# Programme Specification: Creative Computing BSc

UNIVERSITY OF WESTMINSTER

## Course record information

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| **Name and level of final award** | • Bachelor of Science with Honours - Creative Computing<br>• Bachelor of Science with Honours - Creative Computing with Industrial Experience<br>• Bachelor of Science with Honours - Creative Computing with International Experience<br>The award is Bologna FQ-EHEA first cycle degree or diploma compatible |
| **Name and level of intermediate awards** | • Bachelor of Science (BSc) - Creative Computing<br>• Diploma of Higher Education (Dip HE) - Creative Computing<br>• Certificate of Higher Education (CertHE) - Creative Computing |
| **Awarding body/institution** | University of Westminster |
| **Teaching institution** | University of Westminster |
| **Status of awarding body/institution** | Recognised Body |
| **Location of delivery** | Primary: Central London |
| **Language of delivery and assessment** | English |
| **QAA subject benchmarking group(s)** | QAA Subject Benchmark Statement - Computing March 2022 |
| **Professional statutory or regulatory body** | British Computer Society (BCS) (Pending: Please see section on Professional body accreditation or other external references for further information) |
| **Westminster course title, mode of attendance and standard length** | • Creative Computing BSc, Full-time, September start - 3 years standard length with an optional year abroad or placement |
| **Valid for cohorts** | From 2025/6 |

## 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 Creative Computing*** programme has been developed in response to the current Digital Tech Industry requirements for graduates that combine creativity and understanding of user-centred design principles, with strong programming and software development skills. This programme has been designed to:

- Provide you with knowledge and understanding of fundamental principles, methods and technologies that underpin the discipline of Creative Computing
- Provide you with knowledge and understanding of design principles across the whole software development lifecycle with emphasis on user-centred design
- Support you develop solid scripting skills and practical experience in the use of industry tools and techniques to develop software and solutions focusing mainly on web and 3D technology
- Support you develop a solid understanding of the contexts in which creative computing subsists in the Digital Industry and prepare graduates with technical expertise, specialisation, practical experience and creative and social skills enabling them to be effective in a rapidly developing range of careers in the wider Creative Tech Industry
- Provide a motivating and inclusive environment enabling you to develop intellectually and socially as an independent and self-critical problem solver
- Prepare you to become commercially aware and able to understand ethical, legal, and social issues, equipped with interpersonal and entrepreneurial skills required in Creative Tech
- Prepare you for continued study at an advanced level, either in formal postgraduate study or as continued professional development.

The first year of study (***Level 4***) follows a guided learning approach to help you transition into Higher Education and develop core skills required for Creative Computing. You are introduced to principles of visual design and user experience, storytelling, and content creation and you follow a user-centered software development approach to design a website and other interactive media prototypes targeting any device. You develop fundamental programming/coding skills and you understand the underpinning mathematical concepts applied to create interactive UI elements and 2D animated digital art. You also develop basic academic and professional skills to help you advance to the next level of your study.

Your second year of study (***Level 5***) helps you extend your knowledge and develop some autonomy. You develop detailed knowledge in Creative Computing focusing mainly on advanced front-end development, 3D interactive media development and more advanced topics of Human-Computer Interaction. You are engaged with problem-solving by yourself and in teams, reflecting on your own strengths and identifying areas to specialise in. Work-based learning is embedded in a core Level 5 module. You can select an option module that will allow you to explore specialised topics relevant to your programme of study, or an elective to broaden your academic experience.

While the core structure of the programme introduces key principles, theories, and skills, in the second and final years of your studies you will be able to select topics that will support you to deepen your knowledge and technical/practical competencies in specialised subject areas and trends of Creative Computing.

During your studies you will be offered the opportunity to expand your career opportunities and your international horizons and gain global skills by taking part in many opportunities to volunteer, study and work overseas at one of our partner institutions.

After the completion of the second year, you may choose to have **a year in industry** (**a placement year**) to strengthen your understanding of industry needs through the direct application of your evolving skills.

Furthermore, you can choose to undertake **an international experience year** as part of your degree at one of our partner overseas institutions such as Institute of Informatics (IIT), Sri Lanka or Westminster International University in Tashkent (WIUT). You will study and reside in the country of a host institution during the year. The content of your study is agreed upon through a Learning Agreement between you, the home institution and the School of Computer Science and Engineering.

