Programme specification

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

1. Overview / factual information

Programme/award title(s)	BEng (Hons) Engineering (Electrical and Electronic Engineering) (Top-Up) BEng (Hons) Engineering (Mechanical Engineering) (Top-Up)
Teaching Institution	University Centre Peterborough (UCP)
Awarding Institution	The Open University (OU)
Date of first OU validation	
Date of latest OU (re)validation	N/A
Next revalidation	
Credit points achieved for the award	120
UCAS Code (if applicable)	
HECoS Code (if applicable)	
LDCS Code (FE Colleges England only	
Programme start date and cycle of starts if appropriate.	September 2025
Underpinning QAA subject benchmark(s)	QAA Subject Benchmark Statement for Engineering
Other external and internal reference points used to inform programme outcomes (including QAA Characteristics Statements). For apprenticeships, the standard or framework against which it will be delivered.	N/A
Professional/statutory/ accreditation recognition	IET
For apprenticeships fully or non-integrated Assessment. If fully integrated, EPAO being used.	N/A
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face) Apprenticeship	PT and FT Face-to-Face

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 they 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.

Duration of the programme for each mode of study	Full-time - 1 year Part-time - 2 years
Dual accreditation (if applicable)	N/A
Date of production/revision of this specification	

2. Programme overview

2.1 Educational aims and objectives

Overall aim:
To provide an integrative framework for Engineering students to develop and enhance their knowledge, skills and scientific/technical competence in the assessment of electrical and electronic engineering in a variety of contexts.

Objectives:

- To provide a comprehensive programme of study, based on QAA benchmarks and professional standards in the field of engineering.
- To provide students with the necessary practical / technical and academic skills to enable them to progress into a career in the engineering industry.
- To produce graduates with developed intellectual, practical, scientific and other transferable skills and attributes for personal and career success.
- Support students in developing a range of transferable skills and competencies required to adapt to the rapidly changing engineering industries.
- Appreciate and investigate the effectiveness of interdisciplinary interventions in the field of engineering.
- Encourage students to develop a systematic, creative and flexible approach to solving complex problems in the fields of engineering.
- Develop the student as an independent learner and reflective practitioner capable of sustaining project work both individually and in team settings.
- To offer students a structured, flexible and progressive programme of study, in preparation for careers in a wide variety of engineering related fields.
- To provide students with a secure knowledge base that will enable them to develop within their chosen career in the engineering sector.
- To instil a lifelong passion for engineering.

- To graduate students with independence of mind and developed critical faculties to enable them to participate fully in civic life.
- To promote access to further progression within higher education, research and professional development.

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 BEng (Hons) Engineering (Top-Up) programmes provides the necessary level 6 progression opportunity for students currently studying Pearson's level 5 Higher National Diploma at UCP.

The level 6 modules have been designed specifically to build on and enhance the student's knowledge and skills in engineering acquired at level 4 (developing a broad knowledge and awareness of engineering) and 5 (application of synthesis and criticality from exposure to relevant concepts theories and modules) with opportunities for students to shape their own learning and demonstrate autonomy and creativity in their own specific interests and research fields.

Upon successful completion of the BEng (Hons) Engineering (Top-Up), students may be eligible to progress onto MSc engineering related qualifications at other Higher Education Institutions. Typically, a BEng grade of 2.1 or 1st, an academic reference and interview may be required. Students would need to check with the MSc programme provider as to their specific entry requirements.

Examples of MSc qualifications include topic areas such as:

- Engineering Management
- Mechanical Engineering
- Electrical and Electronic Engineering
- Mechatronics
- Energy Engineering
- Project Management
- Master's by Research

PhD progression could also be possible upon successful learner academic reference, application and successful interview with the relevant provider. A higher BEng (Hons) Top-up grade of 2.1 or 1st is normally required.

