Programme Specification

Software Engineering {Foundation} [Frenchay]

Version: 2026-27, v2.0, Validated

Contents

Section 1: Key Programme Details

Part A: Programme Information

Programme title: Software Engineering {Foundation} [Frenchay]

Highest award: BSc (Hons) Software Engineering

Interim award: BSc Software Engineering

Interim award: DipHE Software Engineering

Interim award: CertHE Software Engineering

Awarding institution: UWE Bristol

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: Yes

Credit recognition: No

School responsible for the programme: CATE School of Computing and Creative Technologies, College of Arts, Technology and Environment

Professional, statutory or regulatory bodies: Not applicable

Modes of delivery: Full-time, Sandwich

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

For implementation from: 01 September 2025

Programme code: I3NG13

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: This programme inspires students to create business-oriented software systems, emphasising ethical practice and strong industry partnerships - globally connected but locally grounded.

The foundation year acts as a vital stepping stone into the first year of the degree, designed to support students from diverse educational backgrounds in developing the broad academic and professional fundamentals required for higher-level study. Rather than focusing narrowly on subject-specific content, it provides a wide-ranging introduction to essential skills and concepts—including computational thinking, problem solving, academic literacy, project management, and effective communication. This generalist approach ensures that all learners, regardless of prior experience, build confidence in the core principles that underpin university-level learning. Alongside these transferable skills, students are introduced to best practices relevant to their subject area, laying the groundwork for deeper, discipline-specific engagement in subsequent years.

Features of the programme: Not just coding – we look at all aspects of software development, from initial stakeholder analysis, through design coding and testing. We also look at higher level business processes that define how different components of the business work together to deliver customer value.

Hands-on approach that focuses on the practice of Software Engineering through simulated projects, in-house collaboration, and external consultancy.

Professional Skills are key to student development, including presentation skills, team-work, reflective practice, ethics and sustainability, and building a positive professional profile.

Future proofed education – not just training, but a focus on core software engineering skills.

Employer engagement – Hone skills with practical consultancy projects in

collaboration with local companies and charities.

A placement year is optional, nonetheless, students are strongly encouraged to take up this opportunity. The University and the School provide support in preparation for the placement in a number of ways. For example, the School arranges a series of talks from former placement students and industrialists, aimed at illustrating the benefits of the placement year. Support in applying for placements is also provided through CV workshops, advertising of placement vacancies and more general information on careers and employability. Students who elect not to do a year-long placement are encouraged to gain work experience in other ways, for example through volunteering, summer internships, and entrepreneurial schemes.
If a student opts to take a placement year, they must also take the relevant Level 6 module, while they are undertaking the placement.

Educational Aims: The educational aims of the programme are to:

Provide students with a broad background understanding of business operations, procedures and culture, as applicable to a career in an IT environment.

Enable students to recognise the nature, role and importance of information systems within business organisations and the importance of information security.

Develop students' knowledge and practical skills to select and employ appropriate technologies, tools, techniques and methods for understanding and developing information systems in business contexts.

Develop deep technical competence in the software development process as applied in business.

Equip students to play a key role in software project management.

Develop both personal and inter-personal skills to enable the students to work closely and communicate with others in all aspects of the software development process.

Provide students with a set of problem-solving and modelling skills appropriate to IT related business systems development and operations.

Enable the students to play a central role in an IT project; and gain business experience in a project oriented environment.

Develop the students' critical, evaluative team working and problem-solving abilities that will be valuable to them in any career.

Continue the development of those general study skills that will enable students to become independent, lifelong learners including career and employability awareness.

Programme Learning Outcomes:

On successful completion of this programme graduates will achieve the following learning outcomes.

Programme Learning Outcomes

PO1.   Design and validate software requirements specifications using structured approaches such as use cases and formal models, ensuring they are complete, unambiguous, and correct.

PO2.   Analyse, design, and justify software architectures and system designs, defining components, their relationships, and underlying principles to ensure effective implementation.

PO3.   Develop and verify software through effective coding, debugging, and testing practices to deliver reliable, high-quality systems.

PO4.   Apply software quality assurance and configuration management practices across the development lifecycle to ensure systems meet stakeholder requirements.

PO5.   Plan, manage, and evaluate software projects to balance technical goals and deadlines, applying principles of software engineering economics to support informed decision-making and business objectives.