In your final year of study (***Level 6***) you learn to work autonomously with your lecturers increasingly being there to support you and challenge your thinking. This is the level that equips you with more specialized knowledge and completes your preparation for going into the Creative Tech industry and further study, with an ability to handle the complexity of large-scale systems and environments and with full control of your further development needs.

Upon graduating, you will have the skills to engage creatively and critically with all the areas of Creative Computing in your society. You will develop the required technical competencies and intellectual and emotional tools to make sense of a

complex and dynamically changing world at various scales. You will be alert to changes in the Creative Computing profession, able to advocate for social change and be prepared for work in a wide spectrum of areas in Creative Computing.

## 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.

Today's organisations need graduates with both good degrees and skills relevant to the workplace. The University of Westminster is committed to developing employable graduates by ensuring that:

- career development skills are embedded in all courses;
- opportunities for part-time work, placements and work-related learning activities are widely available to students;
- staff continue to widen and strengthen the University's links with employers in all sectors, involving them in curriculum design and encouraging their participation in other aspects of the University's career education and guidance provision;
- staff are provided with up-to-date data on labour market trends and employers' requirements, which will inform the service delivered to students.

The ***BSc Creative Computing*** **programme** prepares graduates to pursue a career in the following areas:

- **User experience**
    - User interface design / Web design / User testing;
    - Interaction design.
- **Creative scripting**
    - Web
        - Web development / Full-stack web development;
        - Web Analytics and Search Engine Optimization.
    - 3D
        - VR, XR design and development;
        - Web3/Dapp Content Development.
- **Academic, Creative Tech Research**

The University of Westminster offers additional services and schemes to support students improve their employability perspectives, selectively we mention the following:

- **Virtual skills Academy**, a series of seminars and workshops designed by industry professionals, employers and specialist speakers investing their time to help you stand out from the crowd.
- **Higher Education Achievement Record (HEAR)**, a formal degree transcript that provides a full record of your university achievements, including both academic and extra-curricular learning and experience.
- **Westminster Enterprise Network (WeNetwork)**, the University of Westminster's entrepreneurial community, supporting students and recent graduates to work with businesses, develop entrepreneurial skills, go freelance or found startups.
- **Westminster Employability Award**, an employability achievement award supporting your career and personal development by formally recognising the extra-curricular activities you complete during your time at the University of Westminster.

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

- L4.1 Analyse small-scale problems and design their solutions by applying algorithmic and mathematical techniques ( KU )
- L4.2 Use creative programming and tools to construct interactive and animated elements/assets ( KU PPP )
- L4.3 Employ user-centric approaches to methodically capture requirements and propose interactive media product design solutions that meet them ( GA PPP KTS )
- L4.4 Apply visual design principles to create high-quality UI elements and content for implementation and integration in an interactive digital media product ( KU PPP )
- L4.5 Detail the architecture of a web-based interactive media product, outlining the design of its fundamental components, and the interactions between hardware and software elements ( KU )
- L4.6 Use appropriately the client-server architecture with respect to security implications ( KU )
- L4.7 Demonstrate interpersonal, social and communication skills in interaction with others as a member of a team for the development of creative computing product. ( GA PPP KTS )
- L4.8 Examine the ethical and Equity, Diversity, and Inclusion (EDI) considerations within the realm of creative computing products, emphasizing their implications within interaction design ( GA PPP )

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

- L5.1 Develop interactive, responsive, and accessible web-based products with the use of appropriate interface design technologies, acknowledging cross-browser compatibility, web performance, optimization issues, and security implications ( KU )
- L5.2 Produce code which conforms to software quality metrics such as maintainability, performance, security and reliability and make good use of source control tools ( KU PPP )
- L5.3 Demonstrate how information is modeled, persistently stored, manipulated, and retrieved to provide scalable solutions for medium-scale creative computing problems. ( KU PPP )
- L5.4 Implement creative computing products targeting multiple platforms integrating Equity, Diversity, and Inclusion considerations to ensure universal accessibility and inclusivity for all users ( KU GA PPP )
- L5.5 Critically evaluate the architecture of XR systems and the function of the core components ( KU )
- L5.6 Employ a standard professional process to design, represent and formally communicate the specification of an interactive digital product ( KU GA KTS )
- L5.7 Demonstrate professional and sustainability considerations, in the development of interactive digital products, and be able to present and defend work through various communication channels ( GA PPP KTS )
- L5.8 Demonstrate a critical understanding of industry practice, gain practical insight into creative technology industries, and develop relevant employability skills ( KU GA PPP KTS CS )

