Programme Specification

Civil Engineering {Apprenticeship-UWE} [Frenchay]

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Section 1: Key Programme Details

Part A: Programme Information

Programme title: Civil Engineering {Apprenticeship-UWE} [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

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: No

Credit recognition: No

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

Professional, statutory or regulatory bodies:

Joint Board of Moderators

Apprenticeship: Apprenticeship Standard ST0417

Modes of delivery: Full-time

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

For implementation from: 01 September 2024

Programme code: H29P13

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 apprenticeship, aligned to Apprenticeship Standard ST0417, which enables graduates to enhance and accelerate their career prospects, and equips them with tools to respond to the Climate Emergency.

Apprenticeship Standard ST0417 is a non-integrated apprenticeship. In order to complete the apprenticeship, learners must fulfil the gateway requirements as stipulated in the Standard, and successfully complete the End-Point Assessment, which is run by an external End-Point Assessment Organisation.

Features of the programme:

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.

Assessment strategy: Learning will be assessed through a range of assessment methods appropriate to the learning outcomes of the modules and the Programme, including:

- Coursework
- Laboratory experiment exercises and reports
- Computer-based exercises
- Presentations
- Poster/Conference Presentations
- Design projects
- Final- Year Dissertation
- Self-reflective writing
- Portfolios
- Field Site exercises
- Examinations
- On-line tests and quizzes

The assessment strategy has been developed to expand progressive assessment where appropriate, to reinforce engagement and is informed by industry working approaches. Where students are required to work with other students and submit coursework as a group, these are typically assessed through a combination of peer- review and individual contribution. Written invigilated examinations have been minimized, with time managed online assessments and open book approach being adopted. All assessments are enquiry-based and assess particular Learning Outcomes.

Summative assessment feedback will be provided through a range of methods appropriate to the assessments including verbal feedback sessions, double marking process with written feedback and formative assessment feedback through small groups tutorials, emails and staff office hours for most modules.

Student support: Student support includes:

The info point services: This comprehensive student support service includes : Advice on Academic regulations and procedures, Extenuating circumstances, Module choices, student records including enrolment, and accessing student's records and what to do if unforeseen circumstances affect their studies.

Induction: All students will be introduced to the School and its resources via a series of Health and Safety and introductory sessions. All teaching is sequential and students will be fully supported in acquiring and applying the necessary learning skills.

The Library: The library offers information skills workshops to students. There are opportunities in the curriculum that enable students to develop information retrieval and evaluation skills in order to identify appropriate resources effectively. Such support is available through the Library Services web pages, including interactive tutorials on finding books and journals, evaluating information and referencing. Students will also be introduced to and encouraged to use online databases.

Career Planning and preparation: The programme aims to enhance and accelerate the career prospects of our apprenticeship graduates and as such links directly to the University's employability strategy. The Programme has established and growing partnerships within civil engineering industries which inform the development and delivery of the curriculum and maintain the programme's currency and relevance within the sector.

UWE careers offer a wide range of accessible resources and services including one-one coaching and workshops.

Support for students with additional needs: Consideration will be given to ensure and enable students with additional needs are able to participate in all aspects of the academic and social life of the institution. The Programme team will monitor the effectiveness of provision for students with additional needs and identify opportunities for enhancement. There is a comprehensive and robust student support structure throughout the University that the students can access at any time.

Part B: Programme Structure

Year 1

Students must take 75 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. The BEng Honours degree forms part of the apprenticeship requirements of Standard ST0417. To complete the apprenticeship, all gateway requirements must be fulfilled and the external End-Point Assessment must be successfully passed.

Year 1 Compulsory Modules

Students must take 75 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
UBGMY1-15-1	Construction Materials and Sustainability 2024-25	15
UFMFKS-30-1	Engineering Practice 1 2024-25	30
UBGMXQ-30-1	Engineering Principles for Civil Engineering 2024-25	30

Year 2

Students must take 75 credits from the modules in Year 2.

Year 2 Compulsory Modules

Students must take 75 credits from the modules in Compulsory Modules .

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
UBGJFQ-30-2	Integrated Structural Engineering 2025-26	30

Year 3
Students must take 75 credits from the modules in Year 3.

Year 3 Compulsory Modules
Students must take 75 credits from the modules in Compulsory Modules .

Module Code	Module Title	Credit
UBGJFN-15-2	Computational Civil Engineering 2026-27	15
UFMFQS-15-2	Engineering Practice 2 2026-27	15
UBGMNU-30-2	Hydraulics and Engineering Applications 2026-27	30
UBGMUQ-15-2	Soil Mechanics 2026-27	15

Year 4
Students must take 75 credits from the modules in Year 4.

Year 4 Compulsory Modules
Students must take 75 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
UBGMM3-15-3	Advanced Structural Analysis 2027-28	15
UFMFRS-15-2	Engineering Research 2027-28	15
UBGMWQ-15-3	Geotechnics 2027-28	15

UBGLY9-15-3	Infrastructure Design and Implementation Project 2027-28	15
UBGJFP-15-3	Transport Engineering Design 2027-28	15

Year 5
Students must take 60 credits from the modules in Year 5.

Year 5 Compulsory Modules
Students must take 45 credits from the modules in Compulsory Modules .

Module Code	Module Title	Credit
UFMFX8-30-3	Engineering Project 2028-29	30
UFMFNQ-15-3	Professionalism for Engineers 2028-29	15

Year 5 Optional Modules
Students must take 15 credits from the modules in Optional Modules.

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

Institute for Apprenticeships & Technical Education - Apprenticeship Standard ST0417

Part E: Regulations

Approved to variant University Academic Regulations and Procedures.

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.