



**UNIVERSITY OF
PORTSMOUTH**

COURSE SPECIFICATION

MSc Civil Engineering

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Course Title	MSc Civil Engineering
Final Award	MSc (180 credits)
Exit Awards	PGCert (60 credits) or PGDip (120 credits).
Course Code / UCAS code (if applicable)	P3388FTC/ P3388PTC
Mode of study	Full time/Part time
Mode of delivery	Campus
Normal length of course	1 year/ 2 years
Cohort(s) to which this course specification applies	September 2023 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/postgraduate-taught/msc-civil-engineering#overview
Professional and/or Statutory Regulatory Body accreditations	The Joint Board of Moderators representing IStructE, ICE, IHIE and IHT
Quality Assurance Agency Framework for Higher Education Qualifications (FHEQ) Level	Level 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 [Course and Module Catalogue](#) for further information on the course structure and modules.

Educational aims of the course

The MSc Civil Engineering course aims to provide students with a comprehensive and advanced understanding of civil engineering principles, practices, and methodologies. Through this course, students will develop a diverse range of technical skills, critical thinking abilities, and professional competencies that will prepare them to excel in the dynamic field of civil engineering. The following educational aims outline the core objectives of the course which are in respect to *the Accreditation of Higher Education Programmes (AHEP)*.

- **Proficiency in civil engineering principles:** This course aims to equip students with a deep and integrated knowledge of civil engineering principles which helps students to tackle complex engineering challenges effectively (*AHEP ref: M1, M2, M3, M4, M5*).
- **Critical thinking and problem-solving skills:** This course seeks to cultivate critical thinking, analytical reasoning, and problem-solving skills in students. Through integrated design projects, case studies and research modules students will learn to address engineering problems with creativity, precision, and a systematic approach (*AHEP ref: M1, M2, M4, M5*).
- **Application of advanced techniques:** This course aims to expose students to cutting-edge engineering tools, software and technologies used in the civil engineering industry. Students will develop proficiency in using these tools for analysis, design, simulation enhancing their ability to propose innovative and sustainable engineering solutions (*AHEP ref: M2, M3, M5*).
- **Sustainable and ethical engineering practice:** This course emphasises the importance of sustainable development and ethical consideration in civil engineering. Students will be encouraged to integrate environmental, social and economic aspects into their engineering design, fostering a commitment to responsible engineering practices (*AHEP ref: M2, M4, M5, M7, M8, M9, M10, M11, M12, M13, M14, M15, M16, M17, M18*).
- **Research and innovation:** The course aims to foster a research-oriented mindset among students. They will have the opportunity to engage in research projects enabling them to contribute to the advancement of civil engineering knowledge and explore novel solutions to industry challenges (*AHEP ref: M1, M2, M3, M4, M5, M7, M8*).
- **Effective communication and collaboration:** This course aims to enhance students' communication, presentation and teamwork skills. By participating and engaging in group design projects, seminars and interdisciplinary activities, students will develop the ability to collaborate effectively with diverse stakeholders, fostering leadership and interpersonal competencies (*AHEP ref: M16, M17*).
- **Diversity, equality, and inclusion:** The course aims to create an inclusive learning environment that celebrates diversity and promotes equity. Students will be encouraged to embrace diverse perspectives and respect differences fostering a culture of openness and understanding within the civil engineering community. The course also seeks to develop students' awareness of global engineering practices, cultural diversity and international challenges (*AHEP ref: M11*).

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	Ideas, concepts, research methodologies and arguments at an advanced level of study in civil engineering (<i>AHEP ref: M1, M2, M3, M4, M5</i>)	Lectures, tutorials and seminars as appropriate and directed reading and guided research.	Examinations, group and individual coursework, oral presentations and individual reports.
A2	Critical evaluation of current research (<i>AHEP ref: M1, M2, M4, M5</i>)		
A3	Sustainable design, health and safety and security risk management and quality management in civil engineering (<i>AHEP ref: M5, M6, M7, M8, M9, M10, M14</i>)		
A4	Appropriate models for solving problems in civil engineering, and the ability to assess the limitations of particular cases (<i>AHEP ref: M2, M4, M5, M7</i>)		
A5	Effective project management strategies, project management tools and/or techniques (<i>AHEP ref: M3, M13, M15</i>).		

