Undergraduate Programme Specification

Session	2025/26	**Last Modified**	June 2025
Named Award Title	BSc (Hons) Chemistry with Education		
Award Title for Each Award	BSc (Hons) Chemistry with Education BSc Chemistry with Education Studies Dip HE Science Cert HE Science		
Date of Approval	June 2023		
Details of Cohort Applies to	All students joining or continuing into Levels 7, 8, 9 and 10 in 2025-26, except students who began the programme before September 2021		
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 (GTCS)	
Maximum Period of Registration		8 Years	
Duration of Study			
Full-time	4 Years	**Part-time**	
Placement (compulsory)			
Mode of Study	☒ Full-time ☒ Part-time		
Campus	☒ Ayr ☐ Dumfries	☐ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)
School	**Computing, Engineering and Physical Sciences**		
Divisional Programme Board	**Engineering Physical Sciences**		
Programme Leader	Dr Callum McHugh		

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: Scottish Highers:
- Standard Entry Requirements: BCCC (90 UCAS Tariff points) including Chemistry, plus English and Mathematics at National 5.
- Minimum Entry Requirements: CCCC (84 UCAS Tariff points) including Chemistry, plus English and Mathematics at National 5

Year 2: Advanced Highers:
- CCD (112 UCAS Tariff points) including Chemistry plus English and Mathematics and at least 1 science subject at National 5

Before progressing to Year 3, students must meet the following requirements.
1. English at SCQF Level 6 (e.g. Higher)
2. Mathematics at SCQF Level 5 (e.g. National 5, Standard Grade (Grade 1 or 2), Intermediate 2
3. Successful interview with School of Education.
4. 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 (PVG) scheme

Or GCE
Year 1: A-Level:
- CCD (88 UCAS Tariff Points) including Chemistry, plus English and Mathematics at GCSE level

Year 2: A-Level:
- BBC (112 UCAS Tariff points) including Chemistry, plus English and Mathematics at GCSE level

Before progressing to Year 3, students must meet the following requirements.
1. English at SCQF Level 6 (e.g. Higher)
2. Mathematics at SCQF Level 5 (e.g. National 5, Standard Grade (Grade 1 or 2), Intermediate 2
3. Successful interview with School of Education.

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 (PVG) scheme

Or SQA National Qualifications / Edexcel Foundation
Year 1:
- Access to Medicine; Access to Life Sciences; Access to Science with BBB including Chemistry

Year 2:
- HNC/BTEC Level 4 HNC: Chemistry; Applied Science or related subject
- BTEC Extended Diploma: DDM

Year 3:
- HND/BTEC Level 5 HND/Foundation Degree: Chemistry; Applied Chemical Science or related subject

Before progressing to Year 3, students must meet the following requirements.
1. English at SCQF Level 6 (e.g. Higher)

2. Mathematics at SCQF Level 5 (e.g. National 5, Standard Grade (Grade 1 or 2), Intermediate 2
3. Successful interview with School of Education.

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 (PVG) scheme

Other Required Qualifications/Experience

Year 1:

- Irish Leaving Certificate: H3H3H3H4 including Chemistry
- International Baccalaureate: 24 points including Chemistry

Year 2:

- International Baccalaureate: 28 points including Chemistry and 1 other science

Before progressing to Year 3, students must meet the following requirements.

1. English at SCQF Level 6 (e.g. Higher)
2. Mathematics at SCQF Level 5 (e.g. National 5, Standard Grade (Grade 1 or 2), Intermediate 2
3. Successful interview with School of Education.

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 (PVG) scheme

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) Chemistry with Education programme is designed to fulfil the requirements of the QAA subject benchmark statement for Chemistry (2022), 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 (2015).

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 Chemistry 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 Chemistry with Science.

The programme teaches the fundamentals of Chemistry as a core science and laboratory sessions develop practical and communication skills. Across the four years of the programme, increasingly complex understanding of principal aspects of chemistry – organic, inorganic, analytical and physical – is developed. Depth of knowledge across a broad range of topics supports the teaching of senior phase courses up to Advanced Higher level.

