Programme specification

(Notes on how to complete this template are provide in Annexe 3)

1. Overview/ factual information

Programme/award title(s)	Foundation Degree in Biological and Pharmaceutical Science
Teaching Institution	Southern Regional College
Awarding Institution	The Open University (OU)
Date of first OU validation	4th May 2021
Date of latest OU (re)validation	
Next revalidation	
Credit points for the award	240
UCAS Code	N/A
HECoS Code	
LDCS Code (FE Colleges)	
Programme start date and cycle of starts if appropriate.	September 2021 – yearly September intake Option on January intake if required
Underpinning QAA subject benchmark(s)	Subject Benchmark Chemistry Subject Benchmark Biosciences Foundation Degree Benchmark Statements
Other external and internal reference points used to inform programme outcomes. For apprenticeships, the standard or framework against which it will be delivered.	
Professional/statutory recognition	N/A
For apprenticeships fully or partially integrated Assessment.	
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face) Apprenticeship	FT, PT
Duration of the programme for each mode of study	FT – 2 Years PT – 3 Years
Dual accreditation (if applicable)	N/A

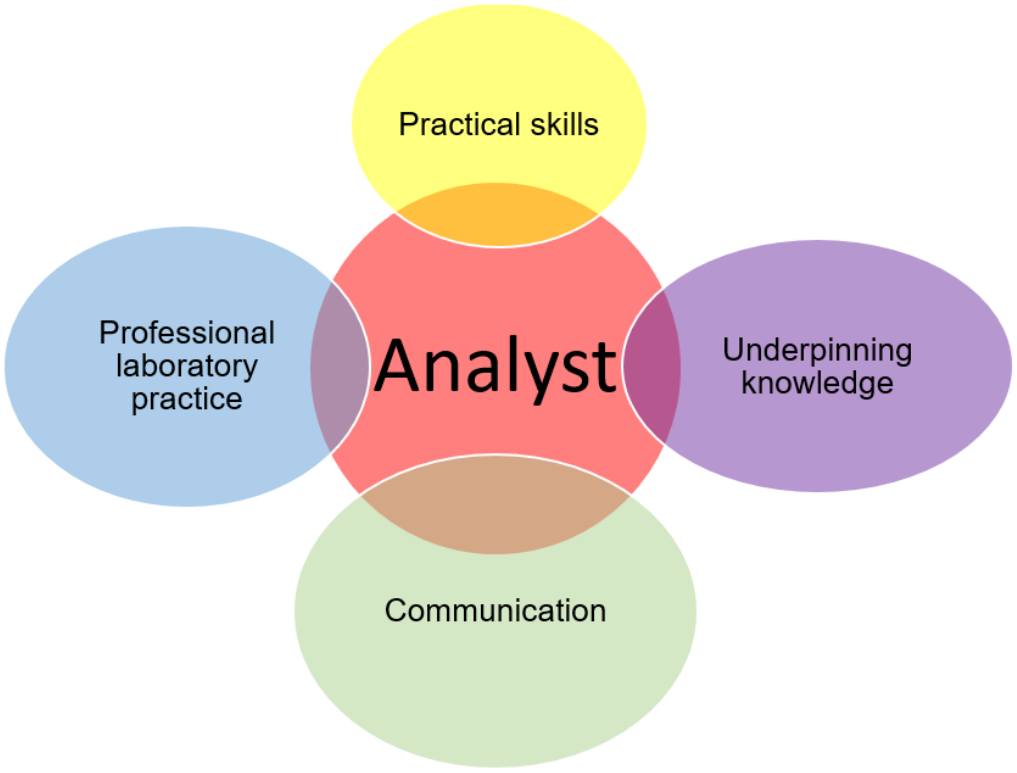
Date of production/revision of this specification	8th March 2021

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in student module guide(s) and the students handbook.

The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.

2.1 Educational aims and objectives



A professional analytical scientist is required to demonstrate excellent handling techniques in terms of equipment and samples as well as excellent communication, team-working and IT skills. All of these skills are addressed through the variety of theoretical and practical aspects of the modules.
Communication skills are integral to all aspects of the course; initially these skills are established in academic skills with the development of written English, research, academic writing and digital skills. This encourages students to take a reflective approach to the development of their academic and professional practice and to build confidence and practice in academic writing. These seminal communication skills are developed further though all Level 4 and 5 modules with written, oral and presentation aspects to the module.