B. Cognitive (Intellectual or Thinking) skills, able to:			
LO number	Learning outcome	Learning and Teaching methods	Assessment methods
B1	Analyse and critically examine different forms of discourse (<i>AHEP ref: M2, M3, M4, M14</i>)	Lectures, tutorials and seminars as appropriate and directed reading and guided research.	Examinations, group and individual coursework, oral presentations and individual reports.
B2	Conceptualise, investigate and develop project management techniques, utilising knowledge from the forefront and limits of the discipline (<i>AHEP ref: M2, M4, M13, M15</i>).		
B3	Synthesise projects that integrate technical, environmental and legal requirements (<i>AHEP ref: M2, M4, M5, M6, M7, M14</i>).		
B4	Exercise informed and reflective judgement in the research and formulation of briefs as relevant to specific contexts and circumstances in the development of economic and sustainable infrastructure (<i>AHEP ref: M2, M4, M13, M15</i>).		
B5	Critically evaluate advanced research and methodologies and argue alternative approaches. gather, integrate and synthesise material, its significance within appropriate intellectual frameworks and apply in self-directed and original ways as part of autonomous research, apply knowledge and skills in resolving conflicting requirements within projects in the built environment (<i>AHEP ref: M1, M2, M3, M4, M5, M7, M8, M9, M10, M11, M14, M15</i>)		

C. Practical (Professional or Subject) skills, able to:			
LO number	Learning outcome	Learning and Teaching methods	Assessment methods
C1	Demonstrate expertise in the utilisation of managerial concepts, processes, tools and techniques (<i>AHEP ref: M3, M5, M6, M12, M13</i>).	Lectures, tutorials and seminars as appropriate and directed reading and guided research.	Examinations, group and individual coursework, oral presentations and individual reports.
C2	Develop ideas in ways which demonstrate adaptability and imagination and apply them to new situations (<i>AHEP ref: M2, M5, M7</i>).		
C3	Use technical software similar to that used in professional practice (<i>AHEP ref: M3, M5, M6, M12, M13</i>).		
C4	Initiate, develop and implement distinctive management solutions (<i>AHEP ref: M2, M14, M15, M17</i>).		
C5	Confidently and competently use skills appropriate to professional communications, apply scholarly conventions of academic writing consistently and accurately (<i>AHEP ref: M14, M16, M17, M18</i>).		

D. Transferrable (Graduate and Employability) skills, able to:			
LO number	Learning outcome	Learning and Teaching methods	Assessment methods
D1	Demonstrate advanced communication skills in appropriate formats (<i>AHEP ref: M15, M16, M17, M18</i>).	Lectures, tutorials and seminars as appropriate and directed reading and guided research.	Examinations, group and individual coursework, oral presentations and individual reports.
D2	Advance the ability to present an effective, coherent and sustained argument and attend to the critical responses of others (<i>AHEP ref: M15, M16, M17, M18</i>).		
D3	Use IT effectively and appropriately to select, analyse, present and communicate information from a variety of sources (<i>AHEP ref: M3, M5, M6, M7, M11, M17</i>).		
D4	Work autonomously and in groups, prioritising and exercising management of workload (<i>AHEP ref: M15, M16, M17, M18</i>).		

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.

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:

- [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](#)
- Accreditation is sought on an ongoing basis from the **Joint Board of Moderators** operating under licence from the **UK Engineering Council**, with learning outcomes being mapped against those set out under Accreditation of Higher Education Programmes (AHEP) version 4
- 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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