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
BEng (Hons) Engineering (Electrical and Electronic Engineering) (Top-Up) BEng (Hons) Engineering (Mechanical Engineering) (Top-Up) BEng Engineering (Electrical and Electronics Engineering) (Top-Up) BEng Engineering (Mechanical Engineering) (Top-Up)

3. Programme structure and learning outcomes

(The structure for any part-time delivery should be presented separately in this section.)
Please adjust 'levels' to reflect SCQF if applicable

Programme Structure BEng (Hons) Engineering (Electrical and Electronic Engineering) (Top-Up) - LEVEL 6 Full-Time						
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**	**Available as single registerable module?**
Programming for Engineers	15			Yes	1	No
Power Electronics and Applications	15			Yes	1	No
Control Systems Engineering	15			Yes	2	No
Electrical Power Systems	15			Yes	2	No
Energy Engineering	30			No	1 and 2	No
Undergraduate Major Project	30			No	1 and 2	No

Programme Structure BEng (Hons) Engineering (Electrical and Electronic Engineering) (Top-Up) - LEVEL 6 Part-Time						
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**	**Available as single registerable module?**
Programming for Engineers	15			Yes	Year 1 S1	No
Power Electronics and Applications	15			Yes	Year 2 S1	No
Control Systems Engineering	15			Yes	Year 1 S2	No
Electrical Power Systems	15			Yes	Year 2 S2	No
Energy Engineering	30			No	Year 1 S1 & S2	No
Undergraduate Major Project	30			No	Year 1 S1 & S2	No

Programme Structure BEng (Hons) Engineering (Mechanical Engineering) (Top-Up) - LEVEL 6 Full-Time						
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**	**Available as single registerable module?**
Programming for Engineers	15			Yes	1	No
Advanced Mechanical Systems	15			Yes	1	No
Control Systems Engineering	15			Yes	2	No
Advanced Thermofluids	15			Yes	2	No
Energy Engineering	30			No	1 and 2	No
Undergraduate Major Project	30			No	1 and 2	No

Programme Structure BEng (Hons) Engineering (Mechanical Engineering) (Top-Up) - LEVEL 6 Part-Time						
Compulsory modules	**Credit points**	**Optional modules**	**Credit points**	**Is module compensatable?**	**Semester runs in**	**Available as single registerable module?**
Programming for Engineers	15			Yes	Year 1 S1	No
Advanced Mechanical Systems	15			Yes	Year 2 S1	No
Control Systems Engineering	15			Yes	Year 1 S2	No
Advanced Thermofluids	15			Yes	Year 2 S2	No
Energy Engineering	30			No	Year 1 S1 & S2	No
Undergraduate Major Project	30			No	Year 1 S1 & S2	No

Intended learning outcomes at Level 6 are listed below:

Learning Outcomes – LEVEL 6	
3A. Knowledge and understanding	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
A1 Demonstrate a coherent knowledge and understanding of relevant mathematical and engineering principles. A2 Demonstrate an appreciation of engineering practice, environmental, health and safety, ethical, and wider professional responsibilities of engineering, including sustainability, risk management, and EDI. A3 Apply research skills to demonstrate an awareness of current issues and developing technologies. A4 Apply knowledge and understanding of engineering principles in practice.	A diverse range of teaching and learning strategies are employed to meet the knowledge-based learning outcomes for level 6. These include but are not limited to: ● Lectures supported by seminars ● Case studies ● Practical work ● Class discussions ● Team working, peer and collaborative learning. ● Use of engineering software and related IT technology. ● Virtual Learning Environment (Canvas). ● Work-based project At level 6 students are supported to take greater responsibility for their own learning. This provides the in-depth material required for subject knowledge through wider-reading of books, papers and online articles. This helps students develop their own learning and research practices as well as providing source material for specific tasks and projects. Work with employers in industry to choose appropriate work-based engineering projects. Formative assessment opportunities will be utilised throughout each of the level 6 modules for each applicable assessment instrument. ● Report

Learning Outcomes – LEVEL 6	
3A. Knowledge and understanding	
	• Essay • Discussion • Presentation • Practical demonstration

3B. Cognitive skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
B1 Identify complex engineering problems and apply computational analytical techniques and practical steps to design a solution to meet defined needs. B2 Identify a major field of personal learning and demonstrate broad knowledge within it. B3 Demonstrate a capacity for systematic, conceptual and critical thinking.	A diverse range of teaching and learning strategies will be utilised to meet the intellectual and cognitive learning outcomes at level 6. These include but are not limited to: • Case studies • Practical work • Class discussions • Peer and collaborative learning • Virtual learning environment (Canvas). At level 6 students are supported to take greater responsibility for their own learning. This provides the in-depth material required for subject knowledge through wider-reading of books, papers and online articles. This helps students develop their own learning and research practices as well as providing source material for specific tasks and projects. Formative feedback will be available to students during the semester to ensure that work is their own. This is manageable as our teacher to student ratio is approx 1:5.

