Programme Specification

Applied Computing [UCW]

Version: 2022-23, v1.0, 31 Jan 2024

Contents

Section 1: Key Programme Details

Part A: Programme Information

Programme title: Applied Computing [UCW]

Highest award: BSc (Hons) Applied Computing

Interim award: BSc Applied Computing

Interim award: DipHE Applied Computing

Interim award: CertHE Applied Computing

Awarding institution: UWE Bristol

Teaching institutions: University Centre Weston

Study abroad: Yes

Year abroad: No

Sandwich year: No

Credit recognition: No

School responsible for the programme: FET Dept of Computer Sci & Creative Tech, Faculty of Environment & Technology

Professional, statutory or regulatory bodies: Not applicable

Modes of delivery: Full-time

Entry requirements: The University's standard entry requirements apply with the following additions/exceptions:

University Centre Weston will make judgements based upon the context of each individual student and seek evidence which demonstrates that they can benefit from study on this programme and are likely to achieve the required standard.

Applicants will in most cases have achieved five subjects at GCSE level, grade 4-9/A-C, ideally to include English Language and Mathematics or accepted equivalents (Functional Skills Level 2 is considered equivalent for this programme). Strong

candidates who do not possess equivalent qualifications may however be admitted and study GCSEs/Functional Skills alongside their programme.

Applicants will have achieved UCAS tariff points as appropriate for the year of entry, which for the academic year 2019/20 is 80 points. Up to date requirements are available through the UWE courses database or UCW website.

Applications are also welcomed from a diverse range of backgrounds from those who do not meet the entry requirements outlined above. Applicants will be considered on an individual basis where there is evidence of significant personal, professional and educational experience which indicates ability to meet the demands of an undergraduate degree programme. Consideration of applicants in this way will typically include an interview with members of the programme team and the completion of a set task such as a written assignment.

Where appropriate experience or learning has been gained prior to enrolment on the programme, UCW will consider applications for advanced entry, e.g. into year two.

Applicants whose first language is not English must also gain a minimum IELTS score of 6.0 prior to entry onto the programme.

For implementation from: 07 September 2020

Programme code: I10G00

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: This programme has been designed to develop your ability to recognise and respond to the ever-changing environment and challenges faced in the computing industries. You will develop both the specialist skills needed to succeed within the industries, as well as effective communication skills.

The programme places a strong emphasis on personal, professional and vocational aspirations. As a result you will emerge with a comprehensive set of practical and theoretical skills. The programme will develop your personal and technical skills and competencies that are vital for employment within the computing industries.

The programme aims to prepare you for a career in the computing and information technology industries; to provide you with an awareness of professional standards of conduct and practice; and to provide you with the ability to apply your skills, knowledge and understanding to a variety of computing problems and contexts and to develop computer applications.

Features of the programme:

Educational Aims: This programme will:

Foster in you innovation, enterprise and enthusiasm for excellence in computing.

Develop your technical skills so you can make an effective and professional contribution to the work of interdisciplinary groups engaged in computing projects.

Develop your personal study, communication, presentation and interpersonal skills required for both independent, autonomous practice and teamworking.

Develop critical, analytical problem-based learning skills and the transferable skills to prepare you for employment and continuing professional development leading to a lifelong learning approach.

Enable you to demonstrate sound knowledge of the concepts, principles and practice from a range of discipline areas within the computing field.

Develop your creative abilities through practice and evaluation of that practice, while also developing your critical understanding of new subject areas.

Programme Learning Outcomes:

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

Programme Learning Outcomes

PO1. Specify, design and construct reliable, secure and usable computer based systems.

PO2. Plan, risk assess, manage and test system developments/projects to deliver within constraints of requirements, timescale and budget.

PO3. Critically evaluate and analyse criteria, specifications, and complex problems, and plan strategies to devise appropriate solutions.

PO4. Analyse the extent to which a computer-based system meets the criteria defined for its current use and future development.

PO5. Effectively deploy the tools used for the construction and documentation of computer applications, with particular emphasis on understanding the whole process involved in the effective deployment of computers to solve practical problems.

PO6. Explain essential facts, concepts, principles and theories relating to computing and computer applications.

PO7. Apply appropriate practices within a professional, legal and ethical framework and identify mechanisms for continuing professional development and lifelong learning

PO8. Demonstrate and apply effective workplace skills such as: innovation and creativity; self-management; self-awareness and reflection; goal setting and action planning; independence and adaptability; communication skills; acting on initiative; innovation and creativity, for the benefit of both personal and organisational development.

Assessment strategy: Throughout the programme, opportunities for formative assessment will support summative assessment. A variety of assessment methods will be used including: presentations; reports; coursework, professional briefs and projects. You will be assessed on scenarios that require problem solving, working both individually and as part of a team.

Assessment will develop from module activity, including formative assessment, to

ensure that you are fully supported. The assessments provide appropriate challenges to engage you with academic, research, work-based opportunities to support your developing professionalism.

Assessments are both formative and summative and may include:

Evidence-researched discussions

Projects and practical portfolios

Simulated placements

Industry placements

Essays & reports

Presentations

Professional critique sessions and discussions

Critical evaluations

Reflective commentaries

Personal development plans

Peer reviews

Exams

The assessment of practical system developments and programming skills is embedded throughout the programme. As students progress through the programme, project management, development and collaboration become a key theme, and is seen as core activity within the computing industries.

Presentations will be used to offer students the opportunity to develop and refine competence and confidence in public speaking; an essential skill for a student's chosen profession and also a highly valuable transferable skill.

Reports and essays are used to assess students written abilities, and to allow for critical reflection and research skills to be developed and assessed.

