



Undergraduate Programme Specification

Session	2025/26	Last Modified	24/07/25
Named Award Title	BSc (Hons) Physics with Nuclear Technology 2023 Single		
Award Title for Each Award	BSc (Hons) Physics with Nuclear Technology (Sandwich) (2023) BSc Physics (Sandwich) Dip HE Science Cert HE Science		
Date of Approval	2024		
Details of Cohort Applies to	All students on the 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		Institute of Physics	
Maximum Period of Registration		6 Years Full-time, 8 Years Part-time	
Duration of Study			
Full-time	4 years	Part-time	8 years
Placement (compulsory)	N/A		
Mode of Study	<input checked="" type="checkbox"/> Full-time <input checked="" type="checkbox"/> Part-time		
Campus	<input type="checkbox"/> Ayr <input type="checkbox"/> Dumfries	<input type="checkbox"/> Lanarkshire <input type="checkbox"/> London <input checked="" type="checkbox"/> Paisley	<input type="checkbox"/> Online / Distance Learning <input type="checkbox"/> Other (specify)
School	Computing, Engineering and Physical Sciences		
Divisional Programme Board	Engineering 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:

BCCC at Higher including Physics and Mathematics, with English at Standard Grade

OR

BCCC at Higher including Mathematics at B grade and National 5 Physics at B grade, with English at Standard Grade

OR

CCD at Advanced Higher including Physics and Mathematics, with English at Standard Grade, for direct entry to Year 2

Or GCE

CC at A Level including Physics and Mathematics

OR

BCC at A Level including Physics and Mathematics for direct entry to Year 2

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.

Normally, suitably applicants with HNC will qualify for direct entry into the second year of the programme and applicants with HND will qualify for direct entry into the third year of the programme.

Other Required Qualifications/Experience

Year 1: UWS Level 6 Summer School Physics and Mathematics

Year 1: International Baccalaureate (IB) Diploma: 24 points (4, 4 at HL)

Year 2 direct entry: International Baccalaureate (IB) Diploma: 28 points

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

Further desirable skills pre-application

N/A.

General Overview

The BSc (Hons) Physics with Nuclear Technology (Sandwich) programme presents an opportunity for students to study the core elements of Physics together with specialist knowledge and training in the area of Nuclear Technology. Both Physics and Nuclear Technology are experimental subjects, dealing with fundamental concepts. Some of the modules on the programme are at interface of Physics and Nuclear Technology, incorporating the delivery of fundamental physics whilst being underpinned by our active research programmes in nuclear physics.

The distinct selection of modules meets the expectations of the QAA Subject Benchmarks for Physics as well as related criteria set out by the Institute of Physics. The Physics with Nuclear Technology programme is accredited by the Institute of Physics. The QAA document states: "Honours degrees should be awarded to students who have demonstrated: (1) A basic knowledge and understanding of physical laws and principles, and some application of these principles; (2) An ability to identify relevant principles and laws when dealing with problems; (3) The ability to execute and analyze the results of an experiment or investigation." This programme meets all of these criteria with a selection of modules that are not only benchmarked with modern topics in physics research and on industry demands.

In the first two years, the programme includes the study of the core principles of physics including mechanics, heat, electromagnetism, special relativity, waves, optics and electronics, and modern physics. In addition, relevant modules in mathematics are provided. The third and fourth years of the programme focus on nuclear technology as well as core physics. The physics topics covered include atomic, nuclear, and particle physics, quantum mechanics, solid-state physics, electromagnetism and thermodynamics. Modules relating to nuclear technology include a module devoted to Imaging and Nuclear Medicine in third year, and Principles and Applications of Nuclear Physics in fourth year.

In the final year of the programme, students normally carry out a project in the UWS Nuclear Physics Research Centre, or with a relevant project in one of the other UWS physics research groups. Alternatively students may carry out a placement in industry or a laboratory. In this research-related part of the programme, students will gain a high degree of independence throughout their studies. As such, all modules promote the evaluation of results and comparison with theoretical predictions or published data.

The delivery of the programme is carried out through traditional lectures and laboratories. Small size tutorial classes are used to unfold learning outcomes and engender staff/student discussions. After graduation, students will be able to pursue scientific careers in the form of master's or PhD qualifications. The student may start a career in the nuclear industry; this may be employment directly in the nuclear-power industry, or in one of the related sectors. Knowledge of physics with specialist knowledge in the areas of nuclear technology will allow graduates to gain a competitive edge in the current competitive job market, especially since a successful sandwich-placement will give the student valuable experience in the nuclear industry or a related sector.

