Programme Specification

Civil Engineering {Foundation} [Frenchay]

Version: 2024-25, v1.0, 01 Aug 2023

Contents

Section 1: Key Programme Details

Part A: Programme Information

Programme title: Civil Engineering {Foundation} [Frenchay]

Highest award: BEng (Hons) Civil Engineering

Interim award: BEng Civil Engineering

Interim award: DipHE Civil Engineering

Interim award: CertHE Civil Engineering

Awarding institution: UWE Bristol

Affiliated institutions: Not applicable

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: Yes

Credit recognition: No

School responsible for the programme: CATE School of Architecture and Environment, College of Arts, Technology and Environment

Contributing schools: Not applicable

Professional, statutory or regulatory bodies:

Joint Board of Moderators

Apprenticeship: Not applicable

Mode of delivery: Full-time, Sandwich

Entry requirements: For the current entry requirements see the UWE public website.

For implementation from: 01 September 2024

Programme code: H29K13

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: The award is designed and structured to provide an industry recognised, intellectually demanding, engaging and outstanding learning Programme, which equips graduates with enhanced employability as its overall objective, and tools to respond to the Climate Emergency.

Educational Aims: On graduation from this Programme, a student will:

-Have knowledge, experience and understanding of engineering science necessary to develop engineering solutions and processes for an effective career in Civil Engineering.

-Through the enhanced experiential team-work, project-based learning Programme, civil engineering graduates will have an enhanced employability at the start of their careers.

-Have gained effective problem-solving skills and experience both within the specialisms of civil engineering and more widely through cross boundary activities within other engineering disciplines.

-Have knowledge, confidence and understanding to effectively contribute to sustainable built environment development and the mitigations and adaptions necessary to respond to the Climate Emergency.

-Have gained the numerical skills appropriate and necessary for a potential international career.

-Have the creative skills and innovative ability to synthesize solutions to complex

real-world problems with a holistic systems approach.

-Be able to reflect critically upon their learning and understanding, as the foundation for continuing professional development and progression to Chartered Engineer.

-Have practiced skills in communicating effectively with other professionals from a variety of disciplines, clients and the public, with understanding and respect for the objectives and values of other stakeholders.

Programme Learning Outcomes:
On successful completion of this programme graduates will achieve the following learning outcomes.

Programme Learning Outcomes

PO1. Ability to apply critical civil engineering knowledge and theory into practice through practice-led and research-informed learning, demonstrating a comprehensive understanding of appropriate civil engineering laboratory testing and techniques.

PO2. Apply the engineering principles appropriate to analyse key engineering processes in Civil Engineering infrastructures.

PO3. Define and investigate a problem considering the impact on the natural and built environment, sustainability, climate emergency and associated ethical issues, health and safety and risk management.

PO4. Develop creative and innovative design solutions following appropriate standards and codes of practice, embracing global sustainable development goals, cost drivers and functionality throughout the whole life cycle.

PO5. Model civil engineering systems to be able to specify and assess technical designs to a relevant industry standard.

PO6. Ability to communicate clearly and coherently using various general and engineering communication processes either as individuals or as members of a team.

PO7. Reflect on their learning in the contexts of ethics, climate change and broader professional responsibilities, exhibiting an appreciation of complexity and recognition of the value of continuing professional development.

Part B: Programme Structure

Year 1

Full-time and Sandwich students must take 120 credits from the modules in Year 1.

The programme is designed as a BEng Honours degree allowing students to progress to study at Masters level and hence complete the Educational requirements for Chartered Engineer status.

Students who completed Level 3 in 2023/24 will then transfer to the new programme in Level 4 from 2024/25.

Year 1 Compulsory modules (Full-time and Sandwich)

Full-time and Sandwich students must take 120 credits from the modules in Compulsory Modules (Full-time and Sandwich).

Module Code	Module Title	Credit
UFMFEG-30-0	Engineering Experimentation 2024-25	30
UFMFHG-15-0	Foundation Group Project 2024-25	15
UFMFBG-30-0	Foundation Mathematics: Algebra and Calculus 2024-25	30
UFMFAG-30-0	Foundation Mechanics 2024-25	30
UFMFCG-15-0	Introduction to Mechatronics 2024-25	15

Year 2

Full-time and Sandwich students must take 120 credits from the modules in Year 2.

The programme is designed as a BEng Honours degree allowing students to progress to study at Masters level and hence complete the Educational requirements for Chartered Engineer status.

Year 2 Compulsory Modules (Full-time and Sandwich)

Full-time and Sandwich students must take 120 credits from the modules in Compulsory Modules (Full-time and Sandwich).

