

Course Title	BSc (Hons) Digital & Technology Solutions (Software Engineering) [Degree Apprenticeship]
Awarding Body	University of Suffolk
Level of Award ¹	FHEQ Level 6
Professional, Statutory and Regulatory Bodies Recognition	Tech Skills
Credit Structure ²	360 Credits Level 4: 120 Credits Level 5: 120 Credits Level 6: 120 Credits
Mode of Attendance	Full-time
Standard Length of Course ³	3 Years and 6 Months
Intended Award	BSc (Hons) Digital & Technology Solutions (Software Engineering)
Named Exit Awards	CertHE Digital & Technology Solutions (Software Engineering) DipHE Digital & Technology Solutions (Software Engineering)
Entry Requirements ⁴	Typical offer: Applicants should normally have BBC at A-level or DMM at BTEC (112 UCAS tariff points). All applicants must have Level 2 English and Maths at GCSE grade C or above (or equivalent). All applicants must additionally be on the appropriate apprenticeship scheme with an employer
Delivering Institution(s)	University of Suffolk
UCAS Code	N/A

¹ For an explanation of the levels of higher education study, see the [QAA Frameworks for Higher Education Qualifications of UK Degree Awarding Bodies \(2024\)](#)

² All academic credit awarded as a result of study at the University adheres to the [Higher education credit framework for England](#).

³ Where the course is delivered both full-time and part-time, the standard length of course is provided for the full-time mode of attendance only. The length of the part-time course is variable and dependent upon the intensity of study. Further information about mode of study and maximum registration periods can be found in the [Framework and Regulations for Undergraduate Awards](#).

⁴ Details of standard entry requirements can be found in the [Admissions Policy](#) and further details about Disclosure and Barring Checks (DBS) can be found on the [University's DBS webpage](#).

This definitive record sets out the essential features and characteristics of the BSc (Hons) Digital & Technology Solutions (Software Engineering) [Degree Apprenticeship] course. The information provided is accurate for learners entering level 4 in the 2027-28 academic year⁵.

Course Summary

The BSc (Hons) Digital & Technology Solutions (Software Engineering) [Degree Apprenticeship] programme at the University of Suffolk is fully accredited as meeting the standard of the Digital & Solutions Technology Professionals degree apprenticeship. It equips graduates with the knowledge and hands on skills required by employers in the IT and telecommunications sectors. They are designed to give learners opportunities to acquire the specialist academic knowledge, practical skills and industrial certification that will help secure employment in this competitive economy. Graduates will have achieved core competencies in network engineering, software engineering, data analysis, cyber security, business analysis and project management. In addition, graduates will have achieved the specialist competency of Software Developer on the Digital & Technology Solutions framework, and additionally covered the knowledge and skills expected of Data Engineers and DevOps Engineers.

Course Aims

1. Provide learners with a sound knowledge and understanding of software engineering, web development and information engineering.
2. Enable learners to be proficient in the specification, design, creation, testing and roll-out of software products.
3. Enable learners to be proficient in the specification, design, creation, manipulation and usage of database and information engineering solutions
4. Provide learners with sound knowledge, understanding and practical skills in advanced software topics.
5. Provide learners with comprehensive knowledge and understanding of cyber security for networks, software and systems.
6. Enable students to be proficient in the design and implementation of cyber security elements of networks, software and systems.
7. Enable all learners on the Software Pathway to achieve the specialist competencies of Software Developer on the Digital & Technology Solutions framework
8. Enable all learners on the Software Engineering Pathway to successfully achieve their end-point competency as Software Engineers
9. Help learners develop competencies in effective interpersonal and business communication, presentation skills, business and project management.
10. Help learners develop the personal qualities and professional attributes required by employers (these include reliability, integrity, ethical approach, dependability, teamwork and reflection)
11. Encourage learners to understand their own technological responsibilities in the context of the client organisation and its commercial and business operation.
12. Develop learners' ability to take responsibility for their own learning and professional development.

Course Learning Outcomes

The following statements define what learners graduating from the BSc (Hons) Digital & Technology Solutions (Software Engineering) course will have been judged to have demonstrated to achieve the award. These statements, known as learning outcomes, have

⁵ The University reserves the right to make changes to course content, structure, teaching and assessment as outlined in the [Admissions Policy](#).

been formally approved as aligned with the generic qualification descriptor for level 6 awards as set out by the UK Quality Assurance Agency (QAA)⁶.

1. Express and employ detailed knowledge and systematic understanding of essential facts, concepts, principles and theories, both established and emergent, relating to software engineering for web, software, networks, and systems.
2. Express and employ detailed knowledge and systematic understanding of essential facts, concepts, principles and theories, both established and emergent, relating to advanced topics in information and software engineering.
3. Apply software engineering principles, practices, and tools to design, implement, and evaluate secure software systems. Utilise established and emerging techniques to identify vulnerabilities, conduct ethical and systematic testing, and engineer robust defence-in-depth mechanisms that protect software throughout its development and deployment lifecycles.
4. Utilise knowledge and skills relating to advanced topics in information and software engineering to analyse, specify, develop and deploy technical solutions to appropriate problems, using both established and bleeding-edge techniques as appropriate.
5. Understand, describe, and comment upon the literature and cutting-edge research in software engineering, and appreciate the associated uncertainties, ambiguities, and limits to knowledge at the forefront of the discipline.
6. Apply methods and techniques learned in software engineering and advanced topics in information and software engineering to consolidate, extend, and apply knowledge and understanding to extended realistic and real-world projects.
7. Apply detailed knowledge, systematic understanding, and mastered techniques to initiate and execute their endpoint project in software engineering and multiple minor projects in different topic areas.
8. Critically evaluate arguments, concepts, requirements, constraints and data to make rational judgements on appropriate algorithms, designs, methods, and configurations leading to the necessary analysis, design, implementation, and/or testing of a solution or identification of a class of solutions to significant problems.
9. Present ideas, information, analyses, designs, implementations, tests and results relating to cyber security, or software engineering, critically, comprehensibly and succinctly to both specialist and non-specialist audiences.