Mathematical and statistical methods are essential to the pharmaceutical and life science sectors. Students will develop key skills in numeracy including the evaluation of numerical data, which are addressed and applied further in analytical modules and Work Based Skills Professional practice is one of the most important factors to achieve high staff satisfaction, better workplace systems and ultimately positive laboratory output. To achieve this students are required to understand the importance of reflecting on learning, skills and working practices. Students are encourage to develop these skills through all their modules with a focus on this in particular in Introduction to EBP, GLP and Work Based Skills.
Underpinning theoretical knowledge is required alongside practical skills as together they allow informed analysis, which is developed through an understanding of the principles of atomic structure and bonding, understanding how reactions occur, theoretical and practical aspects of organic chemistry, inorganic and physical chemistry and physiology of several key body systems at Level 4. Knowledge is expanded and developed through biochemistry, analytical science, further inorganic and physical chemistry, immunology and genetics at Level 5.
Students are required to participate in group work (research, presentation and practical), to encourage and promote the development of team-working skills in a variety of modules. Through GLP, Discovery, Manufacturing and Stability and Work Based Skills, all students are given exposure to a professional laboratory and practices where they examine core areas of professional laboratory practice including laboratory management, ethical conduct with a focus on the importance of implementation of correct procedures and processes to achieve high staff satisfaction, better workplace outcomes and ultimately positive laboratory output.
The Foundation Degree in Biological and Pharmaceutical Science (is designed to fulfil the following aims:

- To develop a range of skills and abilities appropriate for those employed, or hoping to be employed, in an industrial laboratory environment;
- To provide a programme of study that will equip individuals with the skills, knowledge and understanding of chemical and biosciences which will act as a firm foundation for their future studies;
- To allow progression to an Honours Degree in this, or a related, area;
- To develop the synergy between practical and theoretical aspects of chemical and bioscience activities;
- To advance knowledge and enrich the cultural life of Northern Ireland by increasing the knowledge pool of practitioners;
- To meet the personal and occupational needs of those involved in the science industry;
- To stimulate enterprise and creativity, contributing to wealth creation and economic prosperity.

On completion of the course it is envisaged that students will be able to:

- Undertake a position of responsibility in the Biological and Pharmaceutical Science field;
- Appreciate the impact of fast changing technologies within the Pharmaceutical Science field;
- Participate effectively in the planning/operation/management of science integrated technologies;
- Identify the opportunities available to them on completion of the course including life-long learning.

Overall, the proposed qualification will offer an opportunity for the 'professionalisation' of the science industry sector in Northern Ireland, but there will also be benefits for those seeking employment elsewhere.

2.2 Relationship to other programmes and awards

(Where the award is part of a hierarchy of awards/programmes, this section describes the articulation between them, opportunities for progression upon completion of the programme, and arrangements for bridging modules or induction)

The programme will allow students to progress to a BSc Hons Degree in Biological and Pharmaceutical Science, a programme specification for the BSc accompanies this document. Students may also have the opportunity to progress to a BSc in many related fields such as Pharmaceutical Science, Biomedical, Biosciences. The entry criteria for progression to other courses will vary pending the educational establishment entry criteria.

2.3 For Foundation Degrees, please list where the 60 credit work-related learning takes place. For apprenticeships an articulation of how the work based learning and academic content are organised with the award.

A 10 credit work-related learning module – Good Laboratory Practice is completed Level 4. Students are introduced to the importance of equipment calibration and complete the calibration of standard laboratory equipment such as balances, pH meters and pipettes in line with SOPs. To understand fully the importance of clear and concise writing, students will also produce an SOP for a calibration. FT students and PT students complete this module in the industrial laboratory in the college. Following on from this students complete Introduction to EBP (20 credits), which focuses on evaluating laboratory procedures through an evidence-based approach.
At level 4 the focus is in industrial laboratory procedures, there is a shift in emphasis at Level 5 to the manufacturing side of industry and the importance of GMP, packaging and product stability in business, this is Discovery, Manufacturing and Stability. Both the underlying practical issues and the economic costs involved are considered.
PT and FT students undertake the 40 credit module Work Based Skills in Year 2. For PT students attending the course through day-release by their employer, the company will nominate a work place mentor and a member of the course team will act as the college based supervisor to the student. A mechanism will be put in place to allow the student and the work place mentor to have effective communication with the college based supervisor, who will also make at least three visits to the placement during the fifteen-week period. Through the tutorial system students are introduced to the concept of work placement and at this point are guided to actively seek a suitable work placement. As a result, it is anticipated that students find a placement in their own locality. Where a student is unable to find a suitable placement the course team will be able to provide a range of options from a bank of employers in the local area, in cooperation with the Colleges Business Support and Innovation Team. All placements must be formally confirmed by the host organisation prior to commencement of the Work Based Skills module. An ongoing consultation process will occur with the student in tutorials to ensure a suitable placement has been selected. Should a student be unable to find an employer the college can allow the student to complete their work-related learning through a college based project in the colleges industrial laboratory through project-based learning.