Teaching and learning methods employed on this programme include lectures, tutorial and problem classes, laboratory classes, project work, textbooks, journals and online resources on a virtual learning environment. Assessment methods include examinations, coursework assignments, laboratory reports, oral presentations, and problem sheets. Students are required to undertake self-study and independent learning in each module and assessment is via a mixture of coursework, including practical laboratory work, and final examination.

All Physics staff practice an "open door policy" with regard to additional contact time for students. Tutorials are scheduled at all levels, embedded into modules, in order to encourage

student-staff interaction. A guideline to the content of the tutorials is presented below, level-by-level.

At Level 7 (first year) tutorials are focussed on core scientific problems and a general introduction of students into Higher Education. Development of PDP skills such as critical evaluation of scientific concepts, mathematical and scientific skills, time management and core concepts of e-learning are also important. An introduction to core university regulations (e.g. plagiarism) is also provided.

At Level 8 (second year) tutorials are focused on problem solving, literature review and scientific writing, including an introduction to e-learning facilities in the university and the internet, and a continuation of PDP skills.

At Level 9 (third year) tutorials will have a focus on advanced topics of modern physics, report writing and information retrieval using e-environment of university. Preparation for Honours project-work is implicit. Advice and discussion of possible placement options can be given at this stage. PDP skills continue to develop, for example a discussion of interview skills.

At Level 10, time can be scheduled for discussion of the project work. Contact time can be used for project one-to-one supervision and an introduction in specialist high-level aspects of PDP (e.g. career and small-finance planning).

The normal period of registration for the BSc(Hons) Physics with Nuclear Technology programme is four years. Students should refer to the UWS Regulatory Framework for regulations regarding duration of study and authorized interruptions of study.

Typical Delivery Method

Face-to-face lectures and tutorials as well as practical laboratory sessions.

Any additional costs

Optional costs for the purchase of books/printed materials and/or computing hardware facilities.

Graduate Attributes, Employability & Personal Development Planning

Employability skills can be summarised as a high level of technological expertise geared towards problem solving and project progress, numeracy, literacy, transferable skills with regard to computing, project leadership, teamwork and management of peers, dissemination of scientific results.

The employability skills and attributes which students will gain experience in developing, applying and reflecting upon during the degree programme are as follows.

- Cognitive Skills (attention to detail, analysis and judgement):
 - 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 judgements.
 - Demonstrate technical skills in mathematics and computer programming.

- 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 computational resources as appropriate to the subject.
 - Communication of the results of their own and other work accurately and reliably in a range of different contexts using specialist concepts, constructs and techniques of the subject.
 - 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 and 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.
 - Practise in ways which take account of own and others' roles and responsibilities.
 - Take some responsibility for the work of others and for a range of resources.
- Personal capabilities (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.
- Practical and professional elements (professional expertise, process operation and image):
 - Show familiarity and competence in the use of routine materials, practices and skills.
 - 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.

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 course 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

Students will have the opportunity for a one-year placement in industry or a research institution. Staff in Physics will initiate contacts with known providers of sandwich placements, where possible.

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 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 structure in which they operate. On successful completion of the placement, the student 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, the 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 student of physics 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 on a pass/fail basis and all assessment elements must be passed for progression as part of the sandwich programme. Assignments will be open to the External Examiner 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 working days) 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 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. Mitigating 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.

- Retaking of Placement: a repeat or alternative placement will only be considered on health or other mitigating 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 Subject and Programme Panel.
- The relevant Programme Panel will consider the performance of each sandwich placement student enrolled on that Programme and decide eligibility for reassessment, progression and awards in accordance with University Regulations, in particular Regulation 7.10.4
- A student who fails the sandwich placement after reassessment will not 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.

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:

The School of Computing, Engineering, and Physical Sciences has defined a minimum attendance threshold of 80%. Attendance below this level will incur intervention from the Student Success team.

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	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	MATH07011	Applied Mathematics	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	APPD07001	ASPIRE	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	PHYS07007	Introductory Physics B	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7	MATH07009	Single Variable Calculus	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7	MATH07008	Python Fundamentals	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Core Modules N/A.							