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 Chemistry 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 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 Chemistry 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 Chemistry 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 Chemistry through MSc or PhD programmes at this or other universities.

Typical Delivery Method

Teaching, learning and assessment:
Lectures, tutorials, workshops, and laboratory classes make use of the Aula VLE, employing a range of learning and teaching methodologies including group work, investigations, problem-based learning, concept visualisation (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. To enable students from the BSc (Hons) Chemistry with Education, BSc (Hons) Physics 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 Aula VLE and some face-to-face lectures, tutorials and workshops. Within the Aula 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, 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. Costs for personal protective equipment (PPE) and travel costs for school placements.

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: knowing how to access and apply relevant research findings; practising 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. At Level 7, transferable skills development is an important part of the core modules, ASPIRE and Scientific Investigation. The aim is to enable students to become familiar with reflective practice, and to identify and evaluate their own range of skills and aspirations. 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 learning, with support from staff as appropriate to each level.

The timetabled PDP sessions will be associated with the following core modules for the BSc (Hons) Chemistry with Education programme:

Level 7: Term 1:
- Structure of Chemistry
- ASPIRE

Level 7: Term 2:
- Chemistry and Reactions
- Scientific Investigation

Level 8: Term 1:
- Physical Chemistry 2
- Chemical Lab Techniques

Level 8: Term 2:
- Chemical Analysis & Evaluation
- ASPIRE

Level 9: Term 1:
- Inorganic Chemistry 3
- Physical Chemistry 3
- School and Professional Studies

Level 9: Term 2:
- School and Professional Studies
- Analytical Chemistry

Level 10: Terms 1&2:
- Secondary School Experience

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.

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. To assure placement partners that students are appropriately prepared to undertake periods of school experience, and in accordance with 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 (and who is therefore deemed to be unprepared for a period of school experience) will normally be required to undertake a period of further preparation (on campus) when other students are on placement. UWS Regulation 5.7 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 5.7 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.

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 chemical structures, reactions and equilibria
A2	Relate knowledge to chemical theories, concepts and principles
A3	Show an awareness of the evidence base for chemical science
A4	
A5	
Practice - Applied Knowledge and Understanding	
B1	Apply basic knowledge and skills in solving routine problems in chemistry
B2	Demonstrate the practice of basic laboratory skills
B3	
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Tackle a range of numerical and non-numerical problems in theoretical and practical situations
C2	Present information in a variety of forms relevant to the context
C3	Obtain information and data from standard sources
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Present and evaluate information and ideas in the handling of chemical issues
D2	Use a range of approaches to the solution of routine problems
D3	
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise some initiative in and take responsibility for defined activities
E2	Take supervision especially in unfamiliar laboratory situations
E3	Work with others in defined group exercises
E4	
E5	

Level 7 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
7	CHEM07003	Structure of Chemistry	20	☒	☐	☐	
7	APPD07001	ASPIRE	20	☒	☐	☐	
7	MATH07011	Applied Mathematics	20	☒	☐	☐	
7	CHEM07011	Chemistry and Reactions	20	☐	☒	☐	
7	CHEM07009	Scientific Investigation	20	☐	☒	☐	
				☐	☐	☐	
Footnotes for Core Modules							

Level 7 Modules

OPTION

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
		Appropriate Term 2 module from CHEM, MATH, PHYS or BIOL	20	☐	☒	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
Footnotes for Option Modules Appropriate Term 2 module worth 20 credit points from chemistry, mathematics, physics or biology modules (prefix CHEM, MATH, PHYS or BIOL)							

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

Rules for progression are as given in the university's regulatory framework.

A Certificate in Higher Education Science is available in accordance with University regulations. (At least 120 credits are required of which a minimum of 100 are at least SCQF level 7).

Progression to SCQF level 8 is subject to academic advice, to module prerequisites and to timetable constraints.