Portfolio and practical requirements will be explained within the modules handbooks and enable the range of assessment types to be widened. This represents a creative, flexible, student-centred approach to assessment.

To maintain the core values of "Applied" Computing, assessment percentage distribution ensures that practical assessments have a larger weighting for all module assessments. In parallel to this, a minimum of 25% weighting can be given to an assessment, ensuring all assessments have a strong weighting and overall impact on final module grading. Key weightings are outlined below:

Practical Portfolio - minimum of 60%

Time Constrained Assessment (2 hours) - fixed at 40%

Presentation (30 minutes) - fixed at 30%

Exam (2 Hour) - fixed at 30%

Presentation (15 minutes) - fixed at 25%

Exam (1 Hour) - fixed at 25%

Reports - dependent on Component A assessment type

Based on the outlined strategy above, the assessment strategy has been produced

to holistically map the assessments for the programme. The new strategy has ensured all modules are now aligned, with some assessments now changing to 1) ensure weightings are appropriate, and 2) the range of assessments is evident throughout the programme.

Assessment & Feedback Strategies/Justification

Presentations

Presentations are delivered to the module lead and normally recorded for moderation purposes. Presentations give students opportunity to demonstrate their understanding of a subject area, as well as provide an opportunity for tutors to propose questions to explore knowledge as appropriate. Presentation and communication skills are developed across the programme to promote confidence building and develop public speaking skills, and opportunities for mock presentations and formative feedback will be provided.
Upon completion of the assessment summative written feedback is provided as per standard feedback policy.

Exams

Exams are sat formally. Although grades are provided, feedback is not given for exams/access to marked papers, however tutors are happy to discuss results generalised feedback. Opportunities for Mock exams and summative feedback are provided throughout the module, and exam techniques are also discuss across the programme.

TCA’s

Time Constrained Assessments (TCAs) are contained assessments sat in exam

conditions with access to specialist software or hardware as required by the module. Summative written feedback for TCAs is provided, and opportunities for mock assessments and formative feedback will be provided throughout the programme.

Reports

Summative written feedback for reports is provided as per standard feedback policy. Summative feedback is delivered holistically across the programme, with specialist sessions delivered in report writing techniques and academic research skills. The student support team also provide individualised sessions that can be booked upon request.

Practical Portfolios

Practical portfolios usually consist of a practical project that students are required to create (eg a software solution or website) and associated documentation. Written formative feedback is provided as per normal requirements. Summative feedback on practical elements is provided throughout module delivery as students learn and develop the required techniques.

Student support: Academic writing and research skills are delivered through the HE.LP scheme, which is embedded in the tutorial programme.

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Work-based and placement learning and collaborative projects to enhance career prospects

Opportunities for overseas trips and visits to enhance wider skills and develop multicultural understanding for example Visiting the Gambia and supporting the local

schools, and taking part in cultural trips such as visiting James Island (slave trade).

Specialist input from guest lecturers and engagement with external agencies for example working with external agencies such as Visit Somerset to meeting the digital needs of local business (website development and training).

Opportunities to engage in World Skills UK.

In addition, UCW has multiple systems in place to ensure the student voice is heard, and quality of provision. These include (but not exclusive to):

Staff Student Liaison Committees (SSLCs)

National student survey (NSS)

Student tutorials

Module evaluation questionnaires completed by the students

Annual module reports are completed by the module leaders and academics delivering on the modules, reflecting on module performance, student feedback, and forming a module action plan for continued quality improvement.

An annual programme report is completed by the programme lead, reflecting on module and programme performance, student feedback, NSS data, and forming a programme action plan for continued quality improvement.

Part B: Programme Structure

Year 1

The student must take 120 credits from the modules in Year 1.

Year 1 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
UFCF7R-30-1	Database Design 2022-23	30
UFCFYQ-30-1	Network Infrastructure 2022-23	30
UFCFPE-30-1	Software Design and Development 2022-23	30
UFCFRE-30-1	Web Technologies and Platforms 2022-23	30

Year 2
The student must take 120 credits from the modules in Year 2.

Year 2 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
UFCFBT-15-2	Advanced Networking 2023-24	15
UFCFAR-15-2	Cyber Security Fundamentals 2023-24	15
UFCFME-30-2	Object Oriented Software Design and Development 2023-24	30
UFCF9R-15-2	Project Management 2023-24	15
UFCF8R-30-2	Webapp Development 2023-24	30
UFCFCT-15-2	Work-based Experience 2023-24	15

Year 3
The student must take 120 credits from the modules in Year 3.

Year 3 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit

UFCFSC-30-3	Advanced Web Development and Platforms 2024-25	30
UFCFDT-15-3	Collaborative Project Management 2024-25	15
UFCFCR-30-3	Collaborative Software Development Project 2024-25	30
UFCFET-15-3	Emerging Technologies 2024-25	15
UFCFBR-30-3	Internet of Things (IoT) 2024-25	30

Part C: Higher Education Achievement Record (HEAR) Synopsis

Computer development and digital applications evolve rapidly within the technology industries, but the fundamental knowledge and skills that enable their development, remains the same. For this reason, skill development, theoretical knowledge and the application of underpin the programme.

Alongside both skill and digital knowledge, application and understanding; students are actively encouraged to pursue personal career ambitions; not just for industry employment, but to develop life long learning, financial sustainability and industry engagement.

Part D: External Reference Points and Benchmarks

There are no PSRB requirements for this programme. This programme has been designed to embed the principles, knowledge, application and skills outlined in the UK Quality Code for Higher Education's Subject Benchmark Statement for Computing (October 2019). Programme delivery will also be informed by the UN's Sustainable Development Goals.

Part E: Regulations

Approved to University Regulations and Procedures.