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

- L6.1 Methodically and independently develop requirements and design for a substantial interactive digital media product using appropriate methods, languages and tools ( KU GA SS CS )
- L6.2 Employ suitable programming languages and tools to implement a complete and robust technical solution to a complex problem ( KU SS CS )
- L6.3 Apply appropriate research methodologies in carrying out independent research in Creative Computing and

produce a report demonstrating evidence of critical thinking ( PPP KTS )

- L6.4 Appropriately optimise, explain and defend the structure and content of digital marketing elements of an interactive digital product to improve public visibility and retrieval ( KU PPP )
- L6.5 Analyse and evaluate the main security threats in the context of creative computing applications ( KU KTS SS CS )
- L6.6 Critically evaluate industry-standard tools for multiple-platform development to create efficient creative computing applications ( KU )
- L6.7 Analyse and present experimental findings using suitable statistical methods to inform the decision-making in the context of interactive design ( KU PPP KTS SS )
- L6.8 Critically evaluate and deliver on project life cycles, whilst ensuring that Sustainability, Equity, Diversity and Inclusion (EDI), ethical and commercial issues are fully considered where appropriate. ( KU PPP KTS )
- L6.9 Creatively explore and incorporate new and emerging technologies and ideas into creative computing product development. ( KU GA SS CS )

# How will you learn?

## Learning methods

Learning methods are aimed at facilitating your active and critical learning by the acquisition, understanding and application of knowledge, skills and professionalism. The learning methods employed on the BSc Creative Computing vary depending on the type and content of a module and its intended learning outcomes, but all are based on a principle of active engagement in which students develop the responsibility and capacity for their own learning, both within and beyond the classroom.

Learning methods include:

- Class-based learning (lectures, tutorials, workshops), usually augmented by learner engagement with weekly preclass;
- Content provided online (recordings, readings, prep tasks, etc.);
- Team/group work inside and outside of the classroom to enable students to further develop their teamwork skills to work effectively in a professional environment;
- Learner engagement with weekly post-class consolidation and/or practical tasks feeding into the next session;
- Independent study will let you take more control of your own learning and give you the framework that will help you to keep on learning without supervision, including reading and assessment preparation;
- Engagement with library and online sources to develop students research and analysis skills;
- Interaction with external speakers and industry professionals to enable students to appreciate how the taught material is applied across a range of professions and how various technologies / tools / methods / techniques are used across a range of professional activities;
- Informal learning in peer groups;
- Study visits.

The BSc Creative Computing also incorporates experiential, work-based learning.

Students are supported throughout their studies by Blackboard, the University's Virtual Learning Environment (VLE), web-based teaching materials, and the Library and IT services. Blackboard functions as an interactive and dynamic digital learning platform and provides access to sites that give important information related to the course, individual modules, and general university information. The Blackboard module sites are used for online collaborative learning activities and provide ready access to online module readings, seminar plans and assessment schedules, pre-recorded lectures and a wealth of other learning materials. Blackboard is also used for assessment purposes, including electronic coursework submission and feedback.

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

The principles of Equality, Diversity and Inclusivity lay at the heart of the BSc Honours Creative Computing course. The course design ensures that you will have a learning experience that is flexible, respects diversity, encourages active participation and considers students varying needs. For example, the course will encourage and enable you to tailor your learning according to your career ambitions, cultural identity and individual aspirations by allowing you to choose a final year project specialisation within the broad area of creative computing, express your own unique evidenced based

views of various societal and ethical issues, develop your own practical solutions to a given problem set and select option modules that will enable you to specialise or gain greater confidence in various application areas of creative computing. Through this myriad of opportunities and choices the course will equip you with the technical and employability skills required to work in a changing and diverse world. Above all you should be reassured that the course team aims to eliminate all arbitrary barriers to your learning and to work with you to achieve your best outcome.

The learning methods employed by the BSc Creative Computing course are underpinned by three key principles. These are:

- Provision of a learning environment, both physical and digital, that is equitable, diverse and inclusive and which allows you to learn flexibly with materials that will be available to you in a number of learning context and at any time such as mobile and home environments;
- Provision of a supportive and safe learning environment, based on mutual trust and respect, where students are empowered to act as partners in their transformative learning experiences;
- Provision of a forward-looking course curriculum that is work-place relevant, current and authentic.

