Programme specification

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

1. Overview/ factual information

Programme/award title(s)	BEng (Hons) Degree in Engineering (Top Up)
Teaching Institution	Southern Regional College
Awarding Institution	The Open University (OU)
Date of first OU validation	March 2022
Date of latest OU (re)validation	
Next revalidation	
Credit points for the award	BEng 120
UCAS Code	N/A
HECoS Code	
LDCS Code (FE Colleges)	
Programme start date and cycle of starts if appropriate.	September 2022
Underpinning QAA subject benchmark(s)	Engineering
Other external and internal reference points used to inform programme outcomes. For apprenticeships, the standard or framework against which it will be delivered.	Engineering Council Accreditation of Higher Education Programmes: UK Standard for Professional Engineering Competence Northern Ireland Skills Barometer
Professional/statutory recognition	N/A
For apprenticeships fully or partially integrated Assessment.	N/A
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face) Apprenticeship	Full-Time, Part-Time and Higher-Level Apprenticeship
Duration of the programme for each mode of study	BEng Engineering (Top Up) 1 Year Full-Time 2 Years Part-Time
Dual accreditation (if applicable)	N/A

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

The aim of this programme is to produce graduates who can apply their understanding, knowledge, experience, skills and know-how to create social and economic value within the context of the Northern Ireland and UK economy.

It aims to produce graduates who understand the underlying principles which underpin engineering, who can conceive, design and implement a solution to a problem, create something new, which adds value to an organisation and society, within the boundaries of organisational strategy and societal ethics.

The objective is to develop graduates who:

- Work pragmatically to develop solutions to problems and have strategies for being creative, innovative and overcoming difficulties by employing their skills, knowledge and understanding in a flexible manner.
- Are skilled at solving problems by applying their numerical, computational, analytical and technical skills, using appropriate tools.
- Are risk, cost and value-conscious, and aware of their ethical, social, cultural, environmental, health and safety, and wider professional responsibilities.
- Are familiar with the nature of business and enterprise in the creation of economic and social value.
- Appreciate the global dimensions of engineering, commerce and communication.
- Are able to formulate and operate within appropriate codes of conduct, when faced with an ethical issue.
- Are professional in their outlook, capable of team working, effective communicators, and able to exercise responsibility and sound management approaches.

Date of production/revision of this specification	March 2022

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)
Southern Regional College currently delivers a successful Foundation Degree in Mechatronic Engineering. This is currently delivered on two campuses, Newry and Portadown, in two modes of delivery – Full-Time, (over 2 years) & Part-Time, (over 3 years). The proposed course will act as a progression route for successful students on these programmes, allowing them to complete an Honours Degree in Engineering by acquiring a further 120 credits of learning at Level 6. The College also delivers a very successful Level 3 Engineering programme on all main campuses, with students studying full-time or in a combination of apprenticeship options, with very high success rates. This proposed course will enable students to progress from Level 3 right through to Level 6 at Southern Regional College, whilst maintaining strong links to the employers and local industry, ensuring a more work-ready graduate, to meet the needs of the thriving local engineering economy.

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.
N/A

2.4 List of all exit awards
B.Eng Engineering (Ordinary Bachelor's Degree on completion of 60 credits at Level 6)

3. Programme structure and learning outcomes

(The structure for any part-time delivery should be presented separately in this section.)

BEng (Hons) Degree in Engineering (Top Up)

BEng Engineering (Top Up) Part time Programme Structure - LEVEL 6					
				LEVEL 6 (First Year of Study)	
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**
Engineering Business Systems	20			Y	Sem 1 & 2
Innovation through Engineering Design	20			Y	Sem 1 & 2
Industry 4.0	20			Y	Sem 1 & 2
				LEVEL 6 (Second Year of Study)	
Operations Management	20			Y	Sem 1 & 2
Dissertation	40			Y	Sem 1 & 2

BEng (Hons) Degree in Engineering (Top Up)

BEng Engineering (Top Up) Full time Programme Structure - LEVEL 6					
				LEVEL 6 (First Year of Study)	
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**
Engineering Business Systems	20			Y	Sem 1
Innovation through Engineering Design	20			Y	Sem 1
Industry 4.0	20			Y	Sem 1
Operations Management	20			Y	Sem 2
Dissertation	40			N	Sem 2

