

## Course record information

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|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Name and level of final award</b>                                    | <ul style="list-style-type: none"> <li>• Bachelor of Science with Honours - Computer Science</li> <li>• Bachelor of Science with Honours - Computer Science with Industrial Experience</li> <li>• Bachelor of Science with Honours - Computer Science with International Experience</li> </ul> <p>The award is Bologna FQ-EHEA first cycle degree or diploma compatible</p> |
| <b>Name and level of intermediate awards</b>                            | <ul style="list-style-type: none"> <li>• Bachelor of Science (BSc) - Computer Science</li> <li>• Diploma of Higher Education (Dip HE) - Computer Science</li> <li>• Certificate of Higher Education (CertHE) - Computer Science</li> </ul>                                                                                                                                  |
| <b>Awarding body/institution</b>                                        | University of Westminster                                                                                                                                                                                                                                                                                                                                                   |
| <b>Teaching institution</b>                                             | University of Westminster                                                                                                                                                                                                                                                                                                                                                   |
| <b>Status of awarding body/institution</b>                              | Recognised Body                                                                                                                                                                                                                                                                                                                                                             |
| <b>Location of delivery</b>                                             | Primary: Central London                                                                                                                                                                                                                                                                                                                                                     |
| <b>Language of delivery and assessment</b>                              | English                                                                                                                                                                                                                                                                                                                                                                     |
| <b>QAA subject benchmarking group(s)</b>                                | <p><a href="#">QAA Subject Benchmark Statement - Computing March 2022</a></p> <p>British Computer Society guidelines on accreditation</p>                                                                                                                                                                                                                                   |
| <b>Professional statutory or regulatory body</b>                        | British Computer Society (BCS); This course is CIP and partial CEng accredited by the BCS                                                                                                                                                                                                                                                                                   |
| <b>Westminster course title, mode of attendance and standard length</b> | <ul style="list-style-type: none"> <li>• BSc Computer Science FT, Full-time, September start - 3 years standard length with an optional year abroad or placement</li> </ul>                                                                                                                                                                                                 |
| <b>Valid for cohorts</b>                                                | From 2026/7 Level 4 entrants from 2026-7                                                                                                                                                                                                                                                                                                                                    |

## Admissions requirements

There are standard minimum entry requirements for all undergraduate courses. Students are advised to check the standard requirements for the most up-to-date information. For most courses a decision will be made on the basis of your application form alone. However, for some courses the selection process may include an interview to demonstrate your strengths in addition to any formal entry requirements. More information can be found here: <https://www.westminster.ac.uk/study/undergraduate/how-to-apply>

## Recognition of Prior Learning

Applicants with prior certificated or experiential learning at the same level of the qualification for which they wish to apply are advised to visit the following page for further information:

<https://www.westminster.ac.uk/current-students/guides-and-policies/student-matters/recognition-of-prior-learning>

## Aims of the programme

The BSc Computer Science degree equips you with the knowledge, technical skills and professional behaviours needed to solve real-world computing problems and contribute effectively in a rapidly evolving digital environment. You develop a strong foundation in computer science, experience with industry-standard tools, and the ability to communicate, think critically and apply responsible and ethical practice. You also have opportunities to build specialist expertise that supports your early career development and progression into advanced study.

The programme aims to:

- Give you knowledge and understanding of the fundamental principles, methods and technologies that underpin the discipline of computing;
- Develop your technical expertise and practical experience so you can work effectively across a wide range of careers in computing;
- Provide you with a solid grounding in software engineering principles across the full software development lifecycle;
- Enable you to use industry tools, environments and professional techniques to design and build software applications and solutions;
- Help you apply your knowledge and skills to real business and technical problems, promoting a disciplined, professional and responsible approach to software development;
- Provide a motivating and inclusive learning environment that supports your intellectual, personal and social development, encouraging you to become an independent and self-critical problem-solver;
- Prepare you for continued study at an advanced level, whether through postgraduate study or ongoing professional development.

## Employment and further study opportunities

University of Westminster graduates 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

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.