The college has invested heavily in industry grade analytical equipment and a biological work station (Annex). The range of analytical techniques available results in an equitable experience for students, in terms of exposure to techniques, whether the module is completed through PBL or in the workplace.
Support for work-related learning: Students, employers and the college must complete a tripartite agreement, induction checklist and health and safety proforma.

The college in collaboration with employers and former students have produced three handbooks for the delivery and assessment of the work based learning elements. Each handbook is relevant to the parties involved and individual roles and responsibilities are clearly outlined.

In addition to providing students with experience of industrial working practices these modules also provides them with an opportunity to relate these to and to integrate them with the academic content of their course.

2.4 List of all exit awards
Level 4: CertHE

3. Programme structure and learning outcomes

Programme Structure - LEVEL 4/5 PT (3 Yrs)					
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**
Yr 1					
Academic Skills	10			YES	Sem 1
Mathematical and Statistical Science	20			YES	Sem 1
Fundamentals of Chemistry	20			YES	Sem 1 & 2
Good Laboratory Practice	10			YES	Sem 1
Pharmaceutical and Organic Chemistry	20			YES	Sem 2
		Physiology of the Human Body	20	YES	Sem 2
		Inorganic and Physical Chemistry 1	20	YES	Sem 2
Yr 2					
Introduction to EBP	20			YES	Sem1
Pharmaceutical and Organic Chemistry	20			YES	Sem1
		Physiology of the Human Body	20	YES	Sem1
		Inorganic and Physical Chemistry 1	20	YES	Sem1
Biochemistry	20			YES	Sem 2
		Analytical Science	20	YES	Sem 2
		Cell Biology and Immunology	20	YES	Sem 1
Yr 3					
		Microbiology	20	YES	Sem 1/2
		Discovery, Manufacturing & Stability	20	YES	Sem 1/2
		Advanced Analytical Science	20	YES	Sem 1/2
		Genetics and Molecular Biology	20	YES	Sem 2

Work Based Skills	40			YES	Sem 2

Programme Structure - LEVEL 4/5 FT (2 Yrs)					
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**
Yr 1					
Academic Skills	10			YES	Sem 1
Mathematical and Statistical Science	20			YES	Sem 1
Fundamentals of Chemistry	20			YES	Sem 1
Good Laboratory Practice	10			YES	Sem 1
Pharmaceutical and Organic Chemistry	20			YES	Sem 2
Introduction to EBP	20				Sem 2
		Physiology of the Human Body	20	YES	Sem 2
		Inorganic and Physical Chemistry 1	20	YES	Sem 2
Yr 2					
Biochemistry	20			YES	Sem 1
		Analytical Science	20	YES	Sem 1
		Cell Biology and Immunology	20	YES	Sem 1
		Discovery, Manufacturing and Stability	20	YES	Sem 1/2
		Microbiology	20	YES	Sem 1/2
		Advanced Analytical Science	20	YES	Sem 1/2
		Genetics and Molecular Biology	20	YES	Sem 2
Work Based Skills	40			YES	Sem 2

Intended learning outcomes at Level 4 are listed below:

Learning Outcomes – LEVEL 4	
3A. Knowledge and understanding	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
A1 Demonstrate acquisition of academic research skills through sourcing and reflecting on research material. A2 Apply and perform basic mathematical and statistical techniques and analysis in content to scientific data. A3 To understand and apply the knowledge of the principal factors which govern the structure, physical behaviour and chemistry of organic and inorganic molecules. A4 To understand and apply the knowledge of the principal factors which govern the chemistry of main group and D-block elements. A5 Explain the principals of laboratory safety and describe the related regulations and legislation and how they impact on quality assurance. A6 Identify the functional groups of the families of homologous compounds studied, name organic compounds containing these functional groups and describe the methods of their isolation/ synthesis and chemical behaviour through detailed reaction mechanisms. A7 Demonstrate an understanding of how to make scientific observations and communicate scientific information.	Interactive lectures, will develop the underlying knowledge. Students will be directed to develop their knowledge by accessing secondary sources of information including, textbooks and journals. Additional support will be provided through blended learning. Learning and teaching will nurture and enable the learners to engage in independent academic research, equipping students for life-long learning through the development of critical thinking and problem solving skills. Assessment: Critical evaluation of research communicated by a variety of means; Mathematical worksheets; Class tests; Case studies; Portfolio; Exams; Accurate record keeping