Learning Outcomes – LEVEL 6	
3A. Knowledge and understanding	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
A1 Demonstrate an understanding of the key concepts, theories and principles used in the management of engineering systems and apply these to specific problems. A2 Demonstrate a knowledge of the environmental, social, cultural, health and safety, ethical, and wider professional responsibilities of an engineer, with insight into cost, risk and value. A3 Demonstrate knowledge of innovation through design techniques and apply this knowledge. A4 Understand technical systems for analysing and improving engineering operations. A5 Understand the nature of business and enterprise in the creation of social and economic opportunities. A6 Demonstrate knowledge of how Industry 4.0 is transforming manufacturing.	These learning outcomes will be developed through a diverse range of learning, teaching, and assessment methods to enhance and reinforce the student learning experience. This diversity of practice is a strength of the programme. Lecturers will introduce the course content using notes, textbooks/eBooks, and other TEL, as well as discussion, error analysis or project-based scenarios. Students will be provided with access to the teaching and learning content, prior to class commencement and this pedagogical approach will actively encourage them to embrace individual work, peer and small group work, plenaries, independent study and other flipped classroom strategies. Tutorials will be used to promote and deepen students' understanding and application of knowledge by performing calculations and investigations into various aspects of the course content. Students will be directed to use selected material from the required textbooks and/or online sources to reinforce and extend their learning and test conceptual and procedural understanding. They will also be expected to attempt all tutorial questions and to complete any unfinished class work outside of lecture time.

	The course is delivered by blended learning through face-to-face and asynchronous activities, using a standard VLE as a comprehensive learning, teaching and assessment platform.

3B. Cognitive skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
B1 Critically evaluate a range of information in relation to engineering proposals, carrying out research and evaluating data to inform understanding and justify decisions. B2 Analyse complex problems and apply a pragmatic and systematic approach, utilising logical and practical steps to bring a solution to reality. B3 Analyse engineering processes or concepts in specific conditions and situations and demonstrate a creative and innovative approach to solving a problem. B4 Coherently demonstrate engineering skills, knowledge and understanding in a flexible manner to achieve sustainable solutions.	A number of problem-solving strategies will be discussed, and students will have the opportunity to implement their learning during tutorials, group exercises and Project Based Learning case studies promoting active learning. Lectures and workshops will also provide the framework for directing independent student learning activity and skills development. As such, students will be presented with relevant information, tasks and source material in lectures and workshops and enable them to build upon their cognitive skills. Workshops will be held to assist students to develop skills in questionnaire and interview design and in qualitative and quantitative data analysis. Students will be introduced to referencing software and the library electronic journal databases to assist, supplement and support with their independent research.

3C. Practical and professional skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
C1 Demonstrate and apply numerical, computational, analytical, and technical skills to solve engineering problems using appropriate tools. C2 Identify relevant sources of information to inform business decisions and to apply feasible solutions to achieve business objectives. C3 Apply strategies to achieve success within an engineering project utilising skills and knowledge to overcome difficulties and deliver a sustainable solution. C4 Demonstrate and apply practical knowledge in a range of tools, techniques, software and lab equipment in relation to specialised engineering tasks.	For students to achieve a satisfactory level of the practical and professional skills required of a graduate engineer, in this programme, they have significant exposure to hands-on laboratory work and substantial active learning via individual and group project work. The curriculum includes both design and research-led projects, which develop in graduates, both independence of thought and the ability to work effectively in a team, as well as the need to apply analytical tools and techniques and to work within an ethics framework. The course will require the production of substantial pieces of projects/theses. Learners will work autonomously and the validity of their independent work will be validated through the use of plagiarism detection software which learners will be made aware of from the outset.

3D. Key/transferable skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
D1 Competently use digital technology to identify and critically evaluate engineering problems and design proposals. D2 Effectively communicate to a variety of audiences orally, in writing and by other basic media using a range of IT tools and applications. D3 Demonstrate an appreciation of the professional outlook, making constructive contribution to teamwork, exercising	Teaching and learning will be placed within the context of social, ethical, legal, environmental, and economic factors relevant to engineering. Collaboration and communication will be utilised through group discussions, project-based learning activities, report writing and blended learning platforms.

responsibility, and developing personal management skills and management approaches. D4 Understand the processes and operations of business and enterprise in the engineering sector and the contribution to the creation of economic and social value.	At key points in the course, learners will be given key information which they must analyse and interpret, then seek out further reading where they must independently broaden their understanding of specific problems and technical principles. Creative and critical thinking will be encouraged through lecturer mentoring on a weekly basis. Workshops with Academics will support development of skills in research, academic writing and referencing throughout the module.

B.Eng Engineering (Ordinary Bachelor's Degree on completion of 60 credits at Level 6)

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 course has been designed with industry objectives at its core through advisory panels, feedback from close links to large local employers, industry engagement in modular review at design stage, and aims to provide a work ready graduate.

Assessment elements have also been designed to align to industry needs, and to the standards set out in the subject benchmark statement, ensuring a graduate who has developed a sense of independent enquiry, integrity, and resilience in order to meet the demands of high-level managerial posts in local industry.