During your degree, you have opportunities to gain real experience of professional practice. At Level 5, you take part in a short-term work-based learning project through the Agile Team Project module. You work individually or in a small team to address a real problem set by an external organisation, apply your technical skills to a practical scenario, and receive support from the module team throughout. This experience helps you develop core employability skills such as problem-solving, teamwork, communication, and commercial awareness.

After completing your second year, you also have the option to take a year in industry, where you apply your knowledge directly in a professional environment, or an International Experience Year, which allows you to study or work abroad and develop global awareness, intercultural competence, and independence. The Careers Development Centre and the course team support you in finding and securing both types of placements, offering guidance on applications, CV preparation, and employer engagement.

Graduates of the BSc Computer Science course are well-prepared for a wide range of technical roles. Typical career paths include software developer, backend developer, mobile app developer, DevOps engineer, cloud engineer, data engineer, cybersecurity analyst, technical consultant, and systems developer. The course also provides a strong foundation for specialist roles in areas such as AI, robotics, web engineering, and human-computer interaction.

As an accredited programme, the degree supports progression toward professional registration and postgraduate study. By the time you graduate, you will have experience with industry-standard tools and practices, a portfolio of technical work, and the confidence to contribute effectively in a professional computing environment.

## What will you be expected to achieve?

Learning outcomes are statements of what successful students have achieved as a 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)
- Cognitive Skills, are learning outcomes that help build a conceptual understanding that is necessary to devise and sustain arguments, and/or to solve problems and comment on research.

**Level 4 course learning outcomes:** upon completion of Level 4 you will be able to:

- L4.01 Use appropriately the client-server architecture with respect to client design and security implications ( KU )
- L4.02 Apply core mathematical elements to solve algorithmic problems ( KU )
- L4.03 Describe the structure of a computing system, the design of its basic components and explain the interactions of hardware and software components ( KU )
- L4.04 Analyse small scale problems and design their solutions by applying algorithmic and mathematical techniques ( PPP )
- L4.05 Methodically capture user requirements and create a specification that meets them ( PPP )
- L4.06 Describe, create and manipulate simple data collections through their underlying representation ( PPP )
- L4.07 Apply programming principles and constructs to implement solutions to small scale problems ( PPP )
- L4.08 Recognise and mitigate risk and critically explain behaviour constraints of a professional code of conduct towards third parties in a dynamic, diverse and inclusive and sustainable computing ecosystems including the transparent and responsible use of digital and AI assisted tools. ( KTS )
- L4.09 Following guidance, review literature in Computer Science and present in written and oral form own work and learning, critically comparing, contrasting and evaluating the findings ( KTS )

**Level 5 course learning outcomes:** upon completion of Level 5 you will be able to:

- L5.01 Analyse and apply a standard design language to produce clear, structured and formally specified representations of software systems. ( KU )
- L5.02 Explain and evaluate common security risks in computer systems, assessing their implications and the effectiveness of potential mitigation strategies. ( KU )
- L5.03 Explain and compare the core principles of modern operating systems, evaluating how these principles support practical operational needs. ( KU )
- L5.04 Demonstrate how information can be modelled, stored, manipulated and retrieved, and apply these concepts to develop scalable, object-oriented software solutions. ( PPP )
- L5.05 Apply object-oriented design, algorithmic reasoning and mathematical methods to develop and justify solutions to medium-scale computational problems. ( PPP )
- L5.06 Analyse user–system interactions across multiple platforms and evaluate interface design issues, proposing improvements supported by established HCI principles. ( PPP )
- L5.07 Compare and evaluate software frameworks and architectural approaches, and implement object-oriented solutions that are appropriate to the problem context. ( PPP )
- L5.08 Plan, manage and deliver a medium-scale software project using appropriate software engineering principles, reflecting on progress and adapting plans where necessary. ( KTS )
- L5.09 Demonstrate professional responsibility in the development of high-quality computing solutions, incorporating ethical, EDI and sustainability considerations, and present and defend your work effectively using appropriate communication methods supported by research. ( KTS )

**Additional Year course learning outcomes:** upon completion of Additional Year you will be able to:

- 1EY.1 Enable personal development by devising a programme of international study that complements the content of the home degree programme and/or develops other interests ( GA PPP KTS )