PO6.   Evaluate and apply software engineering process models and improvement strategies, aligning them with business processes to support organisational goals.

PO7.   Apply and evaluate software engineering models and methods, including semi-formal representations such as UML, to analyse, specify, and design software systems.

PO8.   Design and integrate security as a cross-cutting concern throughout the software engineering process, embedding it as a critical quality attribute across all activities.

PO9.   Critically evaluate professional, ethical, and sustainability responsibilities in software engineering practice, recognising their long-term impact on society.

PO1 0.   Demonstrate the application of theoretical foundations of computing, and show how artificial intelligence can be applied to enhance software development practice.

Assessment strategy: Students will be bound by the general assessment regulations of the University. The University regulations provide a framework for the assessment of students' competence, knowledge and understanding, and the grading of students for progression and the conferring of awards. It allows, and expects, staff to give feedback to students and to evaluate the effectiveness of their own teaching.

Assessment is part of the process of helping students to learn and is intended to support them in developing knowledge and understanding as set out in sections three and four of this document. In addition, assessment aids the development of a range of cognitive and intellectual skills, and techniques. Forms of assessment are varied and include in-class tests, group and individual projects, presentations, reflective writing and practical work.

The process of reflection is explicit in many assessments and implicit in them all; alongside feedback from assessments, it is integral to the development of independent learning and student skills of self-assessment. Additionally, feedback is an important means of motivating students to further learning. Assessment is also an important vehicle for the development of a range of transferable skills.

Moderation and verification of assessments at a programme level provides information on overall levels of attainment and ensures that standards are maintained, and is a useful indicator of any areas where extra scrutiny may be needed.

The procedures of assessment involve a number of mechanisms to ensure validity and reliability. These include the moderation of all assessments and their marking schemes and assessment criteria, by a peer and by the External Examiner.

As they progress, students are increasingly expected to undertake independent study and research activities, in particular when completing the practice and project elements of the course. The project will be facilitated by a traditional summative assessment approach at the culmination of the work, however, there will be extensive use of formative feedback, milestones, and guidance from staff during the project (and other, independent-study and research-based assessment undertaken by students); the practice based modules are assessed iteratively, for example by portfolio.

Students will receive feedback, particularly during the practical and self-study elements of the programme to ensure they can keep track of their progress and development. This will also be a key factor in ensuring student engagement and retention on the programme of study. Where possible and practical, verbal, face-to-face feedback will be the preferred method of delivery; this is particularly appropriate where students are expected to present and defend their work. This is becoming increasingly important in a world with ubiquitous AI, where written assessment must be thoroughly scrutinised.

All of the skills are demonstrated in varying degrees in all assessments with the exception of teamwork, which is required in important elements of the coursework, and IT skills, needed for most of the coursework. It would be impossible to progress to completion on the award without demonstrating a basic competence in all of these skills. These skills are demonstrated in a variety of contexts including:

Examination.

Poster presentations.

Individual and group projects.

Practical assignments.

Portfolio of exercises.

Student support: Academic Support

Academic advice and support is the responsibility of the staff delivering the module in question. Staff are expected to be available outside normal timetabled hours, either by appointment or during published "surgery" hours, in order to offer advice and guidance on matters relating to the material being taught and on its assessment.

Student Experience Coaches

Our Student Experience Coaches are there to help students identify what is important to them and develop plans for achieving their objectives. Engaging with a Student Experience Coach enables students to define direction, address obstacles, and accomplish their aims. Sessions can be held online or in person, and can be offered as a single meeting or on an ongoing basis, depending on student needs.

Peer Assisted Learning (PAL)

The University operates a Peer Assisted Learning Scheme in which Level 5 students are recruited to provide peer support to Level 4 students on selected modules.

Computing Facilities.

The School offers specialised computing facilities and user support alongside the general University provisions. Their nature and extent changes from time to time, as hardware and software provision is updated to follow technological change and as availability of resources permits. Wireless Connectivity is available throughout the University including the library. This enables students to work in small groups in a variety of formal and informal spaces while also being able to access library catalogues, the University's Virtual Learning Environment (VLE) and the internet.

In addition, extra industry sessions will focus on employability, including career development, placement opportunities and internships. Recent graduates will lead

alumni sessions to provide students with an insight into the nature of their day-to-day working life.