SCQF LEVEL 8 Learning Outcomes	
Knowledge and Understanding	
A1	Demonstrate a broad knowledge of main areas of chemistry
A2	Display an understanding of some major core theories and principles of chemistry
A3	Show some knowledge of major current issues
A4	Demonstrate specialist knowledge and understanding of the main scientific concepts that underpin topical science issues and the multiple perspectives that impinge on discussion of these issues
A5	
Practice - Applied Knowledge and Understanding	
B1	Use a range of routine skills, techniques and practices in chemistry, including some advanced aspects
B2	Carry out routine investigations into practical and theoretical issues
B3	Present information gained through research which demonstrates knowledge and understanding of topical science issues
B4	
B5	
Communication, ICT and Numeracy Skills	
C1	Use a range of standard applications and instrumentation to obtain and process data
C2	Apply and evaluate numerical and graphical procedures to laboratory and literature data
C3	Present information in numerical, graphical and verbal forms to a variety of audiences
C4	
C5	
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Undertake critical analysis, evaluation and synthesis of information related to the main ideas and concepts within the understanding and practice of chemistry and topical science issues
D2	Use a variety of approaches to develop solutions to defined problems in chemistry and topical science issues
D3	Display a critical evaluation of solutions and explanations of experimental information and chemical phenomena
D4	
D5	
Autonomy, Accountability and Working with Others	
E1	Exercise autonomy and initiative in defined professional activities
E2	Take responsibility for work planning and time management within specified contexts
E3	Co-operate in group working exercises
E4	Work under guidance on current professional practice and issues

E5	

Level 8 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
8	APPD08001	ASPIRE 2	20	☐	☒	☐	
8	CHEM08004	Chemical Analysis and Evaluation	20	☐	☒	☐	
8	CHEM08013	Chemical Laboratory Techniques	20	☒	☐	☐	
8	CHEM08003	Inorganic Chemistry 2	20	☐	☒	☐	
8	CHEM08002	Organic Chemistry 2	20	☒	☐	☐	
8	CHEM08001	Physical Chemistry 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

Rules for progression are as given in the university's regulatory framework.

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 School of Education staff.

A student failing to meet the GTCS entry requirements or being unsuccessful at interview may transfer to the BSc (Hons) Chemistry degree.

A student may exit with an award of Dip HE Science, with a minimum of 240 credit points

SCQF LEVEL 9 Learning Outcomes (Maximum of 5 per heading)	
Knowledge and Understanding	
A1	Demonstrate a broad and integrated knowledge and understanding of major aspects of chemistry and current educational issues
A2	Display a critical understanding of principal theories, principles, concepts and terminologies of chemistry and education, including curriculum design, contexts for learning and cross-curricular links
A3	Show a knowledge of specialisms informed by forefront developments in chemistry
A4	Demonstrate knowledge of current educational issues and effective approaches to teaching and learning informed by forefront developments
A5	Demonstrate knowledge of how to access and apply relevant findings from educational research
Practice - Applied Knowledge and Understanding	
B1	Use a selection of skills, techniques and practices in handling chemical concepts and experimental information
B2	Display skills in techniques, practices and information at a specialised level in chemistry
B3	Practise routine and more unpredictable investigations and enquiries in chemistry
B4	Consider how to use skills, practices and materials which are specialised or advanced in a variety of educational settings, environments and circumstances
B5	Consider how to practice in a range of professional contexts, which include a degree of unpredictability
Communication, ICT and Numeracy Skills	
C1	Use a selection of skills, techniques and practices in handling chemical concepts and experimental information
C2	Display skills in techniques, practices and information at a specialised level in chemistry, through practising routine and more unpredictable investigations and enquiries in chemistry
C3	Communicate effectively, using a variety of media including digital technologies, and engage in professional dialogue with peers and university staff
C4	Communicate and report effectively, both orally and in writing
C5	Constructing coherent arguments about educational matters and professional practices
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Undertake critical analysis, evaluation and synthesis of ideas, concepts, information and issues in chemistry and educational contexts
D2	Identify and analyse routine professional problems and issues in chemistry and educational contexts
D3	Draw on a range of sources in making judgments on matters relating to chemistry and educational issues
D4	
D5	