- 1EY.2 Appreciate the challenges and opportunities of studying/ working in an international context ( GA PPP KTS )
- 1EY.3 Demonstrate an understanding of, and respect for, the cultural norms and differences of the host country at a societal level as part of an inclusive, global outlook. ( GA PPP KTS )
- 1PY.1 Experience commercial application of engineering knowhow and identify the factors affecting products and services in IT industry. ( KU GA PPP KTS )
- 1PY.2 Demonstrate the acquisition of a range of professional, practical, and key-transferrable skills relevant to the fields of computing ( KU GA PPP KTS )
- 1PY.3 Take personal responsibility for directing your own learning and future career making the best use of the opportunities, experiences and people that were available to you during your placement year. ( GA PPP KTS )
- 1PY.4 Draw upon the diverse approaches, perspectives, knowledge and experience of a diverse workforce, treating all individuals with respect and recognising their contribution to the host organisation ( KU GA PPP KTS )

**Level 6 course learning outcomes:** upon completion of Level 6 you will be able to:

- L6.01 Critically evaluate the principal threats to computer systems and network security, assessing their impact on system integrity and organisational risk. ( KU )
- L6.02 Analyse, design and justify large-scale data systems that meet complex retrieval or decision-making requirements for computer systems and their clients. ( PPP )
- L6.03 Construct and implement a comprehensive technical solution to an advanced problem, selecting and applying appropriate programming languages and tools. ( PPP )
- L6.04 Independently formulate, refine and validate system requirements for a large-scale software problem, using appropriate modelling languages and development tools. ( PPP )
- L6.05 Manage and evidence the complete life cycle of a computer science project, demonstrating an entrepreneurial mindset and addressing stakeholder needs while integrating sustainability, EDI considerations and the ethical governance of AI-assisted methods. ( KTS )
- L6.06 Critically review Computer Science literature with guidance, and communicate your own work and learning through written and oral formats that compare, contrast and evaluate key findings. ( KTS )
- L6.07 Apply appropriate research methodologies to conduct independent enquiry in computer science, producing a report that demonstrates critical thinking and well-reasoned conclusions. ( KTS )

## How will you learn?

### Learning methods

The BSc Computer Science course uses a variety of teaching and assessment methods to ensure that you are supported to achieve your full potential and the best possible outcome. A principal aim of the course is to prepare you for professional practice or further study in computing. To this end, the course is organised into a structured set of modules at different levels, each directly aligned with the aims and learning outcomes of the programme. These modules provide the main learning opportunities across the course. Every module consists of learning activities delivered over several weeks, designed to help you develop the knowledge and skills required in computer science.

A key principle that underpins the learning and teaching methods on this course is learning through practice. To understand and master the specialist skills and techniques required in computing, you learn by doing. This applies to practical programming and system development tasks through project work, as well as analytical and problem-solving skills through the application of taught principles to technical challenges.

Much of your learning takes place through active participation in interactive practical sessions. At the end of these sessions, you receive feedback to help you understand your progress. For example, laboratory activities often form part of the formative assessment process, where you are supported to complete tasks and receive written, verbal, or qualitative feedback. These formative activities build your confidence and capability so that you are well prepared for the final summative assessments in each module. Throughout the course, lecturers provide feedback individually or to the whole class.

To develop transferable and professional skills, you take part in a range of activities such as group work, code reviews, presentations and collaborative problem-solving tasks. These experiences help you build teamwork, communication and time-management skills. You will also be required to present and defend your work, which enables you to reflect critically on your learning and develop the ability to communicate your ideas clearly and concisely.

### How is Equality, Diversity, and Inclusivity (EDI) addressed in your course

Equality, Diversity and Inclusivity are embedded throughout the BSc Computer Games Development programme. You learn in an environment that is supportive, respectful and accessible, with teaching methods and learning resources designed to meet a wide range of needs and backgrounds. You are encouraged to work in ways that reflect your interests, strengths and career ambitions, and you will have opportunities to shape your learning through your project choices and optional modules.

