Programme Title and Name of Award	**Foundation Degree (FdSc) in Applied Chemistry**		
Professional Qualifications / Accreditation	The programme has been aligned with the QAA Subject Benchmark Statement for Chemistry. The programme has been designed to meet accreditation standards of the Royal Society of Chemistry which will be applied for within two years of full delivery. The programme has been designed to align with the Higher Apprenticeship Framework at the bequest of local employers and with a view to progression on to the Degree Apprenticeship at UoC.		
Academic Level	**Level 4 and 5**	**Total Credits**	**120/Level**
UCAS Code		**JACS Code**	**F110**
Criteria for Admission to the Programme	The University's standard criteria for admissions apply. Please refer to the Applicant Information pages of the University website for more information. For APL, please refer to the University website. Detailed criteria for admission to this programme can be found on the programme webpage: http://www.cumbria.ac.uk/Courses/Subjects/ScienceEngineering/Undergraduate/AppliedChemistryFdSc.aspx The following additional requirements apply for entry to this programme: Applicants with non-standard entry requirements must have a post-A level qualification in chemistry or in a subject containing a high proportion of chemistry; and GCSE's at a minimum of Grade C, or equivalent Level 2 qualifications, to include Maths, English and Science. We would welcome applications from candidates with the equivalent qualifications, or experience of working in the chemical industry, subject to interview.		
Teaching Institution	**Lakes College**		
Owning Department	Science, Natural Resources and Outdoor Studies (SNROS)		
Programme delivered in conjunction with	N/A		
Principal Mode of Delivery	Face to Face, Blended learning, Work-Based Learning		

Pattern of Delivery	Part Time 1 day per week, 3 - 5 years minimum Full time 2 days per week, over 2 years
Delivery Site(s)	Lakes College
Programme Length	Part time – 3 - 5 years Full time – 2 years
Higher Education Achievement Report (HEAR)	Upon successful completion of this programme, you may receive a Diploma Supplement/Higher Education Achievement Report (HEAR).
Exit Awards	You may be awarded one of the following Exit Awards if you fail to achieve the requirements of the full programme. Certificate (H.E.) in Applied Chemistry

Programme Features
You may be aware that by 2027 West Cumbria will be globally recognised as a leading nuclear, energy, environment and related technology business cluster, building on its nuclear assets and its technology and research strengths. Although nuclear is the main employer in the region, there are further internationally based companies producing food, medicines, coatings and polymers. Lakes College are proud to work in partnership with these employers to ensure there are education and training programmes which meet the needs of these employers and safeguard the future of these industries in the local area. The Applied Chemistry programme has been developed in partnership with employers. There are exciting opportunities for young applied chemistry graduates ahead. The current changes in the nuclear sector, from immediate opportunities in the £300 billion global decommissioning market to longer term solutions for waste and new build, provide West Cumbrian business and people with the opportunity to transform economic performance, if the skills and techniques can be attracted and developed to enable them to engage in new markets successfully. West Cumbria is the UK's most important location for nuclear and related advanced engineering, with around a third of the UK's civil nuclear sector. The nuclear industry provides around 40% of West Cumbria's Gross Value Added (GVA). The Sellafield site accounts for over 12,000 direct jobs, There are also 2,630 indirect jobs with the combined total accounting for 22% of West Cumbria's workforce and 47% of Copeland's. If research and technology is where you think your future might lie, then you are well placed as West Cumbria is home to a major concentration of research skills and facilities in nuclear and related technologies, with strong and growing potential for commercialisation into new markets. The National Nuclear Laboratory Central Laboratory employs some 300 engineers and scientists. Westlakes Science Park provides a significant centre for knowledge transfer and innovation in existing and spin-off markets through the proximity of the knowledge base, research and supply chain partners. Decommissioning Expertise as well as resulting in the loss of existing jobs, the UK's £80bn decommissioning programme will require new skills and techniques. Local manufacturing companies such as Innovia Film are responding to new markets and environmental constraints balancing sustainability with whilst maintaining the functional properties and wide range of end-of-life options for

their products.