Level 7 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Option Modules							

Level 7

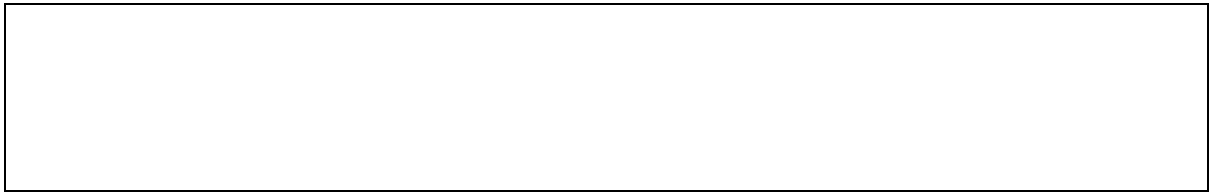
Criteria for Progression and Award

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

		Module Title	Credit	Term	Footnotes
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SCQF Level	Module Code			1	2	3	
8	PHYS08007	Classical Mechanics	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	PHYS08002	Optics and Electronics	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	PHYS08006	Mathematics for Physics	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	PHYS08004	Properties of Matter	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8	PHYS08009	Modern Physics	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8	APPD08001	ASPIRE 2	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Core Modules N/A.							

Level 8 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Option Modules							

Level 8

Criteria for Progression and Award

Please refer to [UWS Regulatory Framework](#) for related regulations

Progression to level SCQF 9 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 8.

A student may exit with a Dip HE Science with

- (a) minimum of 240 credit points where and
- (b) at least 100 credit points are achieved at Level 8 or above and
- (c) at least 80 credit points are achieved from any PHYS/MATH/CHEM modules at Level 7 and
- (d) at least 80 credit points are achieved from any PHYS/MATH/CHEM modules at Level 8.

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	PHYS09008	Quantum Mechanics		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	PHYS09012	Mathematics for Physics 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	PHYS09009	Imaging and Nuclear Medicine		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	PHYS09003	Electromagnetism		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9	PHYS09013	Atoms, Nuclei, and Particles		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9	PHYS09014	Radiation Detectors and Nuclear Lab Skills		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Core Modules							

Level 9 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Option Modules							

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. Students may, subject to availability, be able to undertake a sandwich placement for one academic year, before proceeding to SCQF level 10.

A student may exit with an award of BSc Physics, 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.

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SCQF LEVEL 10	
Learning Outcomes (Maximum of 5 per heading)	
Knowledge and Understanding	
A1	Demonstrate knowledge that integrates the principle topics in advanced physics at the required level (project, advanced topics in experimental and theoretical physics).
A2	Demonstrate a detailed knowledge and understanding of at least one specialism.
A3	
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Execute a defined project of research or investigation and identify relevant outcomes.
B2	Use a range of skills and practices associated with a specialist area of study.
B3	
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Make a formal presentation on a specialised topic to an informed audience.
C2	Be able to defend own project results under peer scrutiny.
C3	Be able to communicate with peers and senior colleagues.
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Be able to make judgements where data is limited, in a practical or theoretical situation.
D2	Critically identify, define and analyse complex physics problems and issues.
D3	
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise autonomy and initiative in practical classes and in advanced problem solving exercises.
E2	Work with others in a group to produce a presentation of advanced level.
E3	
E4	
E5	

Level 10 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
10	PHYS10003	Project and Professional Skills	40	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10	PHYS10014	Statistical Physics and Thermodynamics	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	PHYS10015	Principles of Nuclear Physics	20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	PHYS10012	Applications of Nuclear Physics	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10	PHYS10009	Solid State Physics	20	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Core Modules							

Level 10 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Footnotes for Option Modules							

Level 10

Criteria for Award

Please refer to [UWS Regulatory Framework](#) for related regulations

Students will exit with an award of BSc (Hons) Physics with Nuclear Technology with a minimum of 480 points. Students who have undertaken and passed the sandwich year will be entitled to the award of BSc (Hons) Physics with Nuclear Technology (Sandwich).

Honours degrees are classified in accordance with the Institute of Physics (IoP) recommendation as follows.

(a) All credits from third year (Level 9) contribute 50% towards the final classification.

(b) All credits from fourth year (Level 10) contribute 50% towards the final classification. Note that the module PHYS10003 Project and Professional Skills has a double weighting.

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