Practically, you will see this working in the following ways, for example:

- Teaching materials are, where possible, designed to be inclusive for all.
- The active development of mutual trust and respect between students and between staff and students.
- The celebration and encouragement of diversity through the core delivery of the course and extra-curricular activities.
- Emphasis on skill-based learning using a learn-by-practise approach; use of current and industry standard tools chains and methodologies; industry supported projects such as the WBL project;
- The teaching of broader concerns, concepts and skills such as the environment and project management that values inclusivity and diversity.
- A curriculum that is current, global in outlook and targeted at application areas that address real-world challenges.

Practically, you will see our commitment working in the following ways, for example:

- Inclusive learning environment:
    - accessible labs, equipment and materials, and support to students with special learning needs are provided across all modules;
    - a range of assessment modes is employed.
- Diversification of the curriculum:
    - modules like the Interaction Design and Digital Content Creation (Level 4), Human Computer Interaction (Level 5) and Usability Testing and Evaluation (Level 6) discuss how culture and individual differences impact the UX design and cover theories related to design elements and culture, while as part of the New Web Media and Platforms module students are exposed to the opportunities for creativity for all;
    - invited talks by industry professionals will include a diverse representation of speakers;
    - reading lists have been constructed to ensure diversity and representativeness.
- Diverse and inclusive co- and extra-curricular activities:
    - organisation of extracurricular activities (Game and UX Jams) with international partnering institutions offering alternative forms of participation;
    - visit locations will be selected in consultation with students.

## Teaching methods

Our teaching methods are aimed at enabling students' active participation in their learning through knowledge and skills acquisition by means of critical discussion, engagement, self-study and practical experience. The teaching strategies employed in the BSc Creative Computing are wide-ranging and vary across the modules that make up the programme of study. Those selected for an individual module depend on what is most appropriate for the module's topic, learning outcomes, and assessment strategy and may involve lectures, tutorials, workshops, and, for the final Project, individual supervision sessions. All modules combine problem-solving, and critical and theoretical debate with practice-focused discussion and activities. This approach encourages students to actively participate and get immediate individual feedback from peers and/or the teacher. Our teaching practice respects the diversity of experience and opinion and provides a supportive space for learning.

The main teaching methods used in the BSc Creative Computing to facilitate student learning, each complementing the others are as follows:

- Lectures will give you access to expertise and present you with the knowledge you need in your subject (where lectures take place, they include interactive and participatory work).
- Tutorials (hands-on computer lab) will allow you to understand, apply and strengthen your skills under the guidance of a tutor. They are led by a tutor, in appropriate spaces (usually a computer lab, or a VR lab), and during those students will sometimes work alone, sometimes in groups, on practical problem-solving and in training on relevant tools and methods.
- Workshops usually have the format of drop-in sessions and give the opportunity to students to have access to a tutor/mentor that can provide support to topics they practice.
- Individual Supervision is provided to students working on their Creative Computing Final Project. The Creative Computing Final Project module is designed to unify and integrate skills and knowledge gained in the individual taught modules. It provides the opportunity to put into practice and extend what has been learned in relation to specific, real-world contexts. To support you in successfully completing the Creative Computing Final Project, you will be allocated a supervisor who is a member of the academic staff.

To increase accessibility of the learning material and ensure that a diverse range of learners can participate on the course each module will provide the following online support: access to teaching material in a range of formats, online reading lists and access to e-readings, discussion boards, virtual study rooms for students to collaborate, and space for individual and group online meetings. Individual support for each module will be available from the module's teaching staff. At key stages in your academic studies, the decisions you will need to make – such as choice of option modules and Creative Computing Final Project topic – will be guided and supported by your Academic Tutor. Students will also be supported by the Course Leader and helped with personal issues that arise during their studies by their Personal Tutor and, where appropriate, the School Senior Tutor.

Employability and enterprise are embedded in the modules through the use of practical tasks and problem-solving exercises that mirror the workplace and, where possible, incorporate live briefs. You will have access to our XR and Motion capture Labs with cutting-edge Mixed Reality technology and Green Screens.

A network of visiting speakers and mentors keeps you in touch with Creative Tech, while our academic staff supports you in developing new skills.

