



UNIVERSITY OF
PORTSMOUTH

COURSE SPECIFICATION

***BEng (Hons) Electronic Systems Engineering
(Top-up)***

COURSE SPECIFICATION

Course Title	BEng (Hons) Electronic Systems Engineering (Top-Up)
Final Award	<i>BEng (Hons)</i>
Exit Awards	Ordinary Degree BEng Electronic Systems Engineering
Course Code / UCAS code (if applicable)	U3736FTC/PTC
Mode of study	<i>Full time</i>
Mode of delivery	<i>Campus</i>
Normal length of course	13 months
Cohort(s) to which this course specification applies	<i>September 2025 onwards</i>
Awarding Body	<i>University of Portsmouth</i>
Teaching Institution	<i>University of Portsmouth</i>
Faculty	<i>Faculty of Technology</i>
School/Department/Subject Group	<i>School of Electrical and Mechanical Engineering</i>
School/Department/Subject Group webpage	https://www.port.ac.uk/about-us/structure-and-governance/organisational-structure/our-academic-structure/faculty-of-technology/school-of-electrical-and-mechanical-engineering
Course webpage including entry criteria	https://www.port.ac.uk/study/courses/undergraduate/be-ng-hons-electronic-systems-engineering-top-up
Professional and/or Statutory Regulatory Body accreditations	<i>None</i>
Quality Assurance Agency Framework for Higher Education Qualifications (FHEQ) Level	FHEQ Level 6

This course specification provides a summary of the main features of the course, identifies the aims and learning outcomes of the course, the teaching, learning and assessment methods used by teaching staff, and the reference points used to inform the curriculum.

This information is therefore useful to potential students to help them choose the right course of study, to current students on the course and to staff teaching and administering the course.

Further detailed information on the individual modules within the course may be found in the relevant module descriptors and the Course Handbook provided to students on enrolment.

Please refer to the [Course and Module Catalogue](#) for further information on the course structure and modules.

Educational aims of the course

The course aims to equip students to work as professional electronic engineers by building on an existing Foundation Degree (FD) / HND or equivalent qualifications appropriate to electronic engineering. The course also aims to offer a flexible and coherent programme of study, where students may achieve a BEng (Hons) award by obtaining 120 credits of study at level 6; the course should not normally take longer than 12 or 13 months, although students occasionally require a longer period, depending on their personal circumstances.

The core elements of the QAA engineering benchmark and AHEP4 in the context of this course are:

Science and Mathematics (SM)

Mathematical methods appropriate to electronic design, with particular reference to the methods required in advanced electronics systems, artificial intelligence, and signal processing.

Engineering Analysis (EA)

The application of mathematical and scientific principles underlying the solution of practical problems in electronics and electronic design, including the principles governing: analogue circuits and systems; digital systems, including hardware description languages; control or artificial intelligence systems; and telecommunication systems.

Design and Innovation (DI)

The principles and practice of the design of electronic systems, relevant ITC principles including computer-aided simulation and design using such software tools as Matlab®.

The Engineer and Society (ES)

Business and management practices in industry with a particular focus on project management, supply chain management and quality management. Sustainability and environmental considerations.

Engineering Practice (EP)

Solution of engineering problems to meet specified technical requirements as well as time and resource constraints. Project management methods, including planning, monitoring, control, and reporting.

It should be noted however that this course is not accredited by any UK Professional Engineering Institute such as the Institution of Engineering Technology (IET). Accreditation may be sought in future.

Course Learning Outcomes and Learning, Teaching and Assessment Strategies

The [Quality Assurance Agency for Higher Education \(QAA\)](#) sets out a national framework of qualification levels, and the associated standards of achievement are found in their [Framework for Higher Education Qualifications](#) document.

The Course Learning Outcomes for this course are outlined in the tables below.

A. Knowledge and understanding of:			
LO number	Learning outcome	Learning and Teaching methods	Assessment methods
A1	Advanced electronic systems, digital signal processing, control and artificial intelligence (SM, DI, and EA)	Lecture, Tutorial, exercises and computer simulation.	Coursework, examination.
A2	Mathematical methods appropriate to electronics (SM).	Lecture, Tutorial, exercises, discussions and computer simulation.	Coursework, examination.
A3	The role of computing and simulation in the solution of problems, including hardware description languages (SM, DI, and EP).	Lecture, Tutorial, exercises, discussions and computer simulation.	Coursework
A4	Practical design of electronic systems (DI, EP).	Lecture, Tutorial, exercises, discussions and computer simulation.	Coursework.
A5	Project management, quality management (SM, ES).	Lecture, Tutorial and discussions.	Coursework, examination.

