

PROGRAMME SPECIFICATION

Course record information

This document should be read in conjunction with the level 4-6 programme specification

Name and level of final award:	BSc Computer Science BEng Software Engineering BSc Business Information Systems BSc Computer Games Development BSc Computer Network Security BEng Smart Computer Systems BSc Data Science and Analytics <i>This programme specification details only the foundation year of the above 4-year courses. Final award is dependent on the student's chosen pathway</i>
Name and level of intermediate awards:	Foundation Certificate
Awarding body/institution:	University of Westminster
Teaching Institution:	University of Westminster
Status of awarding body/institution:	Recognised Body
Location of delivery:	Cavendish
Language of delivery and assessment:	English
Mode, length of study and normal starting month:	1 year full-time for foundation year (+ 3 further years for final BSc award)
QAA subject benchmarking group(s) :	Computer Science UG
Professional statutory or regulatory body:	British Computer Society Accreditation for final BSc awards.
Date of course validation/review:	2017
Date of programme specification approval:	2020
Valid for cohorts:	2020/1 onwards

Admissions requirements

There are also standard minimum [entry requirements](#) for all undergraduate courses. Students are advised to check the standard requirements for the most up-to-date information. Please ensure you check the “with foundation” version of the course you would like to apply for, as differing entry criteria apply.

A decision will be made on the basis of your application form alone. However, the selection process may include an interview to demonstrate your strengths in addition to any formal entry requirements.

More information can be found here: westminster.ac.uk/courses/undergraduate/how-to-apply

Aims of the course

This programme is part of a suite of undergraduate computer science and engineering courses which forms the foundation year (year 0) of an integrated four-year BSc/BEng degree in Computer Science, Software Engineering, Business Information Systems, Computer Games Design, Computer Network Security, Smart Computer Systems and Data Science and Analytics.

The primary aim of the foundation year is to prepare students for further study at levels 4-6 on their chosen course by giving them a solid foundation in the knowledge and skills required to commence level 4 (year 1 undergraduate). It is recognised that students commencing study at foundation level will not have the requisite qualifications or standard required for admissions at level 4 or may be returning to study after a long break.

The Computer Sciences and Engineering Foundation course will produce students ready for level 4 who;

1. are well informed on, and have a secure comprehension of, appropriate aspects of computer science and computer systems engineering,
2. are proactive and confident independent learners;
3. can integrate information from a variety of disciplines;
4. possess practitioner and career-related skills;
5. have a clear view of future study and career opportunities open to them after graduation;
6. are acculturated into the discipline and practices of higher education.

What will you be expected to achieve?

Learning outcomes are statements on what successful students have achieved as the result of learning. These are threshold statements of achievement the learning outcomes broadly fall into four categories:

- The overall **knowledge and understanding** you will gain from your course (KU).
- **Graduate attributes** are characteristics that you will have developed during the duration of your course (GA).

- **Professional and personal practice learning outcomes** are specific skills that you will be expected to have gained on successful completion of the course(PPP)
- **Key transferable skills** that you will be expected to have gained on successful completion of the course. (KTS)

Level 3 learning outcomes

Upon completion of level 3 (foundation year) you will be able to:

- L3.1 Recognize and employ appropriate mathematical, computational and scientific skills to solve simple but realistic problems in computer science and engineering; (KU, PPP)
- L3.2 Demonstrate good understanding of fundamental facts, major concepts and theories associated with computer science, including understanding of technology related to computer systems and networks (KU, PPP)
- L3.3 Identify, and use with due regard for quality and validity, a variety of information sources (KTS)
- L3.4 Given prescribed methods, design, implement, debug and test simple programs in a high-level language; (KTS, GA).
- L3.5 Demonstrate competence in appropriate interpersonal and team-working skills (PPP, KTS);
- L3.6 Communicate clearly, ideas, concepts and numerical and technical information via appropriate means (KTS, GA)

Learning Outcome	Modules Where Addressed
L3.1	Foundation Mathematics, Programming, Information Systems and Data Representations
L3.2	Computer Systems and Networks, Programming
L3.3	Information Systems and Data Representations, 3ACHE004W
L3.4	Programming, Information Systems and Data Representations
L3.5	Critical Thinking for Academic and Professional Development, Introduction to Academic Practice
L3.6	Foundation Mathematics, Critical Thinking for Academic and Professional Development, Introduction to Academic Practice

How will you learn?