The course will benefit from a large potential number of applicants from a successful Foundation degree programme and has been designed to consolidate the knowledge and skills developed through these programmes in order to create opportunities for learners to take their education further, without there being a recognisable change, it should be a natural and seamless progression, albeit to a higher level.

The graduates will benefit from a complement of staff educated up to and including Doctorate level, who are continuing through various mechanisms to be industry focussed, and research informed. The College boasts excellent facilities in terms of innovation and creativity, and learners will be exposed where possible to advances in the field of engineering.

Course staff are very much student centred; students can expect an open-door policy, and clear lines of communication formally and informally throughout the duration of their studies. Students will be taught in small groups, in most cases in familiar settings.

The College is STEM assured a further indication and assurance of the prevalence of this subject area within the college ethos.

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

The College provides a supportive environment for all students with a wide range of academic and pastoral support made available to the students.

- Student induction. All students are provided with an induction programme at the beginning of the academic period. This will include an introduction to the members of academic staff, and support staff.
- A Course Handbook is provided at the beginning of the course. This includes information on academic staff, the academic calendar, and course and module content. It also contains the course specifications and current course regulations. This Handbook is available on the college VLE.
- A Course Director is appointed providing a single point of reference for new and continuing students.
- Student /staff consultation committee meets twice per year giving opportunity to discuss issues relating to the course.
- Students are given constructive feedback on all assessments to help them develop and improve.
- All students are provided with a college email account and have access to the internet and VLE. Students can access this remotely.
- The College provides a counselling service to all students who are experiencing problems with college life or home life. Students are informed of this service during induction.
- The College provides a careers service for all students provided by the Careers Department.
- All students are allocated a personal tutor and a personal tutorial time slot. The students have the opportunity to discuss their progress and pastoral care along with any issues that may affect their performance.
- The College has a very active students union which provides the students with support throughout their studies.

Staff associated with the programmes will provide individual support through individual tutorials, meetings, or other contact, which could also be carried out electronically.

Full details are available on the College website under the HE Section https://www.src.ac.uk/tm-courses/higher-education-courses, also available within HE Course Handbook available online on Moodle.

The College currently uses Moodle as its Virtual Learning Environment. Each course has a timetabled personal tutorial/advice support and subject module tutorials that will enhance the student's learning experience.

6. Criteria for admission *(For apprenticeships this should include details of how the criteria will be used with employers who will be recruiting apprentices.)*
The BEng (Hons) Degree in Engineering (Top Up) will be available to any candidate who satisfies the criteria below: • A University of Ulster or Queens University Belfast Foundation Degree with a pass mark of 55% or above in L5 modules (or other relevant L5 qualification such as a Pearsons Higher National Certificate/Diploma) in an engineering related discipline. • Candidates presenting with FDs or HNC/Ds from other awarding bodies will be considered under RPL procedures. • GCSE English language and Maths at grade 4 (grade C) or above (or equivalent, - for example, Level 2 literacy and numeracy Essential Skills qualifications are also accepted). • Age 18 years on admission.

7. Language of study
English

8. Information about non-OU standard assessment regulations (including PSRB requirements)
N/A

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.

All programmes within the College produce a Self-Evaluation Report at the end of each academic year. Evidence to support the production of this report is garnered from a number of mechanisms such as:

- Student module reviews
- Student /Staff Committee meetings
- Student Surveys
- National Student Surveys

Internal moderation of all modules is carried out to ensure assessments are carried out to the required standard. Review and evaluation of standards is an ongoing element of all higher education provision and quality assurance compliance is a given.

A staff appraisal process is carried out each year to assess the performance of the individual lecturer 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 development required.

The College's bespoke Quality Improvement Unit, comprising an experienced team of Teaching and Learning Advisors, guide and support all lecturers to enhance the quality and standards of teaching and learning.

A QAA Higher Education Review was undertaken in April 2018.
The QAA review team formed the following rounded judgements about the higher education provision at Southern Regional College:

- **There can be confidence that academic standards are reliable, meet UK requirements, and are comparable with standards set and achieved in other providers in the UK.**
- **There can be confidence that the quality of the student academic experience meets baseline regulatory requirements.**

The review team did not identify **any areas for development**.
The review team did not identify **any specified improvements.**

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	Programme outcomes																	
		A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
6	Engineering Business Systems	X				X		X			X		X					X	
	Innovation through Engineering Design		X	X				X		X					X	X			
	Industry 4.0			X			X		X	X					X	X			
	Operations Management	X			X				X	X		X							X
	Dissertation	X	X					X			X			X			X		

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 than English** must have programme specifications both in English and the language of delivery.