If you are interested in being part of these exciting developments you may need to build upon your current skills and knowledge of applied chemistry by further studies on a full or part time basis and becoming part of an apprenticeship programme. In recognition of this we have provided a clear progression route starting with a Foundation Degree in Applied Chemistry. The Foundation Degree was suggested at a meeting of local employers, (Sellafield, NNL, Cavendish, Innovia and James Walker), Lakes College and the University of Cumbria. The meeting was held to discuss building upon the College's existing provision to recruit further learners and to meet the expanding work force requirements in the local area, together with the replacement demand as current staff retire or leave. There is a need perceived between the employers that the expansion of the Energy Coast power generation and the building of a National College for Nuclear on the Lakes College site, will require the development of the analytical and chemistry skills of the local workforce through Higher and Degree Apprenticeship programmes.

Subsequently, through collaboration between the employers, Lakes College and UoC, the experience of delivering HNC and HND applied Chemistry at the College has been applied to creating a Foundation Degree, covering Levels 4 and 5. The course has been specifically designed to meet the needs of local employers and join seamlessly to level 6, allowing you to progress to an honours degree at UoC.

In terms of apprenticeships, the Foundation Degree will be mapped against the Higher Apprenticeship framework, giving you the opportunity to work and study for a Level 5 qualification at the same time. If you decide to progress to the top-up degree at UoC, you could progress to the Degree Apprenticeship and gain accreditation through the Royal Society of Chemistry.

The various modules you will study on the Foundation Degree have been agreed by the employers and providers through discussion in employers meetings held at Lakes College. The modules are designed to offer you the exciting challenge of exploring this science through experiment and theory. In addition they offer you the breadth and depth required to allow you to progress to the modules offered at Level 6. At the higher level there are further opportunities to study at the interfaces with other sciences and disciplines through optional modules.

By studying the Foundation Degree in Applied Chemistry you will have the opportunity to develop systematic and coherent knowledge and skills in different branches of Chemistry – nuclear, polymer, environmental and medicinal. A substantial amount of laboratory based experiential learning is provided alongside small group lectures and tutorials. The programme team seek to utilise industry speakers, guest lectures and site visits to enhance the programme content.

Aims of the Programme

The overall aims of the Programme are:

Aim

1. To instil in students an enthusiasm for applied chemistry and involve them in an intellectually stimulating experience of learning.
2. To develop an understanding of the inter-disciplinary approach to science and technology and

appreciation of applied chemistry in an industrial, academic, economic and social context.

3. To develop critical awareness of advances at the forefront of applied chemistry and provide students with the ability to plan and conduct experiments independently.
4. To develop the ability to apply standard methodology to solve chemistry problems in work environments.
5. To provide students with a knowledge and skills base from which they can seek progression in employment or postgraduate study.
6. Develop an in depth awareness of safe working practices, health and safety and legislation.

Level Descriptors

Level Descriptors describe in general terms the expected outcomes you will achieve at each level of study as you progress through your programmes. They describe the relative demand, complexity, depth of learning and learner autonomy associated with a particular level of learning and achievement. The University's Level Descriptors are aligned to the national Framework for Higher Education Qualifications (FHEQ) and are a key mechanism for ensuring the academic standards of the University's provision.

At Level 4: (Usually Year 1 undergraduate), you will be able to demonstrate that you have the ability:

- To apply a systematic approach to the acquisition of knowledge, underpinning concepts and principles and deploy a range of subject specific, cognitive and transferable skills.
- Evaluate the appropriateness of different approaches to solving well defined problems and communicate outcomes in a structured and clear manner.
- Identify and discuss the relationship between personal and work place experience and findings from books and journals and other data drawn from the field of study.

At Level 5: (Usually Year 2 undergraduate), you will be able to demonstrate that you have the ability:

- To apply and evaluate key concepts and theories within and outside the context in which they were first studied.
- Select appropriately from and deploy a range of subject-specific, cognitive and transferable skills and problem solving strategies to problems in the field of study and in the generation of ideas effectively communicate information and arguments in a variety of forms.
- Accept responsibility for determining and achieving personal outcomes.
- Reflect on personal and work place experience in the light of recent scholarship and current statutory regulations.

Programme Outcomes – Knowledge and Understanding

The programme provides opportunities for you to develop and demonstrate the following:

K1 An understanding of safe working practice, in terms of managing chemical toxicity, chemical stability and chemical reactivity, through knowledge-based risk assessments.

K2 Theoretical knowledge of analytical techniques which assess the structure and enable identification of various materials.

K3 Knowledge in the methods of acquiring, interpreting and analysing information with an understanding of the appropriate contexts for their use through the study of texts, papers, reports and data sets; and their application to research projects.

K4 Knowledge of key practices and theories relevant to specific topics in applied chemistry and industrial processes.