The learning and the teaching of the course relies on a mixture of face-to-face teaching and tutorial sessions using both didactic and student-centred styles. This strategy is appropriately supported with technology-enhanced learning where applicable to encourage mastery of the knowledge base. Much of the learning activities of the course rely on a blended approach which mixes classroom-based activities with on-line study material. Planned learning activities relate directly to the stated learning outcomes which have been defined to reflect both subject-related knowledge, intellectual and manual or practical skills along with an awareness of the professional and ethical contexts within which disciplines must operate. In addition to the formal programmed teaching & learning sessions, the School operates a series of research seminars and 'academic conversations' given by invited expert speakers or staff from within the university. Attendance at such events allows all students within the School the chance to learn about cutting-edge research and scientific developments.

Self-directed and tutor-directed private study forms a significant part of the learning experience. Computer laboratory based practicals will begin to develop the necessary 'hands-on' skills required of competent practitioners within the chosen discipline. Some students on the Foundation programme are returning to study after a period of time, and the Personal Tutorial System will provide additional opportunities for students to develop or enhance appropriate study skills and to gain the confidence required to make the transition to higher education.

How will you be assessed?

In order for students to demonstrate that they have met the course learning outcomes the foundation course offers a variety of assessment which aim to allow students to evidence their skills and knowledge *via* written and oral means. Typically, the diet of assessments for a module consists of two or three summative exercises. The assessment menu will consist of individual work including in class tests, reports, laboratory based exercises and data-based exercises. Suitably well-chosen integrative assignments will help to ensure continuity of learning across disciplines. All modules are assessed *via* coursework only. Attempting assessments is not just a means to determine attainment but also a learning opportunity. Thus, formative (practice) assessments, including 'mock' assessment and exercises, self-assessment tests and monitoring by tutors of continuous activities will help students to undertake their own evaluation of their command of the material and so adapt their learning strategy according to need.

Employment and further study opportunities

At the completion of four years of study, students will be able to demonstrate the following five Graduate Attributes:

- Critical and creative thinkers
- Literate and effective communicator
- Entrepreneurial
- Global in outlook and engaged in communities
- Social, ethically and environmentally aware

Successful Foundation students' progress to BEng/BSc programmes within the University of Westminster or other institutions of higher education and thus gain valuable degrees in their chosen areas of interest. Recent results show that students who do well on the Foundation course invariably graduate with higher classification degrees in their chosen subject than those who enter at level 4. Inclusion within the curriculum of activities which support the development of 'Graduate Attributes' is an acknowledgment that future long-term career success is dependent upon several generic factors which support discipline specific knowledge in creating effective professional practitioners. University of Westminster courses capitalise on the benefits that London as a global city and as a major creative, intellectual and technology hub has to offer for the learning environment and experience of our students.

Alignment of Graduate Attributes to the Learning Outcomes at Foundation Level.

Graduate Attribute	Learning Outcome
Critical and creative thinkers	L3.1, L3.3, L3.4
Literate and effective communicator	L3.3, L3.5, L3.6
Entrepreneurial	L3.5
Global in outlook and engaged in communities	L3.5, L3.6
Social, ethically and environmentally aware	L3.2

Course structure

This section shows the core and the option modules available as part of the course and their credit value. Full-time Undergraduate students study 120 credits per year. Somewhat unusually, the Foundation year does not offer students any option or elective modules. The subject menu is restricted to those aspects of basic computer science, computer systems, mathematics and academic skills which will provide a solid platform for further study.

Credit Level 3				
Module code	Module title	Status	UK credit	ECTS
3COSC004W	Foundation Mathematics	Core	20	10
3COSC005W	Programming	Core	20	10
3COSC006W	Computer Systems and Networks	Core	20	10
3COSC007W	Information Systems and Data Representation	Core	20	10
3ACHE004W	Critical Thinking for Academic and Professional Development	Core	20	10
3ACHE003W	Introduction to Academic Practice	Core	20	10
Award of Foundation Certificate available or progression to level 4				

Professional Body Accreditation or other external references

Not applicable to the level 3 provision. Successful students who graduate after 4 years of study with BEng/BSc degree can obtain recognition from the British Computer Society (BCS)

Academic regulations The current Handbook of Academic Regulations is available at westminster.ac.uk/academic-regulations

Course Specific Regulation

Foundation Mathematics must be passed without condonement to proceed to level 4.