You study in a community built on mutual trust and respect, where collaboration and open discussion are central to the learning experience. Teaching materials are designed to be as inclusive as possible, and staff work with you to identify and remove barriers to learning. A range of assessment types is used across the course to give you different ways to demonstrate your abilities.

You benefit from an inclusive physical and digital learning environment, access to specialist support where required, and exposure to a diverse set of perspectives through guest speakers, group work and extracurricular activities such as game jams. The course team is committed to ensuring that you can participate fully, develop confidence, and succeed in a diverse and changing industry.

## **Sustainability**

This programme aligns with the University's commitment to the UN Sustainable Development Goals and the *Being Westminster* values by embedding sustainability thinking across all levels of study. You will be encouraged to consider the environmental and economic impacts of technology and practice as part of your learning, with each level of the course integrating domain-relevant sustainability principles. This ensures that, as you progress, you develop both the technical expertise and the responsible mindset expected of modern computing and engineering professionals.

## **Teaching methods**

We use a range of teaching methods to support your learning. Our aim is to prepare you for professional practice by exposing you to industry-relevant tools, techniques and development environments throughout the course.

You learn through lectures, practical classes, workshops, laboratory sessions, project work, individual supervision and guided online materials. Lectures introduce fundamental concepts, methods and development strategies, and help you understand how different areas of computer science connect. These sessions include interactive elements to encourage active engagement.

Practical classes and laboratories give you hands-on experience with programming, software tools and problem-solving tasks. You are encouraged to collaborate with others as you apply ideas from lectures to real-world scenarios. Workshops, sometimes delivered with input from industry experts, help you work towards key project milestones and develop skills relevant to professional practice.

Some modules use online quizzes and other activities to support remote learning. These quizzes provide immediate feedback, help you monitor your understanding and allow tutors to identify areas where additional support may be needed.

Authentic assessment is embedded across the course so that you practise skills required in the computing profession. You will work on investigative tasks, applied technical problems and project-based assignments where you create artefacts that reflect real software development contexts.

Your final-year project brings together the knowledge and skills gained across the programme. You will design and deliver a substantial piece of work, supported by an academic supervisor who guides you through the process.

To ensure accessibility and flexibility, each module provides online support such as access to learning materials, reading lists, discussion spaces and virtual study rooms. You also receive academic support from module leaders, your personal tutor and the course team at key decision points, such as selecting option modules or choosing your final-year project.

Independent study is an essential part of the course. We help you develop the habits and skills needed for continual professional development (CPD) through group-based activities, taught frameworks, extracurricular opportunities and assessment formats that encourage planning, reflection and self-directed learning.

## **Assessment methods**

Assessment and feedback are central to your learning. They help you understand your progress, reflect on what you have achieved, identify areas for improvement and make informed decisions about your independent study. Assessment on the BSc Computer Science course is guided by the principles of Purpose, Progression and Personalisation.

### **Purpose**

Assessments are designed to be authentic, giving you opportunities to apply your computing knowledge and professional skills to real-world problems using industry-relevant tools and techniques. Each assessment method is clearly aligned with the module learning outcomes, and the workload is balanced so that you can manage your time effectively across the course.

### Progression

Assessments are structured to support your development over time. You encounter a variety of assessment types that encourage new learning rather than unnecessary repetition. Less familiar formats are introduced gradually, supported by formative activities such as practice labs, workshops, or targeted exercises that help you prepare for summative tasks.

### Personalisation

You are encouraged to make assessments your own through your design choices, implementation approaches and reflective work. You receive timely feedback on all assessments, with clear guidance on how to improve your performance in future tasks.

Across the programme, assessment is designed to be:

- demonstrative, allowing you to test and consolidate your understanding;
- rigorous, requiring correct, efficient and well-reasoned solutions;
- challenging, encouraging deep analysis and problem-solving;
- workplace relevant, reflecting the expectations and practices of the computing profession.

You complete a range of assessment types, from small technical tasks carried out in practical sessions to larger individual and group projects developed over a full semester. Some assessments require independent work, while others involve teamwork that mirrors professional software development environments.