Module Code	Module Title	Credit

UBGMKD-15-1	Civil Engineering Design and Technology 2025-26	15
UBGMX1-30-1	Civil Engineering Field Skills and Surveying 2025-26	30
UBGMY1-15-1	Construction Materials and Sustainability 2025-26	15
UFMFKS-30-1	Engineering Practice 1 2025-26	30
UBGMXQ-30-1	Engineering Principles for Civil Engineering 2025-26	30

Year 3
Full-time and Sandwich students must take 120 credits from the modules in Year 3.

Year 3 Compulsory Modules (Full-time and Sandwich)
Full-time and Sandwich students must take 120 credits from the modules in Compulsory Modules (Full-time and Sandwich).

Module Code	Module Title	Credit
UBGJFN-15-2	Computational Civil Engineering 2026-27	15
UFMFQS-15-2	Engineering Practice 2 2026-27	15
UFMFRS-15-2	Engineering Research 2026-27	15
UBGJCA-30-2	Hydraulics and its Applications 2026-27	30
UBGJFQ-30-2	Integrated Structural Engineering 2026-27	30
UBGMUQ-15-2	Soil Mechanics 2026-27	15

Year 4
Sandwich students must take 15 credits from the modules in Year 4.
Full-time students must take 120 credits from the modules in Year 4.

Year 4 Compulsory Modules (Full-time)
Full-time students must take 105 credits from the modules in Compulsory Modules (Full-time).

Module Code	Module Title	Credit
UBGMM3-15-3	Advanced Structural Analysis 2027-28	15
UFMFX8-30-3	Engineering Project 2027-28	30
UBGMWQ-15-3	Geotechnics 2027-28	15
UBGLY9-15-3	Infrastructure Design and Implementation Project 2027-28	15
UFMFNQ-15-3	Professionalism for Engineers 2027-28	15
UBGJFP-15-3	Transport Engineering Design 2027-28	15

Year 4 Compulsory Modules (Sandwich)
Sandwich: Students undertaking the Sandwich programme with a placement year take the following module:

Module Code	Module Title	Credit
UFMF89-15-3	Industrial Placement 2027-28	15

Year 4 Optional Modules (Full-time)
Full-time students must select 15 credits from Optional Modules (Full-time).

Module Code	Module Title	Credit
UBGL66-15-3	Assessment and Mitigation of Natural and Anthropogenic Hazards 2027-28	15
UBGL68-15-3	Engineering Geology 2027-28	15
UBGLXP-15-3	Traffic Management and Safety 2027-28	15
UBGL67-15-3	Water Management 2027-28	15

Year 5
Sandwich students must take 105 credits from the modules in Year 5.

Year 5 Compulsory Modules (Sandwich)
Sandwich students must take 90 credits from the modules in Compulsory Modules (Sandwich).

Module Code	Module Title	Credit
UBGMM3-15-3	Advanced Structural Analysis 2028-29	15
UFMFX8-30-3	Engineering Project 2028-29	30
UBGMWQ-15-3	Geotechnics 2028-29	15
UBGLY9-15-3	Infrastructure Design and Implementation Project 2028-29	15
UBGJFP-15-3	Transport Engineering Design 2028-29	15

Year 5 Optional Modules (Sandwich)
Sandwich students must take 15 credits from the modules in Optional Modules (Sandwich).

Module Code	Module Title	Credit
UBGL66-15-3	Assessment and Mitigation of Natural and Anthropogenic Hazards 2028-29	15
UBGL68-15-3	Engineering Geology 2028-29	15
UBGLXP-15-3	Traffic Management and Safety 2028-29	15
UBGL67-15-3	Water Management 2028-29	15

Part C: Higher Education Achievement Record (HEAR) Synopsis

This Programme of study requires students to develop a sound intellectual knowledge and understanding of civil engineering science, design and application; enabling creative and innovative synthesis of holistic solutions to complex problems. Alongside these skills students are required to develop effective communication across multiple formats, to technical and non-technical audiences.

Part D: External Reference Points and Benchmarks

Set out which reference points and benchmarks have been used in the design of the Programme:

QAA UK Quality Code for HE:

-Framework for higher education qualifications (FHEQ)
-Subject benchmark statements : Subject Engineering 2023

Part E: Regulations

Approved to variant University Academic Regulations and Procedures.

It is the Award Board's responsibility to determine whether the student's attainment at level 3 is sufficient to progress to level 4.

The following variant regulation for compensation applies to students on this award which has been accredited by a PSRB that comes under the auspices of Engineering Council UK.

The variant applied to Level 4 September 2023 intake onwards (Note - Compensation applied to all levels not just new students).

- The permitted maximum compensated credit is 30 credits for a Bachelors or Integrated Masters degree and a maximum of 20 credits in a Masters degree.

- The awarding of compensated credit may be considered for an overall module mark in the range 30% to 39%.

No excused credit.