3B. Cognitive skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
B1 Display academic writing skills in academic prose and presentation preparation through planning and preparing written work. B2 Interpret results from experimental data using appropriate mathematical and statistical techniques. B3 Integrate theoretical knowledge and practice to solve qualitative and quantitative problems, in both familiar and unfamiliar contexts. B4 Discuss the importance of procedures and practices embedded in the scientific workplace that ensure quality in processes and review scientific quality processes that maintain data integrity. B5 Apply their knowledge of functional group reactions to organic synthesis. B6 Discuss how academic knowledge is utilised in the laboratory setting by using evidence based practice (EBP) to improve current practice; ensuring all sources of information is valid and credible; identifying a potential improvement within the case study, summarising the details from research papers.	Independent research, case studies and student led seminars will be used to develop critical thinking, reasoning and problem solving. Students will work in groups to produces a presentation on a relevant topic. A collaborative working space e.g. MSTeams will be used to support the collaboration. Learners will independently interpret supplied experimental results using appropriate mathematical techniques. Workshop style tutorials will used tools such as case studies as a research approach to generate an in-depth, multi-faceted understanding of complex professional practice issues in its real-life context. Learners will be directed to read relevant supporting academic texts, journals and websites. Relevant case studies will also be used developing skills in analysis, interpretation and solutions. Additional support will be provided through blended learning. Assessment: Writing experimental reports; Demonstrating knowledge of software packages through assignments; Practicals and associated structured worksheets; Case studies; Class test; Exams; Portfolio; Accurate record keeping

3B. Cognitive skills	

3C. Practical and professional skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
C1 Use software packages to draw and name molecules. C2 Apply mathematical and statistical knowledge and skills to interpret scientific data. C3 Exhibit knowledge and application of the regulations and proper procedures of the safe handling of chemicals and appreciate the requirement for good practice in data collection and processing. C4 Exhibit knowledge and understanding of the basic techniques required for the preparation and analysis of simple inorganic compounds. C5 Calibrate equipment following an SOP and produce an SOP for the calibration of a standard piece of laboratory equipment. C6 Perform practical organic synthesis through the preparation of paracetamol and aspirin and apply the reaction mechanisms studied to the total synthesis of an active pharmaceutical ingredient. C7 Perform, analyse and report on physiological experiments and interpret scientific data, including those from clinical case-based studies.	Practical activities based on and supported by theory taught through lectures will allow students handle chemicals/equipment safely, follow good practice in the lab and report data appropriately through the completion of scientific worksheets independently during and post practical. Learning and teaching will nurture and enable the development of learners as active researchers equipping students for life-long learning through the development of critical thinking and problem-solving skills. Professional discussion will aid the development of their professional and personal understanding of working environments along with the development of negotiation skills and leadership roles. Workshops/tutorials will facilitate the application and interpretation of scientific datra. Assessment: Demonstrating knowledge of software packages through assignments; Completing risks assessments; Practical worksheets;

3C. Practical and professional skills	
	Practicals – SOPs; Exams; Accurate record keeping

3D. Key/transferable skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
D1 Accept responsibility when working in a group/independently to research, communicate and reference material appropriately. D2 Communicate findings from experiments/studies using appropriate mathematical/statistical language utilising ICT as appropriate. D3 Present and interpret the concepts and results of practical experiments. D4 Identify the requirements of equipment validation procedures and consider quality control measures required to improve data quality. D5 Plan, execute, communicate and present the concepts and results of practical experiments (qualitative and quantitative) through the application of sound theoretical principles. D6 Participate in the laboratory environment positively as an active team member and gather relevant information; express considered views on laboratory practice while searching relevant literature to improve upon work practice & performance. Produce a report	Through group, independent learning, practicals and seminars learners will increase their confidence and their ability to produce accurate results communicate findings using appropriate techniques. Assessment: Critical evaluation of research communicated by a variety of means; Worksheets; Practicals- SOPs; Exams; Portfolio

3D. Key/transferable skills	
addressing concerns about current practices and suggesting a solution / future development area.	

