Programme Specification

Computer Science [Frenchay]

Version: 2024-25, v2.0, 25 Jun 2024

Contents

Section 1: Key Programme Details

Part A: Programme Information

Programme title: Computer Science [Frenchay]

Highest award: BSc (Hons) Computer Science

Interim award: BSc Computer Science

Interim award: DipHE Computer Science

Interim award: CertHE Computer Science

Awarding institution: UWE

Teaching institutions: UWE

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:

British Computer Society (BCS)

Modes of delivery: Full-time, Sandwich

Entry requirements:

For implementation from: 01 September 2020

Programme code: I10J00

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: This programme provides a flexible, employer-facing education in Computer Science.
Through modern teaching methods the programme supports students to use complex algorithms, implement software on state of the art platforms and explore big data. Suitably designed and selected modules offer students the opportunity to specialise their knowledge.

All our graduates will leave with familiarity of the basic tools and concepts of modern AI. Some of our graduates will have taken the opportunity to leave with advanced skills in AI and Data Analytics ready to meet the worldwide skills shortage in this area, while others might explore the evolving world of Smart Devices; making this programme valuable for the home and the overseas educational market.

Features of the programme:

Educational Aims: This programme aims to:

Develop able and enabled graduates who contribute to their profession and society.

Develop competent software developers who can explore and make use of new technologies as they emerge.

Develop graduates who have the skills and habits of thinking that allow for life-long learning.

Develop graduates who are equipped to make a contribution to the discipline either through research or practice.

Develop graduates who recognise their ethical and professional responsibilities.

Programme Learning Outcomes:

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

Programme Learning Outcomes

PO1. Apply Artificial Intelligence concepts and techniques to offer innovative solutions to problems or to enhance the efficiency and effectiveness of existing systems.

PO2. Be able to use their technical knowledge and skills to contribute to and deliver innovation through independent, self-driven evidence-based enquiry.

PO3. Be able to recognise security threats and their implications, plan actions and design systems to manage them

PO4. Be competent software developers, with excellent problem solving skills and the ability to adapt to different development environments

PO5. Be able to make a significant contribution as a member of a team in the development of computer based systems, offering solutions in a range of application areas.

PO6. Respond to and act upon the ethical, legal and professional implications which they may encounter during their professional lives.

PO7. Be equipped to understand and respond to the changing needs of industry and society

Assessment strategy: This programme uses a range of assessment methods, designed to speak to different leaning styles and to assess not only knowledge and skills but also to develop essential professional attributes such as the ability to work in a group and synthesise work and present it to an audience . While all forms of assessment will be utilised across the full length of studies, the aim is to have students exposed to the full range of assessments and output formats before they reach level 6 of studies, to ensure their performance will not be affected by lack of experience with a new type of assessment.

The assessment regime is designed to scaffold the students' confidence in their abilities and in the assessment process. For example, at level 4 students will experience in-class tests and on-line tests moving on to formal exams as the

programme progresses.

Coursework assignments will be in a mixture of individual and group work and will be assessed by a range of outcomes: written essays providing reflective evaluation of individual or group effort; demonstrations of working systems; High level poster presentations; presentations using digital media capabilities will be utilised to demonstrate student achievement. Technical Reports will also be employed to allow students to present the capabilities of a system that have implemented and critically analyse its potential.

Peer assessment will be employed where group work is assessed. This will allow students to develop more balanced evaluation skills, appreciate the needs of project requirements and dynamics and the limitations of collaborative work. It will also support the building of their professional maturity and appreciation of team and work ethics.

Irrespective of the route chosen, throughout the programme there are opportunities for formative feedback as summative assessment is developed, Formative feedback is designed not only to help the students with their learning but also to build their sense of connection and community with their peers and with the academics

Student support: As part of Faculty policy and a strong departmental tradition, students on this programme benefit from the opportunity to participate in field trips. These address the objective of widening horizons for the students by experiencing places or events of interest in the UK and overseas and help to build a sense of community.

Typical examples are visits to Bletchley Park, CERN in Geneva, attending scientific international conferences in the UK and overseas and visiting partner institutions overseas (Taylor's University in Malaysia). Costs for these are heavily subsidised by the department or the faculty and therefore allow students on low incomes to engage.
The expectation is that students will be inspired by the scientific experiences

(research and industry talks at places of visit), the history of a venue or the different way different countries and cultures interact with computing systems. We expect that such experiences will inform and inspire pathway by helping students focus on their interests.