## Assessment methods

Assessments and feedback are an integral part of the learning process and enable you to gauge your progress in relation to learning outcomes; reflect on what you have learned; identify areas in which you are strong and areas in which you could further develop the right skills to enable success; and help you make informed decisions on the pace and focus of your own independent learning. On the BSc Creative Computing, all assessments and feedback mechanisms are designed to form part of the learning experience and will take a variety of forms. For example, assessments may involve practical exercises ranging from small tasks that might be completed during a tutorial to more complex tasks, such as the design and production of a digital product (interactive prototype, web-site, 3D project, game etc.), data collection and analysis or the investigation of a critical issue. Some of the assessments are designed to be completed individually, whereas other assessments may require students to work as part of a team, emulating as closely as possible the environment students will face in a professional setting.

The type and nature of the assessments employed on the BSc Creative Computing vary depending on the module and its associated learning outcomes. The guiding principles in designing a module’s assessment and its associated feedback are Purpose, Progression and Personalisation.

- **Purpose**:
    - assessment is authentic, meaning that it provides the chance to apply knowledge and competencies to real-world cases, situations and briefs (e.g. client-requirement elicitation, extracting software requirements from given business needs, then designing and implementing a solution, which is facilitated by the close collaboration of the course with the Creative Tech industry);
    - the assessment method(s) used are clearly relevant to the module’s learning outcomes;
    - consideration is given to the amount of effort and time required to complete the task(s) and to maintain a balanced assessment load.
- **Progression**:
    - the choice of assessment method(s) employed provides an opportunity for new learning and contributes to the learning process, and may vary according to the level you study and the targeted learning outcomes to be

achieved;

- assessment(s) are clearly related to the overall pattern of the course, they are developmental and not unnecessarily repetitive;
- less familiar types of assessments are prepared for through formative work or with smaller elements practised in other modules.

- **Personalisation**:
  - you are able to make the assessment your own by choice of content;
  - timely and forward-looking feedback is given for all assessments;
  - guidance on how you can improve your performance in future is given, either individually or as part of a group.

As well as ensuring that students have met the learning outcomes per module, assessment will, where possible and appropriate, be: demonstrative (helping students to learn – evaluation of current knowledge); rigorous (for correct and efficient solutions); challenging (requiring deep understanding and analytical ability); workplace relevant (tasks directly relating to industry and skills valued by employers),

Throughout your learning, you will receive feedback. Feedback will help you reflect on what you have learned so you can identify the areas in which you are strong and the areas in which you need to learn more. Feedback will be given to you in response to the assessment, in response to questions in lectures, seminars, and tutorials, and in the guidance, you get during supervision. But feedback will also come from your interactions with other students and with the industry. All feedback will be useful to help you guide your learning so that you develop the right skills faster.

Each module has both formative and summative assessment types. Formative assessment does not contribute to your overall grades. Formative assessment helps you establish where you are in your learning journey, what you have learnt so far, and where you may have to improve. Formative assessment can be used diagnostically by tutors to enable them to dynamically target their teaching to address any gaps in knowledge. Formative assessment can take the form of a test, quiz, reflective session or group activity.

All summative assessments that contribute to final grades will be assessed against clear assessment criteria stated in module descriptors. These assessment criteria are directly linked to the modules learning outcomes, and they will be used to evaluate the submitted work and to produce written feedback. The BSc Creative Computing course provides inclusive, engaging and authentic assessment and feedback strategies to help provide equal opportunities, cater for different learning styles and to best support the student to successfully complete the course.

| Example of Summative assessments used in the course | |
|---|---|
| Practical Coursework / Practical based portfolio | 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. |
| Group Presentation with/without Group Coursework | 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. |
| ICT (exam conditions) | 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. |
| Lab test | 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. |

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|---|---|
| Coursework Case study | 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. |
| Research essay | 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. |
| Oral Assessment and/or Individual Presentation | 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.<br><br>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 refection. |
| Artefact | You will be expected to produce a product such as a robotic device, electronic circuit, 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. |
| Report | 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. |
| Dissertation | 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 | L4.1, L4.2, L4.3, L4.4, L4.5, L4.6, L5.1, L5.2, L5.3, L5.4, L5.5, L5.6, L5.7, L5.8, L6.1, L6.2, L6.3, L6.4, L6.5, L6.6, L6.7, L6.8, L6.9 |
| Literate and effective communicator | L4.5, L5.4, L5.6, L5.8, L6.1, L6.3, L6.4, L6.7, L6.8 |
| Entrepreneurial | L4.7, L5.4, L5.6, L5.8, L6.1, L6.2, L6.4, L6.6, L6.8 |
| Global in outlook and engaged in communities | L4.5, L5.2, L5.7, L5.8, L6.1, L6.4, L6.6, L6.8 |
| Socially, ethically and environmentally aware | L4.3, L4.8, L5.4, L5.6, L5.7, L5.8, L6.1, L6.3, L6.4, L6.5, L6.6, L6.7, L6.8, L6.9 |