[Cert HE in Biological and Pharmaceutical Science]

Intended learning outcomes at Level 5 are listed below:

Learning Outcomes – LEVEL 5	
3A. Knowledge and understanding	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
A1 Assess biochemical knowledge and practical observations of the major biomolecules, determining their biological properties and functions within living organisms. A2 Explain the theory and application of knowledge through appropriate analytical techniques. A3 Review the various aspects of the biological and pharmaceutical sectors to identify particular areas of interest and analyse the practical skills of the laboratory practitioner to enhance a business.	Lectures will provide students with the key information and knowledge and will form the basis of a learner centred approach. On-line seminars/tutorials will reinforce the lecture content and will take the form of a collaborative approach between lecturer and learner, where ideas and concepts form lectures are developed through active and enquiry-based learning. Learners will be directed to read relevant supporting academic texts, journals and websites. Self-test activities reflecting on lecture content will be used on a regular basis. Learning and teaching will utilise work-based learning. Students will be supported through a workplace mentor and a college-based mentor. Learners will be encourage to become independent in the laboratory while recognising personal limitations enabling the development of learners as active and responsible citizens, equipping students for life-long learning through the development of critical thinking and problem solving skills. Assessment Exam; Practical and associated structured analytical worksheet; Essay; Presentation;

Learning Outcomes – LEVEL 5	
3A. Knowledge and understanding	
	Lab book/worksheet. Case studies

3B. Cognitive skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
B1 Review the role of enzymes in catalysing the reactions of life and the intricate mechanisms that regulate cellular metabolism. B2 Analyse the results of techniques while understand the methods used to manipulate the results. B3 Appraise laboratory data, examine and categorise data, scientifically, evaluate the benefits of work based learning to his/her career.	Lectures will provide students with the key information and knowledge and will form the basis of a learner centred approach. On-line seminars will reinforce the lecture content and will take the form of a collaborative approach between lecturer and learner, where ideas and concepts form lectures are developed through active and enquiry-based learning. Learners will be directed to read relevant supporting academic texts, journals and websites. Self-test activities reflecting on lecture content will be used on a regular basis. Practical exercises will allow students to develop their skills and apply theoretical knowledge. Students will record all practical work on a worksheet, which will form the basis of discussions on development strategies with their peers and lecturer. Reflection and analysis of practical work by each learner is facilitated through questions on structured worksheets. Students will be supported through a workplace mentor and a college-based mentor. Learners will be encourage to become independent in the laboratory while recognising personal limitations enabling the development of learners as active and

3B. Cognitive skills	
	responsible citizens, equipping students for life-long learning through the development of critical thinking and problem solving skills. Assessment Exam Practical and associated structured analytical worksheet; Online tests; Open-book class test; Presentation; Lab book/worksheet.

3C. Practical and professional skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
C1 Experimentally identify the effect of substrate concentration and an inhibitor on enzyme kinetics, through both theoretic and practical investigation. C2 Understand the role of different experimental techniques and identify the factors, which contribute towards reaching suitable conclusions.	Lectures will provide students with the key information and knowledge. Practical exercises will complement and enhance lecture content as well as reinforcing safe, competent laboratory skills. Students will also acquire the skills in the principles of writing up scientific experiments. Reflection and analysis of practical work by each learner is facilitated through a final review. Students will record all practical work on a worksheet, which will form the basis of discussions on development strategies with their peers and lecturer. Reflection and analysis of practical work by each learner is facilitated through questions on structured worksheets. Students will be

3C. Practical and professional skills	
C3 Plan, design and execute practical activities using skills from previous modules, within safe working practices and legislation.	supported through a workplace mentor and a college-based mentor. Learners will be encourage to become independent in the laboratory while recognising personal limitations enabling the development of learners as active and responsible citizens, equipping students for life-long learning through the development of critical thinking and problem solving skills. Assessment Practical/report; Practical and associated structured analytical worksheet; Open-book class test; Presentation; Lab book/worksheet.

3D. Key/transferable skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
D1 The students will carry out a range of biochemistry practicals which will facilitate the acquisition of core biochemical practical skills. D2 The students will be able to apply their knowledge in a range of contexts and carry out analytical and investigative practicals, providing them with the core knowledge to progress in the field of biological and pharmaceutical science.	Lectures will provide students with the key information and knowledge. Group work will enable students to apply their knowledge in a range of contexts and carry out analytical and investigative practicals. Students will record all practical work, which will form the basis of discussions on development strategies with their peers and lecturer. Reflection and analysis of practical work by each learner is facilitated through a final practical report. Students will be supported through a workplace mentor and a college-based mentor. Learners will be encourage to become

3D. Key/transferable skills	
D3 Demonstrate employability and entrepreneurial skills to include organisational skills, including time management, problem solving and communication skills (individually and in groups).	independent in the laboratory while recognising personal limitations enabling the development of learners as active and responsible citizens, equipping students for life-long learning through the development of critical thinking and problem solving skills. Assessment Practical/report; Practical and associated structured analytical worksheet; Online class tests; Class tests; Presentation; Lab book/worksheet.