As part of community building, students are also invited to join the CSCT Open Forum. This is a student-led, academic-supported forum in which topics of interest to Computer Scientists can be discussed. Previous forum discussions have included "Is technology is the greatest threat to democracy?", "Ethics of AI", "Chess- the perfect game for Computer Scientists". The forums are normally held in the afternoon and preceded or followed by refreshments financed by the department.

Also in the spirit of community building, all Computer Science have a "community hour" scheduled on their timetables. This is a time when students at all levels on the programme can get together for employer talks, preparation for competitions and general discussions about the programme and is an opportunity for peer support and bonding.

All students also benefit from a number of modules that offer input from invited speakers from industry and research. These in turn can help stimulate students' interest in particular areas of computer science and support their pathway choices.

In addition to timetabled sessions, students of this programme will be also be supported by:

EspressoProgramming, a drop-in programming support session, staffed by academics and running weekdays during term-time from 12-2.00pm.

At level 4, timetabled Peer Assisted Learning (PAL) sessions in which level 5 students will offer advice and guidance about study issues.

The provision of large Open Access spaces which are well-used by their peers and open 24/7. The Open Access Spaces contain machines that provide students with access to the software they need for their studies and more besides.

Published office hours for support outside of scheduled classes.

A library that is well-stocked with reference texts, powerful computers and extensive on-line resources.

The opportunity to engage with real projects through the Foundry, a innovative work-space in which students work on small client projects.

The provision of other, frequently available, computer laboratories that provide similar access. These labs are also open 24/7 though they are timetabled during core teaching hours.

The provision of a faculty-based System Support Helpdesk that provides a range of support for learning to students including: support for a wide range of applications used by the students; help in the form of assistants who are trained to resolve many common student problems; and help in the form of a large set of “Helpsheet Documents”, developed over a number of years, that cover a variety of common student requests for information.

In level-6 modules, especially in the final year project, there is scope for engagement with current leading-edge research undertaken by researchers within the University.

Part B: Programme Structure

Artificial Intelligence

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

Year 1 Compulsory Modules
Full time and sandwich students must take 120 credits from the modules in Compulsory Modules (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCFGS-15-1	Artificial Intelligence I 2024-25	15
UFCFDS-15-1	Computer Systems Architecture 2024-25	15
UFCFFS-30-1	Foundations of Computing 2024-25	30
UFCFHS-30-1	Principles of Programming 2024-25	30
UFCFES-30-1	Web Development and Databases 2024-25	30

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

Year 2 Compulsory Modules Group 1 - All Pathways (Full Time and Sandwich)
Full time and sandwich students must take 60 credits from the modules in Compulsory Modules Group 1 - All Pathways (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCFYR-15-2	Advanced Algorithms 2025-26	15
UFCFWK-15-2	Operating Systems 2025-26	15
UFCF7S-30-2	Systems Development Group Project 2025-26	30

Year 2 Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time and Sandwich)
Full time and sandwich students must take 60 credits from the modules in Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCF8S-30-2	Advanced Software Development 2025-26	30
UFCF9S-15-2	Artificial Intelligence II 2025-26	15
UFCFAS-15-2	Machine Learning 2025-26	15

Year 3
Full time students must take 120 credits from the modules in Year 3.
Sandwich students must take 15 credits from the modules in Year 3.

Year 3 Compulsory Modules Group 1 - All Pathways (Full Time)
Full time students must take 60 credits from the modules in Compulsory Modules Group 1 - All Routes (Full Time).

Module Code	Module Title	Credit
UFCFXK-30-3	Digital Systems Project 2026-27	30
UFCFTR-30-3	Distributed and Enterprise Software Development 2026-27	30

Year 3 Compulsory Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Compulsory Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFE6-15-3	Professional Experience 2026-27	15

Year 3 Compulsory Modules Group 2 - General Route (Full Time)
Full time students must take 15 credits from the modules in Compulsory Modules Group 2 - General Route (Full Time).

Module Code	Module Title	Credit
UFCFU3-15-3	Advanced Databases 2026-27	15

Year 3 Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time)
Full time students must take 15 credits from the modules in Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time).

Module Code	Module Title	Credit
UFCFUR-15-3	Advanced Artificial Intelligence 2026-27	15

Year 3 Compulsory Modules Group 4 - Smart Devices Route (Full Time)
Full time students must take 60 credits from the modules in Compulsory Modules Group 4 - Smart Devices Route (Full Time).