Part B: Programme Structure

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

Module Code	Module Title	Credit
UFCEV3-30-0	Professional and Communication Skills 2026-27	30
UFCEUS-30-0	Foundation Project 2026-27	30
UFCEUP-30-0	Computational Thinking 2026-27	30
UFCEUF-30-0	Introduction to Speciality 2026-27	30

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

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
UFCFFS-30-1	Foundations of Computing 2027-28	30
UFCEV6-30-1	Information Systems Development 2027-28	30
UFCFC3-30-1	Introduction to OO Systems Development 2027-28	30
UFCF83-30-1	IT Practice: Skills, Models and Methods 2027-28	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 (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCFV4-30-2	Data, Schemas and Applications 2028-29	30
UFCFW4-30-2	Design and Analysis of Data Structures and Algorithms 2028-29	30
UFCFN6-30-2	IT Practice: Collaborative Project 2028-29	30
UFCFB6-30-2	Object-Oriented Systems Development 2028-29	30

Year 4

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

Year 4 Compulsory Modules (Full Time)

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

Module Code	Module Title	Credit
UFCESX-15-3	Artificial Intelligence for Software Development 2029-30	15
UFCESY-15-3	Professional Software Engineering 2029-30	15
UFCFAF-30-3	Development of Information Systems Projects 2029-30	30
UFCFP6-30-3	IT Practice: Consultancy Project 2029-30	30
UFCFFF-30-3	Software Development Project 2029-30	30

Year 4 Compulsory Modules (Sandwich)

Sandwich students on placement must take 15 credits from the modules in Compulsory Modules (Sandwich)

Module Code	Module Title	Credit
UFCFE6-15-3	Professional Experience 2029-30	15

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

Year 5 Compulsory Modules (Sandwich)
Sandwich students must take 105 credits from the modules in Compulsory Modules (Sandwich).

Module Code	Module Title	Credit
UFCESX-15-3	Artificial Intelligence for Software Development 2030-31	15
UFCFAF-30-3	Development of Information Systems Projects 2030-31	30
UFCFP6-30-3	IT Practice: Consultancy Project 2030-31	30
UFCFFF-30-3	Software Development Project 2030-31	30

Part C: Higher Education Achievement Record (HEAR) Synopsis

This programme provides graduates with the mix of skills and capabilities required by UK business for the specification, design and delivery of IT systems, services and solutions in a range of business contexts and application domains.

It develops technically competent individuals who think and communicate effectively and who can conduct inquiry, solve problems, undertake critical analysis and deliver effective software systems solutions in a constantly changing business context.

It provides a solid foundation for lifelong learning, emphasising the development of knowledge, skills and professional values essential to the practice of systems development.

Part D: External Reference Points and Benchmarks

In designing this programme, the School has drawn upon the following external reference points:

UWE Bristol Strategy 2030
UWE Enhancement framework for academic programmes and practice
UK Quality Code for Higher Education 2024
The Software Engineering Body of Knowledge (SWEBOK).

The QAA UK quality code for Higher Education Qualifications describes the attributes and skills expected of Honours graduates. It is our view that the learning outcomes of the programme are fully consistent with the qualification descriptor in the Framework, and hence that graduates are able to demonstrate that they meet the expectations of the Framework.

The Enhancement Framework (EF), developed in line with the principles of Strategy 2030, acts as a key reference point for shaping the Software Engineering programme. Alignment of programme development with the EF ensures that curriculum design reflects the University's commitment to outstanding learning.

The Software Engineering programme is closely aligned with UWE Bristol's Strategy 2030. Through consultancy projects, placements, and industry collaborations, the programme supports the Community and Business Engagement strategy, preparing graduates to contribute directly to regional and global digital economies. Issues of ethics and sustainability are addressed through critical reflection on professional practice. The programme embeds Equality, Diversity, and Inclusivity by fostering accessible, inclusive teaching and recognising the diverse needs of learners. Student wellbeing is prioritised in line with the Health and Wellbeing strategy, with strong academic and pastoral support integrated into delivery. Finally, the programme benefits from the People strategy and Campus Environments workstream which ensures that staff expertise and digital learning environments provide the best foundation for student success.

The Software Engineering Body of Knowledge (SWEBOK) is an international

standard (ISO/IEC 19759:2015) maintained by the IEEE Computer Society that defines the generally accepted knowledge areas in software engineering. This directly informs the set of programme outcomes developed for the Software Engineering programme.

Part E: Regulations

Approved to University Regulations and Procedures.