[Foundation Degree in Biological and Pharmaceutical Science]

4. Distinctive features of the programme structure

- **Where applicable, this section provides details on distinctive featurs such as:**
  - where in the structure above a professional/placement year fits in and how it may affect progression
  - any restrictions regarding the availability of elective modules
  - where in the programme structure students must make a choice of pathway/route
- **Additional considerations for apprenticeships:**
  - how the delivery of the academic award fits in with the wider apprenticeship
  - the integration of the 'on the job' and 'off the job' training
  - how the academic award fits within the assessment of the apprenticeship

The science industry is a developing sector which requires multi-disciplinary scientists with skills in both the Chemical and Life science sectors. Year 1 forms and secures the basic chemistry, biology, maths and skills required to progress and all modules are compulsory. During the application/interview process candidates are made aware of the distinctly diverse job roles within the chemical and life science sector and the different optional modules available, they are also made aware that module demand will at times dictate optional modules available in a specific year. As a result, there is a real need to continue developing a course, which reflects these demands.

The aims of the Foundation Degree in Biological and Pharmaceutical Science and CertHE (exit award only) are:

- Students will undertake a programme of study that will equip them for a wide range of career opportunities in the pharmaceutical industry;
- Students will be provided with the knowledge, understanding and skills of pharmaceutical sciences which will act as a firm foundation for their future studies;
- This Foundation Degree in Biological and Pharmaceutical Science will provide graduates with access to Honours Degree study;
- Enable students to analyse, design and evaluate a range of skills and techniques associated with industrial and pharmaceutical sciences;
- Students will develop a range of skills and techniques necessary to enhance the performance of a professional laboratory scientist;
- Students will gain an appreciation of the principles of science and its place within the industrial sector;
- Students will develop a range of transferable skills in areas such as problem solving, project planning and management, communication, IT and working with others;
- A successful student will develop the personal qualities and attributes required for employment in the industrial sector;
- Students will develop an awareness of the social, ethical, business and environmental issues which influence decisions;
- Successful students will enrich the cultural life of Northern Ireland by increasing the knowledge pool of practitioners;

The aims of the ***Certificate of Higher Education*** in Biological and Pharmaceutical Science are:

- To provide an exit award for the Foundation Degree in Biological and Pharmaceutical Science to allow students who, for reasons made clear to the Course Director, withdraw but have successfully completed all Level 4 modules (120 credit points).

The College has recognised that additional support for students learning. The College invested significantly in the development of a blended learning platform. Students avail of an additional online support on a weekly basis throughout the duration of the programme and are expected to attend synchronous and asynchronous tutorials to consolidate previous learning and / or prepare students for coming lessons. Each module has a weekly schedule of face to face taught sessions as well as details on the weekly online sessions. These are clearly defined in each module study guide which is available for all modules.

The course co-ordinator and team have intimate knowledge of the skills, job roles and procedures required in industrial laboratories through the vast experience gained over the past six years on the delivery of the HLA. A strong, cooperative and professional relationship has been established which has informed the module content here and will continue to form the bases of PBL in the programme.

5. Support for students and their learning.
(For apprenticeships this should include details of how student learning is supported in the work place)

An induction period of one week occurs at the start of the programme. The theory aspect of the week involves taking the students through the Student Handbook which provides information on the various policies and procedures for the programme and details the organisation of teaching and learning and describes the arrangements for submission and return of assessment. During this time students are introduced to Higher Education study, writing and reference skills. In addition, guidance material is provided online through CANVAS for the students and is also revisited during tutorial sessions. Students are also given the opportunity to sample previous student assessed work to gauge standards.

In the first year of the course a healthy balance of theory sessions mixed with practical classes have been designed to support the smooth transition to Higher Education Study.

Students are introduced to CANVAS the College's Virtual Learning Environment. Follow up sessions to encourage its use occur on a regular basis through individual subject tutors and through the tutorial system. Special note is made of the Plagiarism Policy and the 'Turnitin' system used to identify plagiarism in coursework submissions. During this Induction period students are also appointed to an individual tutor. The class group are timetabled to meet for one hour every week with this tutor who provides them with support in a variety of ways. Initially it is to assist with the settling in period to Higher Education and in some cases living away from home. As the student settles into the course the focus will develop to support the student through assignment work, exam preparation, work-based learning decisions, option choices, financial issues and attendance issues.