Module Code	Module Title	Credit
UFCFVR-15-3	Communications and Protocols 2026-27	15

Year 3 Optional Modules Group 1 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 1 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFVJ-15-3	Professional Development 2026-27	15
UFCFJS-15-3	Professional Studies in Computing 2026-27	15

Year 3 Optional Modules Group 2 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 2 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFWR-15-3	Advanced Systems Programming 2026-27	15
UFCFEL-15-3	Security Data Analytics and Visualisation 2026-27	15

Year 3 Optional Modules Group 3 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 3 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFXR-15-3	Autonomous Agents and Multi-Agent Systems 2026-27	15
UFCF7H-15-3	Mobile Applications 2026-27	15

Year 4
Sandwich students must take 105 credits from the modules in Year 4.

Year 4 Compulsory Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 60 credits from the modules in Compulsory Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFXK-30-3	Digital Systems Project 2027-28	30
UFCFTR-30-3	Distributed and Enterprise Software Development 2027-28	30

Year 4 Compulsory Modules Group 3 - Artificial Intelligence Route (Sandwich)
Sandwich students must take 15 credits from the modules in Compulsory Modules Group 3 - Artificial Intelligence Route (Sandwich).

Module Code	Module Title	Credit
UFCFUR-15-3	Advanced Artificial Intelligence 2027-28	15

Year 4 Optional Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Optional Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCF7H-15-3	Mobile Applications 2027-28	15
UFCFXR-15-3	Autonomous Agents and Multi-Agent Systems 2027-28	15

Year 4 Optional Modules Group 2 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Optional Modules Group 2 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFWR-15-3	Advanced Systems Programming 2027-28	15
UFCFEL-15-3	Security Data Analytics and Visualisation 2027-28	15

General Route

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

Year 1 Compulsory Modules
Full time and sandwich students must take 120 credits from the modules in Compulsory Modules (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCFGS-15-1	Artificial Intelligence I 2024-25	15
UFCFDS-15-1	Computer Systems Architecture 2024-25	15
UFCFFS-30-1	Foundations of Computing 2024-25	30
UFCFHS-30-1	Principles of Programming 2024-25	30
UFCFES-30-1	Web Development and Databases 2024-25	30

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

Year 2 Compulsory Modules Group 1 - All Pathways (Full Time and Sandwich)
Full time and sandwich students must take 60 credits from the modules in Compulsory Modules Group 1 - All Pathways (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCFYR-15-2	Advanced Algorithms 2025-26	15
UFCFWK-15-2	Operating Systems 2025-26	15
UFCF7S-30-2	Systems Development Group Project 2025-26	30

Year 2 Compulsory Modules Group 2 - General Route (Full Time and Sandwich)
Full time and sandwich students must take 60 credits from the modules in Compulsory Modules Group 2 - General Route (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCF8S-30-2	Advanced Software Development 2025-26	30
UFCF9S-15-2	Artificial Intelligence II 2025-26	15

UFCFVK-15-2	Internet of Things 2025-26	15

Year 3
Full time students must take 120 credits from the modules in Year 3.
Sandwich students must take 15 credits from the modules in Year 3.

Year 3 Compulsory Modules Group 1 - All Pathways (Full Time)
Full time students must take 60 credits from the modules in Compulsory Modules Group 1 - All Routes (Full Time).

Module Code	Module Title	Credit
UFCFXK-30-3	Digital Systems Project 2026-27	30
UFCFTR-30-3	Distributed and Enterprise Software Development 2026-27	30

Year 3 Compulsory Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Compulsory Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFE6-15-3	Professional Experience 2026-27	15

Year 3 Compulsory Modules Group 2 - General Route (Full Time)
Full time students must take 15 credits from the modules in Compulsory Modules Group 2 - General Route (Full Time).

Module Code	Module Title	Credit
UFCFU3-15-3	Advanced Databases 2026-27	15

Year 3 Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time)
Full time students must take 15 credits from the modules in Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time).

Module Code	Module Title	Credit
UFCFUR-15-3	Advanced Artificial Intelligence 2026-27	15

Year 3 Compulsory Modules Group 4 - Smart Devices Route (Full Time)
Full time students must take 60 credits from the modules in Compulsory Modules Group 4 - Smart Devices Route (Full Time).

