

# COURSE SPECIFICATION MEng Civil Engineering

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

### September 2021

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# **COURSE SPECIFICATION**

Please refer to the Course Specification Guidance Notes for guidance on completing this document.

Course Title	MEng Civil Engineering
Final Award	MEng
Exit Awards	CertHE, DipHE, BEng
Course Code / UCAS code (if applicable)	U0178PYC
Mode of study	full time
Mode of delivery	Campus
Normal length of course	4 years, 5 years with placement
Cohort(s) to which this course specification applies	September 2021 intake onwards
Awarding Body	University of Portsmouth
Teaching Institution	University of Portsmouth
Faculty	Faculty of Technology
School/Department/Subject Group	School of Civil Engineering and Surveying
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-civil- engineering-and-surveying
Course webpage including entry criteria	https://www.port.ac.uk/study/courses/meng-civil- engineering
Professional and/or Statutory Regulatory Body accreditations	Joint Board of Moderators
Quality Assurance Agency Framework for Higher Education Qualifications (FHEQ) Level	levels 4, 5, 6, 7

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 <u>Course and Module Catalogue</u> for further information on the course structure and modules.

### **Educational aims of the course**

To provide an educational base from which individual aspirations to Chartered status can develop and also to produce civil engineering graduates who are practical, articulate, numerate, literate, imaginative, versatile, confident and inquisitive.

The core elements of UK Standard for Professional Engineering Competence (UK-SPEC) are embedded in the programme learning outcomes. These are interpreted in the context of Civil Engineering as the following six key areas of learning:

### • Science and mathematics (SM)

Comprehensive understanding of mathematical methods and computer models appropriate to civil engineering and construction. Comprehensive understanding of the scientific principles underlying civil engineering and construction

### • Engineering analysis (EA)

Application of mathematical and engineering principles in the solution of practical problems relevant to civil engineering, including the use of software packages.

### • Design (D)

Principles and practice of the design of solutions in civil engineering. Assessment of alternative and innovative solutions. Specification of final design.

### • Economic, legal, social, ethical and environmental context (ES)

Extensive knowledge of the business and management practices in the construction industry including personnel, health and safety and risk issues. Sustainability and environmental considerations.

### • Engineering practice (EP)

Investigation of cutting edge practice in civil engineering including fieldwork, laboratory skills, and materials. Project planning management and implementation. Awareness of quality issues. Working effectively as part of a team and individually to achieve goals and develop responsibility, management and leadership.

### Additional general skills (AS)

Comprehensive understanding of professional and ethical responsibility of Civil Engineers. Effective interpersonal and communication skills. General skills for enhancing professional and career development.

### Course Learning Outcomes and Learning, Teaching and Assessment Strategies

The <u>Quality Assurance Agency for Higher Education (QAA)</u> sets out a national framework of qualification levels, and the associated standards of achievement are found in their <u>Framework for Higher Education</u> 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	Fundamental concepts, principles and theories of core subjects relating to civil engineering (SM, EA, EP).	lectures, tutorials, laboratory work, fieldwork and site visits.	examinations and coursework.

A2	Construction and business practice, economics and management EA, ES, EP).	lectures, tutorials, laboratory work, fieldwork and site visits, design and management projects	Examinations, coursework, reports
A3	Environmental considerations and constraints, sustainability and health and safety management (ES).	lectures, tutorials, laboratory work, fieldwork and site visits.	Examinations, coursework.
A4	Design and the integrated process (D, ES, EP).	lectures, exercises and a design and management project.	reports, individual or group presentations
A5	The industrial context of engineering and the varied roles of engineers in industry through project work and or first -hand Experience (Sandwich students) (EP).	lectures, exercises and project work. industrial placement of one academic year	portfolios

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

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
B1	Use mathematical and engineering analysis techniques to solve problems (SM, EA).	lectures, tutorials, practical work	examinations, coursework
B2	Conduct and report laboratory experiments and field investigations (EP).	laboratory exercises, fieldwork	coursework
В3	Synthesise information from a variety of sources in the solution of an integrated design problem and in the creation of new systems and processes (D, ES, AS).	individual and group projects	reports, individual or group presentations
B4	Plan, manage and undertake a report on a significant project (ES, EP, AS).	individual project	reports, presentations

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

LO	Learning outcome	Learning and	Assessment
number		Teaching methods	methods
C1	Use surveying and soil investigation equipment (EP).	Fieldwork,	coursework,
		laboratory exercises	reports
C2	Use standard and specialist laboratory equipment	Fieldwork,	coursework,
	and/or diving equipment (EP).	laboratory exercises	reports
C3	Use computers and IT tools for the solution of problems	computer practical/	coursework,
	(EA).	simulations	reports
C4	Design of major civil engineering systems, components	lectures, seminars	coursework,
	and processes (D, EP)	and project work.	reports

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

LO	Learning outcome	Learning and	Assessment
number		Teaching methods	methods

D1	Work effectively as an individual and as part of a team to achieve goals (ES, EP, AS).	group work, individual project	reports, individual or group presentations
D2	Communicate effectively in writing, orally, through graphical representations and drawing (EA, D, SM, AS).	lectures, seminars, group work	reports, individual or group presentations
D3	Apply analytical techniques, creativity and innovation to identify appropriate solutions for unfamiliar problems (EA, D).	lectures, tutorials, group work	coursework, reports
D4	Use IT to handle text, data, simulation and design (EA, D).	lectures, tutorials, computer practical work	coursework
D5	Effectively manage resources and time (AS)	lectures, seminars, group work	coursework, reports

# **Academic Regulations**

The current University of Portsmouth <u>Academic Regulations</u> will apply to this course. This also includes the <u>policy for recognition of prior learning</u>.

# **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 <u>MyPort</u> student portal.

In addition to these University support services this course also provides

- Extensive induction programme introduces the student to the University and their course.
- Each student has a personal tutor, responsible for pastoral support and guidance.
- Excellent Laboratory/Teaching facilities.
- Student course and unit handbooks provide information about the course structure and University regulations etc.
- Feedback is provided for all assessments.
- Personal Development Planning (PDP) for all awards.
- Support prior to and during placements.
- Maths support

# **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 <u>Policy for Listening to and Responding to the Student Voice</u> where you can also find further information.

# **Reference Points**

The course and outcomes have been developed taking account of:

- University of Portsmouth Curriculum Framework Specification
- University of Portsmouth Strategy

- 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: Joint Board of Moderators
- Vocational and professional experience, scholarship and research expertise of the University of Portsmouth's academic members of staff
- National Occupational Standards
- UK Standard for Professional Engineering Competence (UK-SPEC)
- Subject Benchmark Statements for Engineering

### 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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### **Document details**

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