Each module includes formative assessment, which does not count toward your final grade but helps you identify your strengths, diagnose gaps in your understanding and receive feedback that guides your progress. Formative activities may include quizzes, short tests, reflective tasks or group-based problem-solving exercises. Summative assessments contribute to your module grade and are always assessed against clear criteria linked directly to the module learning outcomes.

The course provides inclusive, engaging and authentic assessment and feedback strategies designed to give you equal opportunities to demonstrate your abilities and to support your development as a competent and confident computing professional.

| <b>Example of Summative assessments used in the course</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Practical Coursework / Practical based portfolio</b>    | You will be expected to complete lab tasks following lab guidelines, demonstrate competency in the safe, secure and ethical use of tools and either answer specific questions about the labs (Coursework) or analyse your results based on a given scenario (Portfolio). This type of assessment is used to assess the technical skills you acquired during the term and your ability to apply your knowledge gained in the correct context following the correct procedures and standards.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Group Presentation with/without Group Coursework</b>    | You will be working in a group, typically of 3 to 4 members, investigating a specific problem, implementing a product or researching a specific topic. You will be expected to give a presentation to demonstrate your group work. This is usually followed by a brief discussion and questions and answers with your peers and instructor. Generally, you will need to discuss in detail what the group has achieved, and how, and also how the work and the team member responsibilities were distributed. You will also in some cases be expected to write a technical design report. This type of authentic assessment is used to assess your ability to work in teams in a context that closely matches typical teamwork activities found in industry. This demonstrate that you are able to be productive and complete your given tasks in a timely manner. This assessment generally has both a group and an individual mark component. |

|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ICT (exam conditions)</b>                          | You will be expected to sit an in-class test under timed conditions. Typically, these in-class tests can be a closed-book or open-book where you will have access to certain materials. This assessment is used to assess understanding of fundamental concepts, ability to apply theory to a range of problems and to substantiate ownership of work. Tests help ensure you can demonstrate that you have developed a deep understanding of the subject which enables you to cope with complex problems that require deep insight in order to provide secure and optimal solutions. This time-constrained assessment is authentic in that it verifies that you will have sufficient depth and coverage of knowledge in order to successfully solve typical time-critical engineering problems. It also helps you prepare for other professional exams and training. |
| <b>Lab test</b>                                       | You will be expected to complete a specific lab task in the lab. This will be in most cases a timed activity where you are given instructions and a set of tasks to complete. This type of assessment is used to assess and evaluate your technical skills and/or ownership of work submitted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Coursework Case study</b>                          | You will be required to work on a scenario that illustrates a specific problem. You will have to study this problem and assess it and take decisions or make recommendations. This will require research and analysis and potentially implementation in order for you to produce an assessment and recommendation. This type of assessment is used to assess your understanding of topics related to your module and how you can apply your knowledge to a given scenario. This type of assessment usually requires you to evaluate your given solution or method and justify your answers.                                                                                                                                                                                                                                                                          |
| <b>Research essay</b>                                 | You will be expected to conduct in-depth research on a specific topic. This involves examining various resources, concepts and ideas about the topic you are researching. This type of assessment is used to assess your ability to critically evaluate research material and concisely summarise, formulating your own recommendations and suggestions depending on the context.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Oral Assessment and/or Individual Presentation</b> | <p>You will be expected to present in a form of either a presentation or discussion on a given topic. This could also be a part of your dissertation where you will be expected to sit a viva voce assessment to defend your work.</p> <p>This type of assessment is used to assess the authenticity of your work and give you an opportunity to explain the reasoning of the choices, methods and principles used in your work. This assesses a wide range of practical, analytical, and interpretative skills that demonstrate your understanding of the topic and your reflection.</p>                                                                                                                                                                                                                                                                            |
| <b>Artefact</b>                                       | You will be expected to produce a product such as code implementation or a document containing a set of recommendation and guidelines that demonstrate your ability to innovate to provide solutions to a given problem. This assessment is used to assess your ability to produce quality artefacts as this is an essential requirement in the workplace.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Report</b>                                         | You will be expected to produce a document that outlines activities you have undertaken. This can be for lab work that you have completed, a work experience and work placement that you undertook, your reflective comments about a specific topic or a description of the design processes used for a given artefact. This type of assessment is used to evaluate how you can convey technical matters about activities you have conducted in an academic, concise, and justified manner.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Dissertation</b>                                   | This will probably be the biggest document you will have to produce for your entire studies. You will be expected to produce an extended piece of written work, that contains substantial evidence of research, investigations, and possibly implementation, all related to a specific problem you have chosen. Dissertations are the result of your independent work, carried out under the guidance of a supervisor. This type of assessment is used to verify that you have developed a sound understanding of the course material and are able to utilise the skills and knowledge gained in order to produce an independent and substantial project that successfully meets the given requirements.                                                                                                                                                             |