## 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 |
|---|---|---|---|---|
| 4BUIS003W | Business Requirements Analysis | Core | 20 | 10 |
| 4COSC012W | Client-side Development Fundamentals | Core | 20 | 10 |
| 4CCGD006W | Game Enterprise | Core | 20 | 10 |
| 4MMCS007W | Interaction Design and Digital Content Creation | Core | 20 | 10 |
| 4COSC001W | Software Development I | Core | 20 | 10 |
| 4COSC011W | Web Design and Development | Core | 20 | 10 |

### Level 5

| Module Code | Module Title | Status | UK credit | ECTS |
|---|---|---|---|---|
| 5MMCS007W | 3D Interactive Media Development | Core | 20 | 10 |
| 5COSC026W | Advanced Client-Side Development | Core | 20 | 10 |
| 5COSC029W | Creative Computing Group Project | Core | 20 | 10 |
| 5COSC025W | Human Computer Interaction and User Experience | Core | 20 | 10 |
| 5CCGD013W | XR Multimodal Interaction | Core | 20 | 10 |
| 5CCGD011W | Game Engine Architecture | Option | 20 | 10 |
| 5COSC023W | Mobile Application Development | Option | 20 | 10 |
| 5COSC024W | Server-Side Web Development | Option | 20 | 10 |
| | | Elective | 20 | 10 |

### Additional Year

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

### Level 6

| Module Code | Module Title | Status | UK credit | ECTS |
|---|---|---|---|---|
| 6COSC027W | Creative Computing Final Project | Core | 40 | 20 |
| 6COSC026W | New Web Media and Platforms | Core | 20 | 10 |
| 6MMCS009W | Usability Testing and Evaluation | Core | 20 | 10 |
| 6MMCS008W | Advanced Interactive Media Development | Option | 20 | 10 |
| 6MARK017W | Digital Marketing, Social Media and Web Analytics | Option | 20 | 10 |
| 6COSC021W | Mobile Native Application Development | Option | 20 | 10 |
| 6COSC025W | Modern Front-end Web 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:

- QAASubject Benchmark for Computing
- Engineering Council Accreditation ofHigher Education Programmes (AHEP), fourth edition
- QAAGuidelines for Preparing Programme Specifications
- SEECCredit Level Descriptors for Further and Higher Education

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. For you as a student being 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) Creative Computing is intended to fulfil the educational requirements of BCS for the CITP. Due to the 5-year accreditation timeline the course will be considered for the accreditation in 2027. The accreditation will be backdated to include the first intake from September 2025. On successful completion of this process your course will become accredited in 2027.

## Course management

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

- The Head of College holds overall responsibility for the course and for all other courses run by the College of Design, Creative and Digital Industries (DCDI)
- The Head of School holds overall responsibility for all courses offered in the School of Computer Science and Engineering (SCSE)
- The Course Leader for the BSc Creative Computing is responsible for the day-to-day running and overall management of the courses and development of the curriculum
- Each module has a designated Module Leader, who is responsible for the overall management of their module, coordinating the module team, and for the delivery, resourcing and smooth running of the module
- The Course Team comprises the Course Leader and all the members of staff who teach on the course
- The School Senior Tutor coordinates and oversees the School's Personal Tutoring team and has overall responsibility for the School's academic and personal support provided to students throughout their studies.

### Academic regulations

The current Handbook of Academic Regulations is available at 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, 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 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. As well as online resources in Blackboard, students have the opportunity to attend Study Skills workshops and one to one

appointments. Further information on the Academic Learning Development Centre can be found at westminster.ac.uk/academic-learning-development.

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 in their College. 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 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 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 and make changes where necessary.

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?

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

- Through student engagement activities at Course/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 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.

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 they take full advantage of the learning opportunities that are provided. This specification is supplemented by the Course Handbook, Module proforma and Module Handbooks provided to students. 

draft

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