How will you be supported in your studies?

Course Management

Your course is managed through the School of Computer Science and Engineering within the College of Design, Creative and Digital Industries. The Course Leader and the teaching team will meet you in the induction programme and can help you with enrolment, registration, and orientation to the university, its processes and the culture of higher education. The Course Leader is responsible for development and management of the course in conjunction with the Head of School and the School Learning & Teaching co-ordinator.

The course is monitored each year by senior members of the College to ensure that it is running effectively and that issues that might affect the student experience have been appropriately addressed. Staff will consider the outcomes from Student Staff Exchange (SSE) meetings, evidence of student progression and achievement to evaluate the effectiveness of the course.

Academic Support

Upon arrival, an induction programme will introduce you to the staff responsible for the course, the campus on which you will be studying, the Library and IT facilities, additional support available and to your Campus Registry. You will be provided with the Course Handbook, which provides detailed information about the course. Each course has a course

leader or Director of Studies. All students enrolled on a full-time course and part time students registered for more than 60 credits a year have a personal tutor, who provides advice and guidance on academic matters. The University uses a Virtual Learning Environment called Blackboard where students access their course materials, and can communicate and collaborate with staff and other students. Further information on Blackboard can be found at westminster.ac.uk/blackboard.

Learning Support

The Academic Learning Development Centre supports students in developing the skills required for higher education. As well as online resources in Blackboard, students have the opportunity to attend Study Skills workshops and one to one appointments.

Learning support includes four libraries, each holding a collection of resources related to the subjects taught at that site. Students¹ can search the entire library collection online through the Library Search service to find and reserve printed books, and access electronic resources (databases, e-journals, e-books). Students can choose to study in the libraries, which have areas for silent and group study, desktop computers, laptops for loan, photocopying and printing services. They can also choose from several computer rooms at each campus where desktop computers are available with the general and specialist software that supports the courses taught at their School. Students can also securely connect their own laptops and mobile devices to the University wireless network.

Support Services

The University of Westminster Student and Academic Services department provide advice and guidance on accommodation, financial and legal matters, personal counselling, health and disability issues, careers, specialist advice for international students and the chaplaincy providing multi-faith guidance. Further information on the advice available to students can be found at westminster.ac.uk/student-advice. The University of Westminster Students' Union also provides a range of facilities to support students during their time at the University. Further information on UWSU can be found at westminster.ac.uk/students-union.

How do we ensure the quality of our courses and continuous improvement?

The course was initially approved by a University Validation Panel in 2017. The panel included internal peers from the University, academic(s) from another university and a representative from industry. This helps to ensure the comparability of the course to those offered in other universities and the relevance to employers.

The course is also monitored each year by the College to ensure it is running effectively and that issues which might affect the student experience have been appropriately addressed. Staff will consider evidence about the course, including the evidence of student surveys, student progression and achievement and reports from external examiners, in order to evaluate the effectiveness of the course.

A Course revalidation takes place periodically to ensure that the curriculum is up-to-date and that the skills gained on the course continue to be relevant to employers. Students meet with revalidation panels to provide feedback on their experiences. Student feedback from previous years is also part of the evidence used to assess how the course has been running.

How do we act on student feedback?

¹ Students enrolled at Collaborative partners may have differing access due to licence agreements.

Student feedback is important to the University and student views are taken seriously. Student feedback is gathered in a variety of ways.

- Through Student Staff Exchange meetings students have the opportunity to express their voice in the running of their course. Student representatives are elected to SSE to expressly represent the views of their peer. The University and the Students' Union work together to provide a full induction to the role of the student representatives.
- Each School also has its own School Student Staff Exchange meetings with student representatives; this enables wider discussions across the School. Student representatives are also represented on key School and university committees.
- All students are invited to complete a questionnaire before the end of each module. The feedback from this will inform the module leader on the effectiveness of the module and highlight areas that could be enhanced.
- Final year Undergraduate students will be asked to complete the National Student Survey which helps to inform the national university league tables.

Please note: This programme specification provides a concise summary of the main features of the course and the learning outcomes that a student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. This specification should be read in conjunction with the Course Handbook provided to students and Module Handbooks, which provide more detailed information on the specific learning outcomes, content, teaching, learning and assessment methods for each module.

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