Retention

The College has developed a bespoke programme report database referred to as a retention 'Tool Kit'. This is used by the course team to internally benchmark recruitment, retention and achievement within the Foundation Degree. The data provides the basis of an eight weekly student review process. This is known as a Progress Review at the

College. This supplements the Exam and Progress Board process. Individual student attendance and progress is reviewed by the Course team, student support services and college management to ensure a unified approach.

6. Criteria for admission

(For apprenticeships this should include details of how the criteria will be used with employers who will be recruiting apprentices.)

Applicants must:

- Possess 5 GCSE with minimum grade C in GCSE Mathematics & English (or equivalent);
- Have successfully passed Chemistry at Level 3 (A Levels, BTEC Extended Diploma in Applied Science, Access Diploma in Adult Learning (Science route; min 60%) or Irish Leaving Certificate).
- Applicants must have a minimum of 48 UCAS points
- Applicants must also satisfy the entry requirements as set out in the prospectus. Alternatively, applicants may demonstrate their ability to undertake the course through the recognition of prior learning (RPL). The initial offer standard may vary from year to year.

Applicants who have already attained a qualification equivalent to or similar in content to any of the Foundation Degree modules will be eligible to be considered for (RPL). Those who have acquired learning through life, work experience and study not previously attested through formal education or certification may be eligible to be considered for (RPL). Applicants that obtain RPL for all year 1 modules can start at year 2 of the programme. The

process will be formalised in the College RPL Policy. In such cases the onus will be on the student to present relevant evidence to the Course Coordinator so that assessment of prior learning may be carried out by the course team in accordance with the standard operating procedure.

Table Flow Chart Illustrating the Colleges Recruitment Process

Course (both PT and FT)
Complete online application for the course
Attend Pre-enrolement Advice Session (PEAS) with CD • Overview of course structure , course demands, application process, individual interviews with applicants • CD confirms if entry criteria are met or if results are pending – conditional offer issued to applicants who meet or will potentially meet entry criteria upon receipt of results.
Upon receipt of evidence of results unconditional offer issue to applicant for the course.

Recruitment Process

Applications portal open between end Jan and end June

Campus Services email applicants requesting Employer Additional information to be completed before PEAS session.

PEAS Sessions – Curriculum Team to assess Academic, DfE and Employer Additional Information eligibility and content.

Careers workshops – Campus Services advise Careers Service of Conditional Offer numbers. Campus service & Careers liaise to organise suitable dates to send out invites to all HLA Conditional offer

Campus services to forward final Conditional offer list to Business Support as each PEAS session is completed.

Business Support forward the 'Employer Additional Information' form out to employer's 1st week of July

Business Support/SMT discuss day before A Level Result day –
Review Course Applications and HLA employment opportunities to assess current status.

A' Level result day - Curriculum Team to provide list of all academically eligible applicants to date by close of day to Business Support and Campus Services

A level result Day Business Support advise Curriculum Teams of Conditional offers of employment to date

A level result Day Curriculum Team collate FIRM offer list and advise Business Support so employers can be notified.

A level result Day Campus Service & Curriculum Team contact those who have not met HLA entrance Criteria and

Monday after A level result Day Business Support give a full overview of all HLA's employment opportunities still available to Curriculum Team/SMT.

Within a week of A level result Day PEAS session held for all late applications from June to date, Campus Service will liaise with Curriculum Team to organise this and ensure Employer Additional Information are complete

Following PEAS Curriculum Team provide a list of eligible applicants to Business Support who are still seeking employment.

Business Support submit new pool of applicants to all employers still looking to recruit

Curriculum Team to build FIRM offer class list. This will change daily as each applicant secures employment and Curriculum Team to liaise with Business Support for

7. Language of study
English

8. Information about non-OU standard assessment regulations (including PSRB requirements)
SRC’s curriculum delivery at HE assures consistency and rigour in marking through internal and external moderation as appropriate. Consistency and parity is achieved through the definition of the forms of assessment and a requirement for each programme to adopt a range of assessment methods. Assessment is governed by a structure which is rigorous and transparent.