K5 An appreciation of the complex relationships which affect the structure, composition and behaviour of materials.

K6 A knowledge of Health and Safety regulations, legislation an impact on the environment.

Programme Outcomes – Skills and other Attributes (including Employability Skills)

The programme provides opportunities for you to develop and demonstrate the following:

S1. Discipline and subject specific skills associated with good laboratory practice including the safe handling of specimens and chemical products to conduct experiments and analysis in a safe manner based upon appropriate risk assessments.

S2. Proficient use of laboratory instrumentation in conducting laboratory procedures taking into account such factors as: accuracy, calibration, precision, standards, replicability and accurate data handling.

S3. The ability to address problems clearly, identify key issues, design, plan and conduct experimental procedures to solve qualitative and quantitative problems and highlight uncertainty when applicable.

S4. Recognise and apply subject-specific theories, concepts or principles and demonstrate competence in synthesis, analysis and evaluation

S5. Effective communication and team working in order to interact positively within groups and teams, applying different strategies in order to perform different roles within problem solving scenarios.

S6. Comprehensive skills in monitoring, by observation and measurement, chemical properties, events or changes, and the systematic and reliable recording and documentation thereof.

S7. Effective communication skills (both oral and written); including the ability to use technical language correctly, present complex concepts and information in a clear and concise manner and interact and communicate effectively to a variety of audiences.

S8. Personal development skills, including the ability to identify and reflect on where further training or skills acquisition is necessary for self-improvement (working independently, time management, organisational skills, enterprise and knowledge transfer) and progression towards professional accreditation such as Royal Society of Chemistry membership.

External and Internal Reference Points

The following Subject Benchmark Statements and other external and internal reference points have been used to inform the Programme Outcomes:

The Royal Society of Chemistry, http://www.rsc.org/Education/courses-and-careers/accredited-courses/bsc-accreditation.asp

QAA Subject Benchmark Statement (2014) Chemistry;
http://www.qaa.ac.uk/en/Publications/Documents/SBS-consultation-chemistry.pdf

Higher Apprenticeships

https://www.gov.uk/government/publications/higher-and-degree-apprenticeships

Internal drivers having informed the development include:-

Lakes College

- Higher Education Strategy**:** 2015 –2018
- Teaching, Learning & Assessment Strategy: 2014 –2017
- Curriculum Design Strategy**:** 2014 –2017
- Growth Strategy**:** 2014 –2017

University of Cumbria

- University Academic Strategy 2014-20;
- Departmental Business Plan for Science, Natural Resources and Outdoor Studies;
- Departmental response to Learning, Teaching and Assessment Strategy 2014-17
- Input from employers and professionals working in the field to support the programme

Teaching, Learning and Assessment Strategies employed to enable the Programme Outcomes to be Achieved and Demonstrated

The programme of teaching and learning is designed to enable you to demonstrate the attainment of the stated learning outcomes of the programme and assessment strategies are as such matched to these outcomes. You will be supported in a progressive acquisition of subject knowledge and skills, gradually advancing towards more independent learning whilst developing a reflective approach to personal progress.

Overarching considerations are the demonstrable acquisition by you of a clear appreciation of the scientific approach, and of the knowledge, skills and capacities needed for employment or further study. Above all, learning, teaching and assessment are designed to engage you in experiences that are enriching, enjoyable and intellectually stimulating.

Our Teaching, Learning and Assessment Strategy (2014 – 2015) has been developed in line with the

University's Learning, Teaching and Assessment Strategy 2014-17. Encapsulated within the first aim of the programme is a drive to engage all students in learning experiences that are enriching, enjoyable and intellectually stimulating. All modules therefore include opportunities for engagement and participation.

College based learning is the predominant experience with attendance at all scheduled sessions seen as imperative to student progression. This is further enhanced by the use of 'virtual learning environments' (VLE) for example Moodle where each module studied has a designated Moodle site providing not only standard lecture and practical material but supplementary reading, virtual exercises and the capacity for online forums. The utilisation of VLE allows for flexibility in learning whereby materials may be accessed at an individual's convenience on site or via remote access.