Autonomy, Accountability and Working with Others	
E1	Exercise autonomy and initiative in dealing with activities at a professional level in chemistry and educational contexts
E2	Take some responsibility for the work of others and for the use of resources
E3	Practise working in group exercises taking account of others' roles and responsibilities
E4	Develop awareness of own and others' roles and responsibilities in educational contexts
E5	Work under guidance with specialist practitioners on aspects of professional skills and ethical codes

Level 9 Modules

CORE

SCQF Level	Module Code	Module Title	Credit	Term			Footnotes
				1	2	3	
9	CHEM09002	Analytical Chemistry	20	☐	☒	☐	
9	CHEM09001	Inorganic Chemistry 3	20	☒	☐	☐	
9	CHEM09004	Organic Chemistry 3	20	☐	☒	☐	
9	CHEM09003	Physical Chemistry 3	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							

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

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

Progression to SCQF Level 10 is available to students who fulfil the university progression requirements.

A student may exit with a BSc Chemistry with Education Studies, with a minimum of 360 credit points.

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 main branches of chemistry 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	Show knowledge of modern specialist topics in major areas of chemistry, and awareness of significant issues at the frontiers of chemical research and development
A4	Demonstrate understanding of factors influencing the feasibility, kinetics and mechanisms of chemical reactions, familiarity with the principles and applications of a range of modern instrumentation in analysis and characterisation, and awareness of the importance of safe working practices and of risk assessment
A5	Demonstrate knowledge of how to access and apply relevant findings from chemistry and educational research
Practice - Applied Knowledge and Understanding	
B1	Exhibit practical skills in traditional and modern laboratory practice in synthetic and analytical work
B2	Display familiarity with computers for data handling and, when interfaced with instruments, for monitoring and evaluating properties, events and changes
B3	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
B4	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
B5	Execute a defined project of professional enquiry related to teaching and learning in secondary school of challenging concepts in chemistry
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	Utilise information management skills, including computer-based searches
C4	Communicate and report effectively, both orally and in writing
C5	Construct and sustain reasoned and coherent arguments about educational matters and professional practices
Generic Cognitive Skills - Problem Solving, Analysis, Evaluation	
D1	Undertake critical analysis, evaluation and synthesis of ideas, concepts, information and issues in chemistry-related and educational contexts
D2	Justify a personal stance on chemistry-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 chemistry 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	CHEM10003	Organic Chemistry 4	20	☒	☐	☐	
10	CHEM10004	Physical and Inorganic Chemistry 4	20	☐	☒	☐	
10	EDUC10049	Secondary School Experience	40	☒	☒	☐	
10	EDUC10050	Secondary STEM Subject Studies	40	☒	☒	☐	

				☐	☐	☐	
				☐	☐	☐	

Footnotes for Core Modules

Students who do not pass Secondary School Experience (EDUC10049) on the second attempt may undertake STEM Work Based Learning (EDUC10051), 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	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	
				☐	☐	☐	

Footnotes for Option Modules

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.

Students who complete a minimum of 480 credit points, including Secondary School Experience, will exit with BSc (Hons) Chemistry 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) Chemistry with Education Studies, which will not enable provisional registration with the GTCS.

The BSc (Hons) Chemistry 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 Chemistry.

No Distinction is awarded at Honours level (Regulation 3.25).

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.

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Change/Version Control

What	**When**	**Who**
Level 7 module MATH07011 Applied Mathematics 1 has had superfluous 1 removed from module title as there is no Applied Mathematics 2 currently running	25/07/25	C. J. McHugh
Added update about serial placements (changed from 2 week block to serial days at Level 9, one day per week for 2 5-week bocks)	25/07/25	C. J. McHugh