnetism, atomic, nuclear and particle physics).
A2	Demonstrate a critical evaluation of modern-day physics knowledge.
A3	
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Practise routine methods of enquiry in a lab setting, including topics with a degree of unpredictability.
B2	Use information retrieval system present at the university for further reading and understanding of modern day physics concepts.
B3	Discuss outcomes in detail with peers and supervisors.
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Write formal reports which include elements of interpretation and evaluation of numerical data.
C2	Be able to make a formal presentation on a topic as a member of a group.
C3	Be able to lead own project.
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Undertake critical analysis; evaluate information and synthesise ideas.
D2	Benchmark own findings with standard results as depicted in modern-day physics.
D3	Critical evaluate sources of uncertainties and limits of modern day physics understanding.
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise autonomy and initiative in practical classes and in intermediate problem solving exercises.
E2	Work with others in a group to produce a presentation of intermediate level.
E3	
E4	
E5	

Level 9 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
9	PHYS0908	Quantum Mechanics	20	☒	☐	☐	
9	PHYS09012	Mathematics for Physics 2	20	☒	☐	☐	
9	PHYS09003	Electromagnetism	20	☐	☒	☐	
9	PHYS09013	Atoms, Nuclei, and Particles	20	☐	☒	☐	
9	EDUC09048	School and Professional Studies (L9)	40	☒	☒	☐	
				☐	☐	☐	
Footnotes for Core Modules							

Level 9 Modules

OPTION

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

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

Progression to level SCQF 10 is available to students who fulfil the university progression requirements and who have obtained at least a C pass in each of the core modules at SCQF 9.

A student may exit with a BSc Physics with Education Studies, with a minimum of 360 credit points. The School Board of Examiners will award distinction to candidates for undergraduate awards other than Honours degrees where a mean mark of 70% or above is achieved by candidates at their first attempt.

SCQF LEVEL 10 Learning Outcomes (Maximum of 5 per heading)	
Knowledge and Understanding	
A1	Demonstrate integrated knowledge and critical understanding of a broad range of facts, concepts, principles and theories relating to advanced topics in experimental and theoretical physics and to secondary education.
A2	Demonstrate detailed knowledge and understanding of a subject area within the secondary curriculum, current educational issues and effective approaches to teaching and learning, including the ways in which they are developed using established techniques of professional enquiry.
A3	Demonstrate knowledge of how to access and apply relevant findings from educational research.
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Use a range of skills and practices associated with advanced topics in experimental and theoretical physics.
B2	Design, deliver and assess effective, appropriate and stimulating programmes of work, in a subject area within the secondary curriculum, which are suitable for children at different stages of secondary education, using the results of assessment to evaluate and improve teaching.
B3	Use skills, practices and materials which are specialised, advanced or at the forefront of classroom practice in a variety of settings, environments and circumstances, which include a degree of unpredictability and specialism, and maintain a safe, caring and purposeful learning environment within these contexts.
B4	Execute a defined project of professional enquiry related to teaching and learning in secondary school of challenging concepts in physics.
B5	
Communication, ICT and Numeracy Skills	
C1	Communicate effectively, using a variety of media including digital technologies, to promote and develop positive relationships, and to stimulate pupils and achieve the objectives of lessons

C2	Communicate effectively and engage in professional dialogue with peers, university staff and school colleagues
C3	Communicate and report effectively, both orally and in writing
C4	Construct and sustain reasoned and coherent arguments about educational matters and professional practices
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Undertake critical analysis, evaluation and synthesis of complex ideas, concepts, information and issues in physics-related and educational contexts
D2	Justify a personal stance on physics-related and educational issues by referring to appropriate evidence from a range of sources
D3	Reflect on and act to improve the effectiveness of their own practice and contribute to the processes of curriculum development, school development planning and meeting the educational needs of school communities
D4	Adopt an enquiring approach to professional practice, demonstrating some originality and creativity in finding solutions to professional issues
D5	Develop record of personal professional learning and development into an Initial Professional Development Action Plan
Autonomy, Accountability and Working with Others	
E1	Exercise autonomy and initiative in academic and professional activities including managing time and prioritising workloads.
E2	Work effectively under guidance in a peer relationship with qualified practitioners and other agencies and individuals.
E3	Work effectively with others and, at times, take a leading role in bringing about change, development and new thinking relating to an aspect of physics or secondary education.
E4	Deal with complex ethical and professional issues in accordance with current professional and/or ethical codes of practice and in accordance with the needs of schools and wider communities.
E5	Demonstrate achievement of all aspects of the Standard for Provisional Registration.

Level 10 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
10	PHYS10014	Statistical Physics and Thermodynamics		☒	☐	☐	
10	PHYS1009	Solid State Physics		☐	☒	☐	
10	EDUC10049	Secondary School Experience		☒	☒	☐	
10	EDUC10050	Secondary STEM Subject Studies		☒	☒	☐	
				☐	☐	☐	
				☐	☐	☐	

Footnotes for Core Modules

Students who do not pass Secondary School Experience on the second attempt may undertake STEM Work Based Learning, which offers an alternative form of assessment of school experience but will not enable provisional registration with the GTCS.

Level 10 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
10	EDUC10051	STEM Work Based Learning		☒	☒	☐	
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Footnotes for Option Modules

Level 10
Criteria for Award
Please refer to UWS Regulatory Framework for related regulations

Honours degrees are classified in accordance with the Institute of Physics (IOP) recommendation.
All credits from third year (Level 9) contribute 50% towards the final classification.
All graded credits from fourth year (Level 10) contribute 50% towards the final classification.

The standard university regulations for classification of honours degree awards are superseded by the above criteria.

Students who complete a minimum of 480 credit points, including Secondary School Experience, will exit with BSc (Hons) Physics with Education, enabling provisional registration with the GTCS.

Students who complete a minimum of 480 credit points, including STEM Work Based Learning, will exit with BSc (Hons) Physics with Education Studies, which will not enable provisional registration with the GTCS.

The BSc (Hons) Physics with Education programme is an example of a professional programme where a Progression and Awards Board has the power to terminate the programme progress of a student whose continuation on placement is judged to be unacceptably damaging to the interests of placement partners, i.e. schools and their pupils, during school experience. Student handbooks will provide further details. In such cases, students may exit with a BSc Physics, subject to discussion with the Programme Leader.

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
Moved to the new template and made several small corrections and amendments.	24/7/25	JFS