| Graduate Attribute                            | Evident in Course Outcomes                                                                                                                 |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Critical and creative thinker                 | 1PY.1, 1PY.3, L4.01, L4.02, L4.03, L4.04, L4.05, L4.06, L4.07, L5.01, L5.02, L5.03, L5.04, L5.05, L5.06, L5.07, L6.01, L6.02, L6.03, L6.04 |
| Literate and effective communicator           | 1EY.1, L4.09                                                                                                                               |
| Entrepreneurial                               | 1PY.1, 1PY.2, 1PY.3, L6.05                                                                                                                 |
| Global in outlook and engaged in communities  | 1EY.1, 1EY.2, 1EY.3, 1PY.4                                                                                                                 |
| Socially, ethically and environmentally aware | 1EY.2, 1EY.3, 1PY.4, L4.08, L5.08, L5.09, L6.05, L6.06, L6.07                                                                              |

## Course Structure

This section shows the core and option modules available as part of the course and their credit value. Full-time Undergraduate students study 120 credits per year. Course structures can be subject to change each academic year following feedback from a variety of sources.

Modules are described as:

- **Core** modules are compulsory and must be undertaken by all students on the course.
- **Option** modules give you a choice of modules and are normally related to your subject area.
- **Electives**: are modules from across the either the whole University or your College. Such modules allow you to broaden your academic experience. For example, where electives are indicated, you may choose to commence the study of a foreign language alongside your course modules (and take this through to the final year), thereby adding further value to your degree.
- Additional information may also be included above each level, for example, where you must choose one of two specific modules.

## Modules

### Level 4

| Module Code | Module Title                          | Status | UK credit | ECTS |
|-------------|---------------------------------------|--------|-----------|------|
| 4COSC004W   | Computer Systems Fundamentals         | Core   | 20        | 10   |
| 4COSC003W   | Foundations of Professional Computing | Core   | 20        | 10   |
| 4COSC002W   | Mathematics for Computing             | Core   | 20        | 10   |
| 4COSC001W   | Software Development I                | Core   | 20        | 10   |
| 4COSC005W   | Software Development II               | Core   | 20        | 10   |
| 4COSC011W   | Web Design and Development            | Core   | 20        | 10   |

### Level 5

Level 5 option modules are organised according to the following themes:

#### AI & Data Science

5DATA002W Practical Machine Learning  
5SENG003W Data Structures and Algorithms

#### Web Development

5COSC026W Advanced Client-Side Development  
5COSC024W Back-end Web Development

#### Mobile Development

5COSC023W Mobile Application Development

5CCGD015W Mobile Game Development

### **Business Computing**

5BUIS025W Cloud-driven Entrepreneurship and Enterprise

### **Robotics and Intelligent Systems**

5ELEN018W Robotic Principles

### **Game and Immersive Computing**

5COSC025W Human Computer Interaction and User Experience

5CCGD021W Prototyping Game Systems and Mechanics

### **Cyber Security**

5CSEF004W Web Application Penetration Testing

| Module Code | Module Title                                   | Status   | UK credit | ECTS |
|-------------|------------------------------------------------|----------|-----------|------|
| 5COSC021W   | Agile Team Project                             | Core     | 20        | 10   |
| 5COSC022W   | Client-Server Architectures                    | Core     | 20        | 10   |
| 5COSC020W   | Database Systems                               | Core     | 20        | 10   |
| 5COSC019W   | Object Oriented Programming                    | Core     | 20        | 10   |
| 5COSC026W   | Advanced Client-Side Development               | Option   | 20        | 10   |
| 5COSC024W   | Back-end Web Development                       | Option   | 20        | 10   |
| 5BUIS025W   | Cloud-driven Entrepreneurship and Enterprise   | Option   | 20        | 10   |
| 5SENG003W   | Data Structures and Algorithms                 | Option   | 20        | 10   |
| 5COSC025W   | Human Computer Interaction and User Experience | Option   | 20        | 10   |
| 5COSC023W   | Mobile Application Development                 | Option   | 20        | 10   |
| 5CCGD015W   | Mobile Game Development                        | Option   | 20        | 10   |
| 5DATA002W   | Practical Machine Learning                     | Option   | 20        | 10   |
| 5CCGD021W   | Prototyping Game Systems and Mechanics         | Option   | 20        | 10   |
| 5ELEN018W   | Robotic Principles                             | Option   | 20        | 10   |
| 5CSEF004W   | Web Application Penetration Testing            | Option   | 20        | 10   |
|             |                                                | Elective | 20        | 10   |

## **Additional Year**

Students who undertake the 4 year course must pass module 5COSC028W to achieve the award "with Industrial Experience" or pass module 5COSC027W to achieve the award "with International Experience" .

| Module Code | Module Title                                          | Status | UK credit | ECTS |
|-------------|-------------------------------------------------------|--------|-----------|------|
| 5COSC028W   | Computer Science and Engineering Industrial Placement | Core   | 120       | 60   |
| 5COSC027W   | Computer Science and Engineering International Year   | Core   | 120       | 60   |

## **Level 6**

Level 6 Option Modules are organised according to the following themes:

### **AI & Data Science**

6COSC033W Applications of Large Language Models

### **Web Development**

6COSC022W Distributed Systems and DevOps Engineering

**Mobile Development**

6COSC021W iOS Application Development

**Business Computing**

6BUIS024W Business Innovation with Artificial Intelligence

6BUIS025W Financial Technologies

**Robotics and Intelligent Systems**

6ELEN018W Applied Robotics

6NTCM009W Internet of Things

**Game and Immersive Computing**

6MMCS008W Advanced Interactive Media Development

6CCGD007W Game AI

**Cyber Security**

6CSEF003W Defensive Programming Techniques

6CSEF001W Cyber Security Threats and Counter Measures

| Module Code | Module Title                                     | Status   | UK credit | ECTS |
|-------------|--------------------------------------------------|----------|-----------|------|
| 6COSC020W   | Applied AI                                       | Core     | 20        | 10   |
| 6COSC023W   | Computer Science Final Project                   | Core     | 40        | 20   |
| 6COSC019W   | Cyber Security                                   | Core     | 20        | 10   |
| 6MMCS008W   | Advanced Interactive Media Development           | Option   | 20        | 10   |
| 6COSC033W   | Applications of Large Language Models            | Option   | 20        | 10   |
| 6ELEN018W   | Applied Robotics                                 | Option   | 20        | 10   |
| 6BUIS024W   | Business Innovation with Artificial Intelligence | Option   | 20        | 10   |
| 6CSEF001W   | Cyber Security Threats and Counter Measures      | Option   | 20        | 10   |
| 6CSEF003W   | Defensive Programming Techniques                 | Option   | 20        | 10   |
| 6COSC022W   | Distributed Systems and DevOps Engineering       | Option   | 20        | 10   |
| 6BUIS025W   | Financial Technologies                           | Option   | 20        | 10   |
| 6CCGD007W   | Game AI                                          | Option   | 20        | 10   |
| 6NTCM009W   | Internet of Things                               | Option   | 20        | 10   |
| 6COSC021W   | iOS Application Development                      | Option   | 20        | 10   |
|             |                                                  | Elective | 20        | 10   |

Please note: Not all option modules will necessarily be offered in any one year. In addition, timetabling and limited spaces may mean you cannot register for your first choice of option modules.