⁶ As set out in the [QAA Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies \(2024\)](#)

10. Deploy appropriate established and/or cutting-edge theory, practices and tools for the successful attack and defence of software, networks and systems.
11. Systematically Recognise the legal, ethical and professional issues in all aspects of their practice, and be able to exercise initiative and personal responsibility in software engineering.
12. Research, design, implement, test, utilise and document software solutions to address specific problems, using their knowledge, understanding and technical skills in software engineering.
13. Develop an understanding of a specialist subject or problem area in software to a level where they can effectively evaluate it, analyse possible solutions, design an appropriate solution and bring that solution to a successful conclusion in a defined time-frame, showing by doing so their capabilities and readiness for lifelong learning and professional training.
14. Evidence the qualities and transferable skills necessary for graduate-level employment requiring the exercising of initiative, personal responsibility, and decision making, through working individually and in groups on mini-projects, extended case studies and scenarios, and their major project in software engineering.

Course Design

The design of this course has been guided by the following QAA Benchmarks and Apprenticeship Standards:

- QAA Subject Benchmark in Computing (2022)⁷
- Digital & Technology Solutions Professional apprenticeship standard (2023)

Course Structure

The BSc (Hons) Digital & Technology Solutions (Software Engineering) comprises modules at levels 4, 5 and 6.

Module Specifications for each of these modules are included within the course handbook, available to learners on-line at the beginning of each academic year.

	Module	Credits	Module Type ⁸
Level 4			
	Introduction to Programming	30	R
	Computing Fundamentals & Operating Systems	30	R

⁷ See also [Subject Benchmark Statement - Computing \(including Master's\)](#)

⁸ Modules are designated as either mandatory (M), requisite (R) or optional (O). For definitions, see the [Framework and Regulations for Undergraduate Awards](#)

	Foundations of Cyber Security & Networking	30	R
	Project Management & Professional Development	30	R
Level 5			
	Adv Programming Concepts & Data Structures	30	R
	Databases	30	R
	Software Engineering & Web Applications	30	R
	DevOps: Secure Development and Testing	30	R
Level 6			
	Innovation, Research & Future Technologies	30	R
	Cyber Defence and Ethical Hacking	30	R
	Distributed Intelligence and Cloud Engineering	30	R
	Synoptic Project (Software Engineering)	30	M

Awards

On successful completion of the course, learners will be awarded a BSc (Hons) Digital & Technology Solutions (Software Engineering). Learners who leave the course early may be eligible for a DipHE Digital & Technology Solutions (Software Engineering) on successful completion of 240 credits including the mandatory module at level 5, or a CertHE Digital & Technology Solutions (Software Engineering) on successful completion of 120 credits.

Course Delivery

The course is delivered at Ipswich. Learners studying full-time on BSc (Hons) Digital & Technology Solutions (Software Engineering) are likely to have approximately 240 contact hours for level 4, 240 contact hours for level 5 and 190 contact hours for level 6. The contact hours will be a mix of lectures, practicals, seminars and workshops according to the nature of the module. As learners will be apprentices, they will also be in full-time work-based employment and training with their employer when not at university. Learners will normally be expected to undertake at least 6 hours per module of independent study in an average week, but should be prepared for this to vary based on assignment deadlines and class exercises.

Course Assessment

A variety of assessments will be used on the course to enable learners to experience and adapt to different assessment styles. The assessment methods used will be appropriate to assess each module's intended learning outcomes. Assessment on the course overall will be coursework (including assignments, dissertations, essays, reports, portfolios, presentations, group work, reflective learning journals and research projects), as well as examinations, practical time-constrained assessments and in-class tests.

Apprenticeship Assessment

All learners on the course undertake an Apprenticeship Assessment (AA) to complete their Digital & Technology Solutions Professional apprenticeship learners will be expected to undertake the AA as part of their degree. The AA will be delivered by the University. The AA

will be 100% coursework (including project, dissertation and presentation). Following successful completion of the AA learners will achieve their Digital & Technology Solutions Professional (Software Developer) apprenticeship and BSc (Hons) Digital & Technology Solutions (Software Engineering) degree.

Special Features

The BSc (Hons) Digital Technology Solutions (Software Engineering) [degree apprenticeship] course meets the requirements of the Digital Technology Solutions Professional (integrated degree) apprenticeship standard and is accredited as Tech Industry Gold by Tech Partnership Degrees, the digital sector's industry accreditation body.

Course Team

The academic staff delivering this course are drawn from a team that includes teaching specialists, active researchers and current practitioners. All staff are qualified in their subjects with their own specialist knowledge to contribute.

Course Costs

learners undertaking BSc (Hons) Digital & Technology Solutions (Software Engineering) [Degree Apprenticeship] will not be charged tuition fees directly. Tuition fees will be agreed between the University and a learner's employer. Learners will be required to sign a commitment statement before starting their apprenticeship which will detail the learner's, employer's and University's expectations under the apprenticeship agreement.

Learners may choose to enrol onto certification exams relevant to their specialisation – details of the costs of these will be advised when available. Taking certification exams is not a mandatory part of the degree.

Academic Framework and Regulations

This course is delivered according to the Framework and Regulations for Undergraduate Awards and other academic policies and procedures of the University and published on the [website](#)⁹.

⁹ See <https://www.uos.ac.uk/about/our-university/our-policies-and-procedures/>