A variety of learning and teaching methods are used to both reflect the variety of learning styles that inevitably exist within a group and ensure the acquisition and development of appropriate concepts, knowledge and skills. This will enable you to experience teaching methods best suited to your own preferred learning style. Enhancing employability is a core theme throughout the programme therefore our learning and teaching methods are designed to support the move to autonomy and independent learning. Learners are expected and encouraged to be reflective in their learning and as such the strategies adopted focus on deep and experiential learning and typically include:

- lectures
- laboratory classes
- individual and group tutorials
- the utilisation of case studies
- seminars and workshops
- directed and independent study involving electronic resources (VLE), textbooks and other self-study materials
- problem-based learning
- training and practice in the use of IT and software packages
- project work, both individually and in teams
- reading and interpreting research publications

<u>Assessment Strategy</u>

Our assessment strategy has also been developed to be in line with the University's Learning, Teaching and Assessment Strategy 2014-17.

The main drivers of this strategy are to:

- provide innovative, challenging and stimulating assessment which will enable you to develop the knowledge and professional skills required for employment.
- be student-centred, flexible and modern in both content and approach.
- be fully supported by, and integrated with technological approaches such as the Moodle virtual learning environment (VLE).
- impart academic rigour to the teaching and learning processes.
- support the development of independence, autonomy and self-reflection.
- support learners' needs at different stages of development.

Within a balanced scheme, assessment methods may include:

- unseen examinations
- laboratory reports
- computer-based assessments
- problem solving exercises (both of a practical and written format)
- analyse case studies to demonstrate knowledge and understanding
- oral, audio-visual and poster presentations
- peer and self-assessment
- group work

Formative assessment is also used extensively throughout the programme for and as learning. Whilst elements of assessment will test your knowledge and ability, the emphasis is on a more developmental approach to building the knowledge and skills you utilise within employment. Formative assessment will involve you being actively engaged in the assessment to encourage you to think about the learning process, to develop your ability to learn independently and to develop your employability. It will also be used to evaluate teaching.

Personal development and reflective practice will take place throughout the programme and will be implemented through the wide range of activities (both formative and summative) as well as via the personal tutorial process.

Student Support

Learning Mentor System

You will be allocated a Learning Mentor to provide pastoral guidance both directly or and in liaison with subject tutors, the course leader or through study support.

The Learning Mentor will arrange interviews/tutorials at certain times through the year to discuss your progress on the course or concerns about the course in general. The aim of a tutorial session is to identify any underlying reasons for the concerns, discuss possible solutions and agree how progress can be facilitated. It is intended to be a positive and structured forum for any concerns to be discussed and resolutions identified. You are encouraged to initiate a tutorial if you feel that you require assistance in some way. The process provides a collaborative approach between the tutor, yourself and

other Services.

During the tutorial, you and the tutor may also explore the range of support mechanisms in place both internally and externally, such as academic skills assistance, counselling and medical support for example.

Learning Resource Centre (LRC) and Student Services

Library and Student Services (LRC) offer a wide range of support, including; access to library learning resources, academic skills, careers and employability, financial help, counselling, health and wellbeing and support for disabled students and those with specific learning requirements. We know that you want to get the most out of your programme, make the best use of your time and find or continue in the career you always dreamed of.

Module leaders will collaborate with LRC advisers to ensure that your reading lists are current and items are available via the library collections. In order to maximise access, availability and usefulness, ebooks and electronic journal titles will, in most cases, be prioritised. Where appropriate, module reading lists will be made available to you electronically using the College's Moodle pages.

Course Representatives

Course representatives are invited to attend Course Team Meetings and other similar meetings to discuss any issues of concern in order to improve the quality of the teaching and to enhance your learning experience. One course representative from all the HE courses can be elected as a learner governor on the governing body of the College.

Employability

Lakes College aims to deliver accessible, flexible and quality assured programmes that provide academic inspiration and challenge, and support excellence. The courses are designed with a strong vocational focus and emphasis is given to the development of core professional and transferable skills to enhance employability.

As such, a wide range of transferable skills are covered. These include:

- Communication
- Group work
- Problem solving
- Use of information technology

In recent job advertisements in the local area, the top 2 of the top 15 baseline skills required (% of job postings), Jan-Mar 2016: were communication skills 28% and planning 12%. Similarly, at the head of the top 15 baseline skills required (% of job postings), Jan-Mar 2016: was mathematics 8%

The development of employability skills and qualities is embedded throughout the programme. For example, effective group work, data handling and problem solving are encouraged within laboratory settings; verbal communication skills through the delivery of short presentations and written communication skills are developed through the production of scientific reports.