## Professional body accreditation or other external references

The course has been designed with reference to:

- QAA Subject Benchmark for Computing
- Engineering Council Accreditation of Higher Education Programmes (AHEP), fourth edition
- QAA Guidelines for Preparing Programme Specifications
- SEEC Credit Level Descriptors for Further and Higher Education

### Professional body accreditation

The British Computer Society (BCS) professional accreditation ensures independent validation that the course meets high standards set by the profession. It also benchmarks the course against those of other institutions both nationally and internationally and supports the continued improvement of the course, highlighting areas of best practice across institutions. Being a student on an accredited course provides a pathway to professional registrations such as Chartered IT Professional (CITP), Chartered or Incorporated Engineer (CEng/IEng) and Registered IT Technician (RITTech).

BSc (Honours) Computer Science fulfils the educational requirements of BCS for the CITP and partial CEng accreditation.

## Course management

The BSc (Honours) Computer Science course is under the School of Computer Science & Engineering and the management structure supporting the course is as follows:

- The Course Leader is responsible for day to day running and overall management of the course and development of the curriculum
- The Head of School, holds academic responsibility for the course and other courses within the School
- The Pro Vice-Chancellor and Head of the College of Design, Creative and Digital Industries, holds overall responsibility for the course, and for the other courses run by the College.

## Academic regulations

The current Handbook of Academic Regulations is available at [westminster.ac.uk/academic-regulations](https://www.westminster.ac.uk/academic-regulations).

Course specific regulations apply to some courses.

## 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 and additional support available. You will be provided with a Course Handbook, which provides detailed information about the course. Each course has a course leader or equivalent. 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 utilises 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 <https://www.westminster.ac.uk/current-students/studies/your-student-journey/when-you-arrive/blackboard>

The Academic Learning Development Centre supports students in developing the skills required for higher education. In addition to online resources in Blackboard, students can also attend Study Skills workshops and schedule one-to-one appointments. Further information on the Academic Learning Development Centre can be found at [westminster.ac.uk/academic-learning-development](https://www.westminster.ac.uk/academic-learning-development).

Learning support includes our libraries, each of which holds a collection of resources related to the subjects taught at that site. Students 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.

## Support Services

The University of Westminster's Student and Academic Services department provides a range of advice and guidance. Further information on the advice available to students can be found at <https://www.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 <https://www.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. University Panels normally include internal peers from the University, academic(s) from another university, a representative from industry and a Student Advisor.

The course is also monitored annually by the College to ensure it is running effectively and that any issues that might affect the student experience have been appropriately addressed. Staff will consider evidence from various sources, including student surveys, student progression and achievement, and reports from external examiners, to evaluate the effectiveness of the course and make necessary changes.

Periodic reviews are also conducted to ensure that the curriculum remains up-to-date and that the skills acquired on the course continue to be relevant to employers. Representative students meet with a panel to provide feedback on their experiences. Student feedback from previous years is also part of the evidence used to assess the course's performance.

## **How do we act on student feedback?**

Student feedback is important to the University, and student views are taken seriously. Student feedback is collected in various ways.

- Through student engagement activities at the course and module level, students have the opportunity to express their voice in the running of their course. Course representatives are elected to expressly represent the views of their peers. The University and the Students' Union work together to provide a full induction to the role of the course representatives.
- There are also School Representatives appointed jointly by the University and the Students' Union who meet with senior School staff to discuss wider issues affecting student experience across the School. Student representatives are also represented on key College and University committees.;
- All students are invited to complete a questionnaire for each module. The feedback from this will inform the module leader on the effectiveness of the module and highlight areas that could be improved.
- Final-year undergraduate students will be asked to complete the National Student Survey, which helps inform the national university league tables. Postgraduate students will be asked to complete the Postgraduate Taught Survey (PTES).

This programme specification provides a concise summary of the main features of the course and the learning outcomes that a student may reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities provided. This specification is supplemented by the Course Handbook, Module proforma and Module Handbooks provided to students. Copyright in this document belongs to the University of Westminster. All rights are reserved. This document is for personal use only and may not be reproduced or used for any other purpose, either in whole or in part, without the prior written consent of the University of Westminster. All copies of this document must incorporate this Copyright Notice – 2025©