3B. Cognitive skills	
	• Report • Essay • Discussion • Journal article • Presentation • Dissertation • Research Methods Portfolio • Viva (to ensure the work is their own, and not AI)

3C. Practical and professional skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
C1 Demonstrate professional competence in engineering in line with legislation and codes of practice. C2 Collect, analyse and evaluate appropriate qualitative and quantitative information, to solve engineering problems, and make decisions. C3 Devise, plan and undertake laboratory or other investigations relating to engineering in a responsible, sensitive and safe manner, paying due diligence to risk assessment, ethical and data protection issues, rights of access, and relevant health and safety issues C4 Plan, execute and present an independent piece of work, in which qualities such as time management, problem solving and independence are evident, as well as interpretation and critical awareness of the quality of evidence.	A diverse range of teaching and learning strategies will be utilised to meet the practical and professional learning outcomes at level 6. These include but are not limited to: • Lectures supported by seminars • Case studies • Laboratory work • Reflective practice • Class discussions • Peer and collaborative learning • Virtual learning environment (Canvas). **Assessment** • Dissertation • Practical assessment • Portfolio

3D. Key/transferable skills	
Learning outcomes:	**Learning and teaching strategy/ assessment methods**
D1 Communicate appropriately about engineering to a range of audiences using a range of methods and employing appropriate scientific language. D2 Reference and cite work effectively demonstrating academic integrity. D3 Demonstrate confidence, flexibility and reflection for independent, lifelong learners to enhance autonomy and employability skills in the engineering sector. D4 Understand and present data relating to engineering.	A diverse range of teaching and learning strategies are utilised to meet the key/transferable learning outcomes at level 6. These include but are not limited to: ● Lectures supported by seminars ● Case studies ● Laboratory work ● Communication skills development ● Reflective practice ● Class discussions ● Peer and collaborative learning ● Virtual learning environment (Canvas). Formative feedback will be available to students during the semester to ensure that work is their own. This is manageable as our teacher to student ratio is approx 1:5. A range of assessment methods are employed to assess these skills including: ● Presentation ● Practical assessment ● Discussion ● Report ● Essay ● Portfolio ● Dissertation ● Viva (to ensure the work is their own, and not AI)

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 BEng (Hons) Engineering (top-up) programmes at UCP offers a progression route for students with level 5 qualifications including Pearson Higher National Diplomas and Foundation Degrees in related subjects.

Teaching staff have extensive knowledge and industry experience within the engineering industry and are actively engaged in research and professional development which directly informs and enhances course content and delivery. Small class sizes and high staff to student ratios provide excellent levels of contact and interaction with teaching staff and your fellow peers.

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

While studying at UCP, students are provided with both academic and pastoral support through a variety of mechanisms.

Regular tutorial sessions are built into all programmes delivered at UCP to provide students with the opportunity to access weekly additional support from their tutor. These sessions provide both group and one-to-one contact. Each tutorial scheme has learning partnership as its core theme, level 6 focusing on autonomy and academic enquiry as well as preparation for postgraduate employment and study.

To support our student-centred approach, tutors have an open office policy and will facilitate one-to-one sessions outside of tutorial time to most appropriately support students. The Higher Education Managers also host a daily student surgery so that concerns can be addressed promptly.

UCP also offers an additional Study Excellence programme which students can access if further support is required in developing more generic academic and employability skills. A series of optional lunch-time sessions covers issues such as developing academic writing techniques, undertaking effective academic research to support dissertations, and forming coherent and well-structured arguments.

UCP also offers additional English as an Additional Language (EAL) online sessions for students who need extra help to articulate their ideas effectively. In common with Study Excellence, these sessions are available to any student who wishes to improve their grades; not just those at the lower end of the grade profile. Statistical analysis has evidenced that students who habitually use UCP's EAL support from the start of their studies achieve a higher classification than those who decline the support.

Qualitative feedback revealed improved engagement in activities on and off campus. Statistical analysis of grade profiles and NSS satisfaction highlighted substantial improvements. Due to its success, the scheme is being introduced into a variety of other undergraduate courses and has been formally recognised as an area of focus within the UCP Teaching and Student Outcomes Strategy.

A dedicated Student Support Team ensure that there is easy access to a variety of services which can support students throughout their studies at UCP. The Student Support Officer and Student Advisor have ensured that the evolving needs of students in academic, pastoral and professional contexts can be supported. The team, working closely with the Student Officer, provides information and guidance on issues surrounding employability (explained further below), mental health, mitigations and extensions, and financial management, via a range of activities from one to one advice sessions to large scale organised events. Issues surrounding the support of students are carefully considered at a number of institutional committee meetings, with updates and statistical reporting (on elements such as correlations in late submissions, number of extensions etc.) being consistently provided at Student Engagement Learning and Teaching Committee and Academic Board.