B. Cognitive (Intellectual or Thinking) skills, able to:			
LO number	Learning outcome	Learning and Teaching methods	Assessment methods
B1	Select and apply appropriate knowledge of electronic principles to model and analyse systems (EA, EP).	Lecture, Tutorial, exercises, discussions.	Coursework, examination.
B2	Select and apply appropriate mathematical methods to model and analyse electronic systems (SM).	Lecture, Tutorial, exercises.	Coursework, examination.
B3	Select and apply computer-based design and simulation techniques (EA, DI, and EP).	Lecture, Tutorial, exercises.	Coursework, examination.
B4	Design, simulate and test electronic systems and subsystems to meet specified requirements (DI, EP).	Lecture, Tutorial, exercises, discussions.	Coursework, examination.
B5	Solve problems in a systematic and manageable manner (ES, EP).	Lecture, Tutorial, exercises.	Coursework, examination, Project report.

C. Practical (Professional or Subject) skills, able to:			
LO number	Learning outcome	Learning and Teaching methods	Assessment methods
C1	Apply relevant mathematical methods in developing solutions to problems in electronics (SM).	Lecture, Tutorial, exercises, discussions.	Coursework, examination.
C2	Design, simulate and evaluate electronic engineering systems (DI, EP).	Lecture, Tutorial, exercises, discussions.	Coursework.
C3	Search a range of sources for information pertinent to technical and professional tasks (SM, ES, and EP).	Lecture, Tutorial, exercises, discussions.	Coursework
C4	Plan, manage and undertake an engineering project, taking constraints into account (SM, ES, and EP).	Lecture, Tutorial, exercises, discussions.	Coursework.

D. Transferrable (Graduate and Employability) skills, able to:			
LO number	Learning outcome	Learning and Teaching methods	Assessment methods
D1	Manipulate and present information (EP).	Lecture, Tutorial, exercises, discussions.	Coursework, examination.
D2	Analyse scientific information in the solution of problems (SM).	Lecture, Tutorial, exercises, discussions.	Coursework, examination.
D3	Use information technology to handle text and data and for simulation and design (DI).	Lecture, Tutorial, exercises, discussions and computer simulation.	Coursework.
D4	Develop solutions in a creative manner, sometimes based on inadequate information (EA, DI, and EP).	Lecture, Tutorial, exercises, discussions and computer simulation.	Coursework.
D5	Communicate effectively in a variety of formats (EP) and work effectively to achieve goals (EP)	Lecture, Tutorial, exercises, and discussions.	Coursework

Academic Regulations

The current University of Portsmouth [Academic Regulations: Examination & Assessment Regulations](#) will apply to this course. Approved course exemptions can be found [here](#).

Support for Student Learning

The University of Portsmouth provides a comprehensive range of support services for students throughout their course, details of which are available at the [MyPort](#) student portal.

In addition to these University support services this course also provides...

Please add additional distinctive items where relevant or delete the sentence above.

Evaluation and Enhancement of Standards and Quality in Learning and Teaching

The University of Portsmouth undertakes comprehensive monitoring, review and evaluation of courses within clearly assigned staff responsibilities. Student feedback is a key feature in these evaluations, as represented in our [Policy for Listening to and Responding to the Student Voice](#) where you can also find further information.

Reference Points

The course and outcomes have been developed taking account of:

Insert additional reference points or delete as required

- [University of Portsmouth Curriculum Framework Specification](#)
- [University of Portsmouth Vision](#)
- [Office for Students Conditions of Registration](#)
- [University of Portsmouth Code of Practice for Work-based and Placement Learning](#)
- [Quality Assurance Agency UK Quality Code for Higher Education](#)
- [Quality Assurance Agency Qualification Characteristic Statements](#)
- [Quality Assurance Agency Subject Benchmark Statement](#) for **Engineering**
- Quality Assurance Agency Framework for Higher Education Qualifications Requirements of Professional and/or Statutory Regulatory Bodies: **N/A**
- Vocational and professional experience, scholarship and research expertise of the University of Portsmouth's academic members of staff
- National Occupational Standards

Changes to your course/modules

The University of Portsmouth has checked the information provided in this Course Specification and will endeavour to deliver this course in keeping with this Course Specification. However, changes to the course may sometimes be required arising from annual monitoring, student feedback, and the review and update of modules and courses.

Where this activity leads to significant changes to modules and courses there will be prior consultation with students and others, wherever possible, and the University of Portsmouth will take all reasonable steps to minimise disruption to students.

It is also possible that the University of Portsmouth may not be able to offer a module or course for reasons outside of its control, for example, due to the absence of a member of staff or low student registration numbers. Where this is the case, the University of Portsmouth will endeavour to inform applicants and students as soon as possible, and where appropriate, will facilitate the transfer of affected students to another suitable course.

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Document Details	
CSD Template date	<i>January 2025</i>
Author	<i>Dr Shamsul Masum</i>
Date of production and version number	<i>10/01/2025 v1</i>
Date of update and version number	<i>[Date] [Version number]</i>
Minimum student registration numbers	<i>15</i>