Programme Curriculum Map[1]					
Academic Level	**Module Code**	**Module Title[2]**	**Credits**	**Module Status[3]**	**Map to Programme Outcomes[4]**
4		**Organic Chemistry** This module aims to introduce the principles of organic chemistry. Structures and bonding are used to explain reaction mechanisms as well as the conversion of functional groups.	20	Core Semester 1 & 2	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
4		**Inorganic Chemistry** This module aims to provide a firm foundation of chemistry by applying the principles of inorganic chemistry to aspects of bonding and structure as well as the chemistry of selected elements. The unit also reviews industrial applications, thus laying the foundation for learners to study chemistry at higher levels.	20	Core Semester 1	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
4		**Physical Chemistry** This module aims to provide an understanding of the concepts and practical techniques of physical chemistry. These include thermodynamics, reaction kinetics and chemical equilibrium.	20	Core Semester 1	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
4		**Laboratory Techniques** To enable learners to demonstrate practical techniques used in chemical analysis and to become proficient in a range of deductive skills and data analysis in a	20	Core Semester 1 & 2	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8

Programme Curriculum Map[1]					
Academic Level	**Module Code**	**Module Title[2]**	**Credits**	**Module Status[3]**	**Map to Programme Outcomes[4]**
		chemical context.			
4		**Professional Skills for Industrial Applications** This module aims to equip students with practical skills and techniques that they will need as a project manager in the scientific industry. When used in conjunction with a wider appreciation of laboratory accreditation processes and quality management systems, they will enable the student to develop into a highly effective project manager.	20	Compulsory Semester 2	K3, K4 S4, S5, S7, S8
4		**Scientific Data Analysis** This module aims to develop the mathematical skills used in the analysis of scientific data, coupled with an appreciation of the limitations in reporting results.	10	Compulsory Semester 1	K3, K4 S3, S5, S7, S8
4		**Molecular Modelling** To introduce students to molecular modelling techniques, with emphasis on the methods used and their underlying theory, with hands-on experience of contemporary computational chemistry software.	10	Compulsory Semester 2	K2, K3, K4, K5 S4, S5, S6, S7, S8
5		**Further Organic Chemistry** This module builds upon the basic organic chemical	20	Core	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7

Programme Curriculum Map[1]					
Academic Level	**Module Code**	**Module Title[2]**	**Credits**	**Module Status[3]**	**Map to Programme Outcomes[4]**
		knowledge, applying principle and theories covered in level 4. The principles of functional groups, reaction mechanisms and associated mechanism between groups will be explored. The application of organic compounds within industrial contexts will also be discussed.		Semester 1 & 2	& S8
5		**Further Inorganic Chemistry** The aim of the module is to investigate topics in inorganic chemistry. Students will be introduced to the application of inorganic chemistry to applied science technology. The unit gives students the foundation to pursue research, employment or further study in specialised areas.	20	Core Semester 1	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
5		**Further Physical Chemistry** This module builds upon the basic physical chemistry concepts from Level 4 by applying principles and theories to industrial applications through the study of surface chemistry, phase equilibria and spectroscopy.	20	Core Semester 1	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
5		**Analytical Chemistry** This module aims to provide students with a comprehensive understanding of analytical techniques.	20	Core Semester 1 & 2	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8

Programme Curriculum Map[1]					
Academic Level	**Module Code**	**Module Title[2]**	**Credits**	**Module Status[3]**	**Map to Programme Outcomes[4]**
		The scope and limitations of a range of analytical techniques which are widely used in industry will be investigated.			
5		**Research Project** This module enables learners to demonstrate a high level of independence in applying their acquired knowledge and skills towards their chosen practical project.	20	Core Semester 2	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
5		**Introduction to Nuclear Chemistry** This module provides insight into the stability and radioactive decay of isotopes. The applications of radioactive isotopes in chemistry and medicine, nuclear power and the impact of radioactivity on society and the environment will be explored.	10	Optional Semester 2	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
5		**Introduction to Polymer Chemistry** This module enables explores the structure, reaction mechanisms and preparation of polymers. The types of polymers, their properties and performance under different conditions will be examined.	10	Optional Semester 2	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7 & S8
5		**Introduction to Environmental Chemistry** This module provides learners with an understanding	10	Optional Semester 2	K1, K2, K3, K4, K5 S1, S2, S3, S4, S5, S6, S7

Programme Curriculum Map[1]					
Academic Level	**Module Code**	**Module Title[2]**	**Credits**	**Module Status[3]**	**Map to Programme Outcomes[4]**
		of natural environmental cycles and the influence of pollutants on ecosystems. The sources and effects of environmental pollutants together with techniques of sampling and chemical analysis are examined.			& S8
Notes					
List here any other information (e.g. any pre-/co-requisites), progression, etc. Adapt table as necessary or add comments to describe any required pathways through the set of modules.					