Module Code	Module Title	Credit
UFCFVR-15-3	Communications and Protocols 2026-27	15

Year 3 Optional Modules Group 1 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 1 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFVJ-15-3	Professional Development 2026-27	15
UFCFJS-15-3	Professional Studies in Computing 2026-27	15

Year 3 Optional Modules Group 2 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 2 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFWR-15-3	Advanced Systems Programming 2026-27	15
UFCFEL-15-3	Security Data Analytics and Visualisation 2026-27	15

Year 3 Optional Modules Group 3 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 3 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFXR-15-3	Autonomous Agents and Multi-Agent Systems 2026-27	15
UFCF7H-15-3	Mobile Applications 2026-27	15

Year 4
Sandwich students must take 105 credits from the modules in Year 4.

Year 4 Compulsory Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 60 credits from the modules in Compulsory Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFXK-30-3	Digital Systems Project 2027-28	30
UFCFTR-30-3	Distributed and Enterprise Software Development 2027-28	30

Year 4 Compulsory Modules Group 2 - General Route (Sandwich)
Sandwich students must take 15 credits from the modules in Compulsory Modules Group 2 - General Route (Sandwich).

Module Code	Module Title	Credit
UFCFU3-15-3	Advanced Databases 2027-28	15

Year 4 Optional Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Optional Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCF7H-15-3	Mobile Applications 2027-28	15
UFCFXR-15-3	Autonomous Agents and Multi-Agent Systems 2027-28	15

Year 4 Optional Modules Group 2 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Optional Modules Group 2 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFWR-15-3	Advanced Systems Programming 2027-28	15
UFCFEL-15-3	Security Data Analytics and Visualisation 2027-28	15

Smart Devices

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

Year 1 Compulsory Modules
Full time and sandwich students must take 120 credits from the modules in Compulsory Modules (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCFGS-15-1	Artificial Intelligence I 2024-25	15
UFCFDS-15-1	Computer Systems Architecture 2024-25	15
UFCFFS-30-1	Foundations of Computing 2024-25	30
UFCFHS-30-1	Principles of Programming 2024-25	30
UFCFES-30-1	Web Development and Databases 2024-25	30

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

Year 2 Compulsory Modules Group 1 - All Pathways (Full Time and Sandwich)
Full time and sandwich students must take 60 credits from the modules in Compulsory Modules Group 1 - All Pathways (Full Time and Sandwich).

Module Code	Module Title	Credit
UFCFYR-15-2	Advanced Algorithms 2025-26	15
UFCFWK-15-2	Operating Systems 2025-26	15
UFCF7S-30-2	Systems Development Group Project 2025-26	30

Year 2 Compulsory Modules Group 4 - Smart Devices Route (Full Time and Sandwich)
Full time and sandwich students must take 60 credits from the modules in Compulsory Modules Group 4 - Smart Devices Route (Full Time and Sandwich).

Module Code	Module Title	Credit

UFCFCS-30-2	Digital Design 2025-26	30
UFCFBS-15-2	Embedded Systems Programming 2025-26	15
UFCFVK-15-2	Internet of Things 2025-26	15

Year 3
Full time students must take 120 credits from the modules in Year 3.
Sandwich students must take 15 credits from the modules in Year 3.

Year 3 Compulsory Modules Group 1 - All Pathways (Full Time)
Full time students must take 60 credits from the modules in Compulsory Modules Group 1 - All Routes (Full Time).

Module Code	Module Title	Credit
UFCFXK-30-3	Digital Systems Project 2026-27	30
UFCFTR-30-3	Distributed and Enterprise Software Development 2026-27	30

Year 3 Compulsory Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Compulsory Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFE6-15-3	Professional Experience 2026-27	15

Year 3 Compulsory Modules Group 2 - General Route (Full Time)
Full time students must take 15 credits from the modules in Compulsory Modules Group 2 - General Route (Full Time).

Module Code	Module Title	Credit
UFCFU3-15-3	Advanced Databases 2026-27	15

Year 3 Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time)
Full time students must take 15 credits from the modules in Compulsory Modules Group 3 - Artificial Intelligence Route (Full Time).

Module Code	Module Title	Credit

UFCFUR-15-3	Advanced Artificial Intelligence 2026-27	15

Year 3 Compulsory Modules Group 4 - Smart Devices Route (Full Time)
Full time students must take 60 credits from the modules in Compulsory Modules Group 4 - Smart Devices Route (Full Time).

Module Code	Module Title	Credit
UFCFVR-15-3	Communications and Protocols 2026-27	15

Year 3 Optional Modules Group 1 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 1 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFVJ-15-3	Professional Development 2026-27	15
UFCFJS-15-3	Professional Studies in Computing 2026-27	15

Year 3 Optional Modules Group 2 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 2 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFWR-15-3	Advanced Systems Programming 2026-27	15
UFCFEL-15-3	Security Data Analytics and Visualisation 2026-27	15

Year 3 Optional Modules Group 3 - All Pathways (Full Time)
Full time students must take 15 credits from the modules in Optional Modules Group 3 - All Pathways (Full Time).

