



UNIVERSITY OF
PORTSMOUTH

COURSE SPECIFICATION

BSc (Hons) Product Design and Innovation

Academic Standards, Quality and Partnerships
Department of Student and Academic Administration

March 2018

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COURSE SPECIFICATION

Please refer to the [Course Specification Guidance Notes](#) for guidance on completing this document.

Course Title	<i>Mechanical Engineering</i>
Final Award	<i>BSc (Hons) Product Design and Innovation</i>
Exit Awards	<i>CertHE Product Design and Innovation DipHE Product Design and Innovation</i>
Course Code / UCAS code (if applicable)	<i>C0961S</i>
Mode of study	<i>full time</i>
Mode of delivery	<i>Campus</i>
Normal length of course	<i>3 years, 4 years with placement</i>
Cohort(s) to which this course specification applies	<i>from September 2019 intake 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 Mechanical and Design Engineering</i>
School/Department/Subject Group webpage	Full URL
Course webpage including entry criteria	<i>http://www.port.ac.uk/courses/engineering/bsc-hons-product-design-and-innovation/</i>
Professional and/or Statutory Regulatory Body accreditations	<i>Institution of Engineering Designers (IED) Institution of Mechanical Engineers (IMechE)</i>
Quality Assurance Agency Framework for Higher Education Qualifications (FHEQ) Level	<i>level 6</i>

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 [Module Web Search](#) for further information on the course structure and modules.

Educational aims of the course

The aim of the course is to provide a broad education and to prepare the student for a career involved with the design and creation of industrially manufactured products. The educational experience will encompass the integration of the technological, visual, human, market and social aspects to develop creativity, knowledge understanding as well as skills required by product designers. In addition, and more generally, the course aims to:

- *Provide a challenging and stimulating study environment.*
- *Enable students to broaden their studies by including study units from outside their discipline as substitutes for degree option choices.*
- *Develop a range of key skills by means of opportunities provided in the study units.*
- *Accommodate student needs in relation to maximising their career potential by enabling them to develop knowledge, understanding and skills in their chosen subject area.*
- *Promote career aspirations by including study topics on general professional practice and study skills.*

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	Aesthetics, evolution of style and the use of material, colour, texture and proportion.	<i>lectures, tutorials, laboratory work</i>	<i>Courseworks, (eg working from design briefs).</i>
A2	The selection of materials and manufacturing processes based on specified requirements.	<i>lectures, tutorials</i>	<i>Exams, courseworks, laboratory work.</i>
A3	The design process and its influence on sustainability and the manufacturing process for defined artefacts.	<i>lectures, tutorials.</i>	<i>Exams, coursework, presentations.</i>
A4	Physical constraints as they affect the design and manufacture of a product.	<i>Lectures, tutorials, practical sessions.</i>	<i>Coursework.</i>
A5	The importance of commerce, ethics and codes of practice and the environment in the design of commercial products.	<i>Lectures, tutorials.</i>	<i>Exams, courseworks.</i>

B. Cognitive (Intellectual or Thinking) skills, able to:

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
B1	<i>Apply problem solving processes to develop solutions</i>	<i>Tutorials, laboratory work</i>	<i>Exams, coursework, laboratory work.</i>
B2	<i>Apply knowledge gained to the solution of problems.</i>	<i>Tutorials, laboratory work, group work.</i>	<i>Exams, coursework, presentations, laboratory work.</i>
B3	<i>Research and acquire increased personal knowledge base.</i>	<i>Lectures, tutorials, group work.</i>	<i>Coursework, presentations.</i>
B4	<i>Anticipate and accommodate change, and work within contexts of ambiguity, uncertainty and unfamiliarity.</i>	<i>Lectures, laboratory work, group work.</i>	<i>Coursework, presentations.</i>
B5	<i>Source and research relevant material, assimilating and articulating relevant findings.</i>	<i>Lectures, laboratory work, group work.</i>	<i>Coursework, presentations.</i>

C. Practical (Professional or Subject) skills, able to:

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
C1	<i>Present design ideas in a professional manner using manual and other technical visualisation techniques.</i>	<i>Lectures, tutorials.</i>	<i>Coursework, presentations.</i>
C2	<i>Plan, organise and practice design in a professional manner.</i>	<i>Lectures, tutorials.</i>	<i>As above.</i>
C3	<i>Think creatively in order to develop design and analytical solutions.</i>	<i>Lectures, tutorials.</i>	<i>As above.</i>
C4	<i>Manage project based work using appropriate tools.</i>	<i>Lectures, tutorials.</i>	<i>Coursework, presentations, especially the individual project.</i>

D. Transferrable (Graduate and Employability) skills, able to:

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
D1	<i>Communicate effectively using graphical, written and other viable means of communication.</i>	<i>Lectures, tutorials, practical sessions.</i>	<i>Coursework, presentations.</i>
D2	<i>Use IT to handle data, simulation and assist with design and testing.</i>	<i>Lectures, tutorials, practical sessions.</i>	<i>As above.</i>
D3	<i>Deal with numerical data as might be found in typical technological oriented situations.</i>	<i>As above.</i>	<i>Coursework, especially the individual project.</i>
D4	<i>Assess problem domains and formulate appropriate problem solving strategies.</i>	<i>As above.</i>	<i>As above.</i>
D5	<i>Work in teams to achieve goals but nevertheless be distinctively individual.</i>	<i>Tutorials, practical sessions, group work.</i>	<i>Coursework, presentations, especially group projects.</i>

Academic Regulations

The current University of Portsmouth [Academic Regulations](#) will apply to this course.

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 specialist laboratory facilities, support prior to, during and following the placement through Student Placement and Employability Centre (SPEC), including visits and advice from placement tutor. Students are able to access software (including specialist software used on their course) when off-campus as well as their learning resources (the Moodle VLE).

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.

The course has been accredited as fulfilling the requirements for Membership and Registered Product Designer (RProdDes) status of the Institution of Engineering Designers (IED). It has also been accredited by the Institution of Mechanical Engineers (IMechE) for Incorporated Engineer status (IEng).

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 Education Strategy 2016 - 2020](#)
- [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 Subject Benchmark Statement](#) for **Art and Design**
- [Quality Assurance Agency Framework for Higher Education Qualifications](#)
- Requirements of Professional and/or Statutory Regulatory Bodies: **Institution of Engineering Designers and the Institution of Mechanical Engineers.**
- Vocational and professional experience, scholarship and research expertise of the University of Portsmouth's academic members of staff
- National Occupational Standards

Disclaimer

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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