[1] This programme operates in accordance with the University's Academic Regulations and Academic Procedures and Process.

[2] Please refer to the relevant programme webpage on the University's website for summaries of the individual Module Aims.

[3] **Core Modules** must be taken and must be successfully passed.
Compulsory Modules must be taken although it may possible to carry as a fail (if the award permits).
Optional Modules are a set of modules from which you will be required to choose to study. Once chosen, unless indicated otherwise in the table above, an optional module carries the same rules as a compulsory module as per the Academic Regulations.
Qualificatory Units. These are non-credit bearing pass/fail components that are used to satisfy relevant professional, statutory or regulatory body professional requirements that are associated with the programme.

[4] This column references the Programme Outcomes that will be achieved through successful completion of each module (i.e. through successful completion of the module summative assessment)

Programme Delivery Structure: Full Time / Part Time **This programme commences in January**				
Module Code	**Module Title**	**Delivery Pattern** **Autumn Semester / Spring Semester**	**Method(s) of Assessment**	**Approximate Assessment Deadline**
	Organic Chemistry	Spring/Autumn-Core	Written Assignment 40% Written Exam 60%	Mid Semester 2 End of Semester 2
	Inorganic Chemistry	Spring-Core	Written Assignment 40% Written Exam 60%	Mid of Semester 1 End of Semester 1
	Physical Chemistry	Spring-Core	Written Assignment 40% Written Exam 60%	Mid of Semester 1 End of Semester 1
	Laboratory Techniques	Spring/Autumn-Core	Practical Skills Assessment 100%	Mid & End of Semester 1 & 2
	Molecular Modelling	Autumn-Compulsory	Set Exercise 50% Portfolio 50%	End of Semester 2 End of Semester 2
	Scientific data Analysis	Spring-Compulsory	Set Exercise 100%	End of Semester 1
	Professional Skills for Industrial Applications	Autumn-Compulsory	Project Work 60% Oral Presentation 40%	End of Semester 2 End of Semester 2
Students exiting at this point with 120 credits would receive a CertHE				

	Further Organic Chemistry	Spring/Autumn-Core	Written Assignment 40% Written Exam 60%	Mid Semester 2 End of Semester 2
	Further Inorganic Chemistry	Spring-Core	Set Exercise 40% Written Exam 60%	Mid Semester End of Semester 1
	Further Physical Chemistry	Spring-Core	Practical Skills Assessment 40% Written Exam 60%	Mid Semester 1 End of Semester 1
	Analytical Chemistry	Spring/Autumn-Core	Practical Skills Assessment 50% Oral Presentation 50%	Mid & End of Semester 1 & 2 End of Semester 2
	Research Project	Autumn-Core	Oral Presentation 20% Report 80%	End of Semester 2 End of Semester 2
	Introduction to Nuclear Chemistry	Autumn-Optional	Written Assignment 50% Written Exam 50%	Mid of Semester 2 End of Semester 2
	Introduction to Polymer Chemistry	Autumn-Optional	Portfolio 50% Oral Assessment 50%	End of Semester 2 End of Semester 2
	Introduction to Environmental Chemistry	Autumn-Optional	Portfolio 100%	End of Semester 2
Students exiting at this point with 240 credits would receive a DipHE				

Methods for Evaluating and Improving the Quality and Standards of Learning	
Mechanisms used for the Review and Evaluation of the Curriculum and Learning, Teaching and Assessment Methods	Lakes College • Module Evaluation Lakes • Programme validation and revalidation • Annual Evaluatory Reports at annual summary reports at H.E. Board meeting • Peer Review • External Examiner reports UoC • Annual Evaluatory Report • Departmental Quality Committees
Mechanisms used for gaining and responding to feedback on the quality of teaching and the learning experience – gained from: **Students, graduates, employers, WBL venues, other stakeholders, etc.**	Lakes College • Learner Liaison meetings • Module Evaluation Forms • Module/Programme/Personal tutorials • Meetings with External Examiners • Employers meetings UoC • Departmental Quality Committees

Date of Programme Specification Production:	
Date Programme Specification was last updated:	
For further information about this programme, refer to the programme page on the University website Please liaise with Webteam to discuss requirements for new programme webpage creation or amending existing webpages.	