Module Code	Module Title	Credit
UFCFXR-15-3	Autonomous Agents and Multi-Agent Systems 2026-27	15
UFCF7H-15-3	Mobile Applications 2026-27	15

Year 4
Sandwich students must take 105 credits from the modules in Year 4.

Year 4 Compulsory Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 60 credits from the modules in Compulsory Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFXK-30-3	Digital Systems Project 2027-28	30
UFCFTR-30-3	Distributed and Enterprise Software Development 2027-28	30

Year 4 Compulsory Modules Group 4 - Smart Devices Route (Sandwich)
Sandwich students must take 60 credits from the modules in Compulsory Modules Group 4 - Smart Devices Route (Sandwich).

Module Code	Module Title	Credit
UFCFVR-15-3	Communications and Protocols 2027-28	15

Year 4 Optional Modules Group 1 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Optional Modules Group 1 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCF7H-15-3	Mobile Applications 2027-28	15
UFCFXR-15-3	Autonomous Agents and Multi-Agent Systems 2027-28	15

Year 4 Optional Modules Group 2 - All Pathways (Sandwich)
Sandwich students must take 15 credits from the modules in Optional Modules Group 2 - All Pathways (Sandwich).

Module Code	Module Title	Credit
UFCFWR-15-3	Advanced Systems Programming 2027-28	15

Part C: Higher Education Achievement Record (HEAR) Synopsis

A graduates of this programme will be equipped with excellent technical and thinking skills thus enabling them to be an innovative problem solver. They will be familiar with a and practised in a range of programming languages and deployment environments. They will be familiar with tools, techniques and methods in Artificial Intelligence. They will have experienced a rich teaching environment and will be practised in professional skills. They will have connected with industry and will be equipped to respond to the future. They will understand their ethical, legal and professional responsibilities as practising technologists.

Part D: External Reference Points and Benchmarks

The QAA Computing Benchmark Statement

The latest QAA Subject Benchmark Statement for Computing was published in October 2019, and is applicable to this proposal. The design team has considered it in drawing up the structure of the programme, and is of the view that the proposal falls clearly within the scope of the benchmarks, as regards curriculum, teaching and learning, and the benchmarking standards themselves.

The benchmark describes the discipline of Computer Science in some detail and this programme falls squarely within the expressed characteristics. For example, the statement (p 5.) states that,

“Computer science provides the necessary knowledge to understand and build computational systems“

and states that its main characteristics include,

“fundamental computational concepts and algorithmic thinking, including recursive, distributed and parallel possibilities and attention to the benefits and the limitations of these; the role of these in devising approaches to areas of system design, problem solving, artificial intelligence, simulation and computational modelling

recognition of the relationships between the concepts of requirements, specification, design, programme and data (in all its forms) validation and maintenance, as well as the power of transformation and proof, and the place of these in computing

understanding the power behind abstraction, the potential of multiple levels of abstraction and the role this plays in computing

understanding the opportunities for and the potential of automation, but also the proper balance between automation and how humans effectively interact with computers, recognising the role of redundancy, diversity and separation of concerns in achieving reliable, usable and secure systems, often in the presence of uncertainty

recognising simplicity and elegance as useful concepts and principles”

All of the above is covered by this programme. The benchmark also addresses subject-specific skills and teaching, learning and assessment. The principles embodied with these section sof the benchmark statement have been incorporated into the design of this programme
The benchmarks also contain (section 6) statements of the standards expected of graduates at threshold, typical and excellent levels. The team is of the view that the programme is structured in such a way that graduates will meet the required standards.

In designing this programme we have made reference to the SEEC credit level descriptors for HE, 2016
http://www.seec.org.uk/wp-content/uploads/2016/07/SEEC-descriptors-2016.pdf

and the QAA FHEQ descriptors to ensure that module and programme learning outcomes are expressed in a way that is appropriate to their level.

The UWE Enhancement Framework has helped to frame our thinking in terms of the context in which the students will learn, as has UWE 2030 strategy document.

Finally, we have been informed by our professional body, the British Computer Society whichrequires that ethical, professional and information security issues are surfaced in the programme.

Part E: Regulations

Approved to variant University 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 applies from 2024-25 Award Boards 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% for Levels 4-6 and 40%-49% for Level 7.

No excused credit.