To further enhance the institution's interaction with local industry representatives, an Employer and Community Consultative Group was established in March 2019. The group, which evolved from the HE Steering Group, will provide crucial input into how the curriculum will develop to ensure that UCP is producing employment-ready students, in subjects with recognised skills gaps in the local and regional economy. Initially chaired by the Chair of the UCP Council, the guidance provided by the group will be heard directly by the senior authority at UCP, ensuring that the voice of employers is carefully considered when planning new courses or initiatives.

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 should hold a relevant level 5 qualification (240 credits) in an engineering related subject, such as a foundation degree or Higher National Diploma at Pass grade or above. Applicants will also need a suitable academic reference.

Applicants must hold a GCSE grade C/4 in English Language and Mathematics.

7. Language of study

English

8. Information about non-OU standard assessment regulations (including Professional Statutory Recognised Body requirements)

N/A

9. For apprenticeships in England, summary of how the End Point Assessment (EPA) links to the academic award

(

N/A

10. Methods for evaluating and improving the quality and standards of teaching and learning including the student experience

UCP has 25 years' experience of delivering HE courses. The delivery team are appropriately qualified at the level they will be teaching, and have many years of previous professional experience in their specialist field in industry; two out of the three lecturers worked in industry, one for 10+ years and the other for 30+ years. Two out of three lecturers are chartered engineers, and support is given to staff and alumni students to achieve incorporated/chartered engineer status. One out of three lecturers has just completed their PhD in AI. One other lecturer is currently studying for a PhD in energy engineering. Two out of three lecturers have been delivering modules on BEng degree programmes for 10+ years.

Each member of staff is consistently peer reviewed for effective teaching practice inline with the teaching excellence framework by the UCP. The department performs annual inspections for all subjects and also offers personal developmental coaches to improve and maintain teaching and learning standards. In addition, HE Managers at UCP conduct quality walk-ins during each semester to ensure consistent quality of provision.

Staff development is available at UCP at least three times a year and staff actively take part in training events (e.g. ethics, scholarly writing and use of new technologies). Each new member of staff at UCP undergoes training and induction by the HE Managers. HE Staff also participate in Learning Teaching and Assessment meetings once a month to share good practice.

UCP HE managers oversee the training needs of staff and to mentor and support applications for Higher Education Academy fellowship.

All the team attend the annual UCP HE Learning and Teaching Conference which focuses on developing pedagogical skills. In addition, module evaluation surveys are undertaken per semester, however the team regularly ask for feedback on modules in class, via the student rep and at Student Engagement, Learning and Teaching meetings. This way modules can be constantly adapted to student feedback if appropriate.

11. 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. Please amend this mapping to suit frameworks used within the different nations if appropriate.

Level	Study module/unit	BEng (Hons) Engineering (Electrical and Electronic) (Top-Up) Programme outcomes															Available as single registerable module?
		A 1	A 2	A 3	A 4	B 1	B 2	B 3	C 1	C 2	C 3	C 4	D 1	D 2	D 3	D 4	
6	Programming for Engineers				▯	▯									▯		No
	Control Systems Engineering	▯				▯						▯		▯		▯	No
	Energy Engineering	▯		▯										▯		▯	No
	Power Electronics and Applications				▯	▯					▯						No
	Electrical Power Systems	▯			▯									▯		▯	No
	Undergraduate Major Project		▯			▯	▯	▯	▯			▯	▯	▯	▯		No

Level	Study module/unit	BEng (Hons) Engineering (Mechanical) (Top-Up) Programme outcomes															Available as single registerable module?
		A 1	A 2	A 3	A 4	B 1	B 2	B 3	C 1	C 2	C 3	C 4	D 1	D 2	D 3	D 4	
6	Programming for Engineers				▯	▯									▯		No
	Control Systems Engineering	▯				▯						▯		▯		▯	No

	Energy Engineering	☐		☐										☐		☐	No
	Advanced Mechanical Systems	☐				☐								☐		☐	No
	Advanced Thermofluids	☐			☐	☐								☐			No
	Undergraduate Major Project		☐			☐	☐	☐	☐			☐	☐	☐	☐		No

Annexe 3: 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.