9. For apprenticeships in England End Point Assessment (EPA).

(Summary of the approved assessment plan and how the academic award fits within this and the EPA)
N/A

10. Methods for evaluating and improving the quality and standards of teaching and learning.
Evaluation of teaching and learning is assessed through lesson observations, module evaluations, and students' responses to questionnaires, focus groups, students' comments in course meetings. All full time teaching staff are required to have achieved or be working towards a recognised teaching qualification in addition to their subject/sector qualifications/experience. Improvements are through group and individual staff development. In addition, all staff must partake in the College Staff Development Programme both of which focus on raising standards in teaching and learning as well as individual tutors' Continuing Professional Development. Improvements in teaching and learning are recorded in the College's annual HE Self-Evaluation Report (SER) and any required improvements in the Quality Improvement Plan. The HE SER is validated by the HE Advisory Board and reported to the Governors Quality and Standards Committee. To support the evidence for the production of this report a number of mechanisms are employed • Student /Staff Committee meetings • Student Surveys

- National Student Surveys

A staff appraisal process is carried out each year to assess the individual lecturer performance and identify any staff development required in the incoming year.

Every 2 years classroom observations are carried out to assess the pedagogic performance of lectures and any develop needed,

The college has developed a team of Teaching and Learning Advisors to help support staff and teams in improving the quality and standards of teaching and learning.

10. Changes made to the programme since last (re)validation
N/A

Annexe 1: Curriculum map

Annexe 2: Curriculum mapping against the apprenticeship standard or framework (delete if not required.)

Annexe 3: Notes on completing the OU programme specification template

Annexe 1 - Curriculum map

This table indicates which study units assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes.

Level	Study module/unit	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	C6	C7	D1	D2	D3	D4	D5	D6
4	Academic Skills	X							X						X							X					
	Mathematical and Statistical Science		X							X						X							X				
	Fundamentals of Chemistry			X							X						X							X			
	Inorganic & Physical Chemistry 1				X						X							X						X			
	GLP					X						X							X						X		
	Organic and Pharmceutical Chemistry						X						X							X						X	
	Physiology of the Human Body					X					X								X					X			
	Introduction to EBP							X						X							X						X

Level	Study module/unit	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3
5	Biochemistry	X			X			X			X		
	Analytical Science		X			X			X		X		
	Cell Biology and Immunology		X			X			X		X		
	Discovery, Manufacturing and Stability		X			X			X		X		
	Microbiology		X			X			X				
	Advanced Analytical Science		X			X			X		X		
	Genetics and Molecular Biology		X			X			X		X		
	Work Based Skills			X			X			X			X

Annexe 3 - Curriculum mapping against the apprenticeship standard N/A

This table indicates which study units assume responsibility for delivering (shaded) and assessing (✓) particular knowledge, skills and behavious.

Please ammend this mapping to suit Frameworks used within the different Nations if appropriate.

Level	Study module/unit	Apprenticeship standard																								
		K1	K2	K3	K4	K5	K6	K7	K8	S1	S2	S3	S4	S5	S6	S7	S8	B1	B2	B3	B4	B5	B6	B7	B8
4																									

Level	Study module/unit	Apprenticeship standard																								
		K1	K2	K3	K4	K5	K6	K7	K8	S1	S2	S3	S4	S5	S6	S7	S8	B1	B2	B3	B4	B5	B6	B7	B8
5																									

Annexe 2: Notes on completing programme specification templates

1 **-** This programme specification should be mapped against the learning outcomes detailed in module specifications.

2 – The expectations regarding student achievement and attributes described by the learning outcome in section 3 must be appropriate to the level of the award within the **QAA frameworks for HE qualifications**: http://www.qaa.ac.uk/AssuringStandardsAndQuality/Pages/default.aspx

3 – Learning outcomes must also reflect the detailed statements of graduate attributes set out in **QAA subject benchmark statements** that are relevant to the programme/award: http://www.qaa.ac.uk/AssuringStandardsAndQuality/subject-guidance/Pages/Subject-benchmark-statements.aspx

4 – In section 3, the learning and teaching methods deployed should enable the achievement of the full range of intended learning outcomes. Similarly, the choice of assessment methods in section 3 should enable students to demonstrate the achievement of related learning outcomes. Overall, assessment should cover the full range of learning outcomes.

5 - Where the programme contains validated **exit awards** (e.g. CertHE, DipHE, PGDip), learning outcomes must be clearly specified for each award.

6 - For programmes with distinctive study **routes or pathways** the specific rationale and learning outcomes for each route must be provided.

7 – Validated programmes delivered in **languages other then English** must have programme specifications both in English and the language of delivery.