Goldsmiths
UNIVERSITY OF LONDON

BSc (Hons) Creative Computing;

BSc (Hon) Creative Computing with Work Experience

Programme specification

1. Programme details

Item	Information
a) Programme name (incl. pathways):	BSc Creative Computing BSc Creative Computing with Work Experience
b) Programme code(s)	510123 and 510179 for Work Experience
c) Programme credit value(s)	360 CATS, 480 CATS with Work Experience 180 ECTS, or 240 ECTS with Work Experience
d) Programme author(s)	Alexander Brigden
e) Entry requirements	Successful applicants will be expected to have at least BBB-CCC at A2 level, or equivalent. An A2 level qualification, or equivalent, relating to science, technology and mathematics is preferred. However, we encourage applications from those without a formal qualification in these areas who can demonstrate relevant knowledge, skills, and experience. All applicants may be called for an interview, at which time they may be asked to take a computer aptitude test. Applicants should have a grade B in GCSE Mathematics, or equivalent. Applicants whose first language is not English must have received a score of 6.0 or more in the IELTS (or equivalent) examination for written English.
f) Academic year effective from	2027/28

2. Programme Aims & Overview

Aims

The BSc in Creative Computing aims to prepare students to become specialist technology creatives within the creative industries. Graduates will be both technical experts and creative thinkers and makers. Creative Computing prepares students for a range of technical and creative careers within media, art, software development, games, and related areas. It provides the necessary knowledge, skills, and creative freedom for developing new and critically informed ideas, technology, experiences, and solutions.

Overview

The BSc in Creative Computing is designed to prepare students to become specialist technology creatives within the creative industries. Graduates will be both technical experts and creative thinkers and makers. Creative Computing prepares students for a range of technical and creative careers within media, art, software development, games, and related areas. It provides the necessary knowledge, skills, and creative freedom for developing new and critically informed ideas, technology, experiences, and solutions.

The programme has two core components. The first equips students with the technical skills and theoretical knowledge necessary to design, develop and evaluate creative computing systems, applications and projects. Essential computing skills such as software design and programming are developed to the same level as a computer science bachelors, but are specialised towards audio, visual and physical computing applications. The second core component is the application of technical skills and theoretical knowledge to practical projects – creating software applications, creative tools, websites, and interactive audio, visual and physical computing-based experiences, artworks and games. In this way, students are encouraged to develop practical and theoretical knowledge through experiencing the tools and techniques of creative computing, and to develop their own unique portfolio of technical, creative, and critically informed practice.

The programme has been developed to encompass the unique ethos of the Department of Computing that combines technical rigour with a creative, critical, and socially engaged approach to studying computing. We have a diverse pedagogical approach that includes considerable practice-based project work in addition to technical and theoretical learning. Graduates will not only be technical and creative professionals but also have the expertise and confidence to develop innovative technology that is both socially beneficial and ethically informed.

3. External reference

Item	Information
a) FHEQ Level of Award:	6

Item	Information
b) UCAS Code(s):	G452
c) HECoS Code(s):	(100366) Computer Science (50%) (100361) Creative arts and Design (50%)
d) QAA Benchmark group:	Computing; Art and Design

4. Awards

Item	Information
g) Awarding institution:	Goldsmiths, University of London
h) Teaching institution:	Goldsmiths, University of London
i) Home School:	Computing **If other, name here:**
j) School(s) also involved in teaching of the programme:	None **If other, name here:**
k) Entry awards:	☐ Foundation Cert ☐ CertHE ☐ DipHE ☐ PGCert ☐ PGDip
l) Interim exit awards:	☐ Foundation Cert ☒ CertHE ☒ DipHE ☐ PGCert ☐ PGDip
m) Final awards:	BSc (Hons) Creative Computing BSc (Hons) Creative Computing with Work Experience

5. Delivery

Item	Information	
a) Language of study:	English	
b) Valid intake points in year:	☐ January ☒ Sept/Oct ☐ Other If other, specify:	
c) Mode of study:	On Campus Indicate the overall balance of teaching modes in the rows below. Row d) shows total hours of directed learning, with e) and f) showing how this is broken down in in-person vs. online learning, in hours and percentages.	
d) Total hours directed learning/year	**1200 per year and the whole programme is 3600 or 4800 for work experience**	
e) In-person hours	720	100%
f) Online hours	0	0%
g) Pace of study:	☒Full time ☒ Part time	
h) Duration of programme	Full time: 3 ☒years ☐months Part time: 6 ☒years ☐months	
i) External accreditation:	N/A	
j) Apprenticeship Standard:	N/A	

6. Programme Learning Outcomes

Also, see the curriculum map at the end of document.

For UG exit awards, Learning Outcomes must be achieved in the level indicated below:

- CertHE = Level 4
- DipHE = Level 5

Learning outcomes are grouped in categories of:

- **Declarative learning** - knowledge, thinking & facts (D1-3)
- **Functional learning** - application of knowledge, thinking & facts (F1-3)
- **Professional and transferable skills and behaviours** (P1-3)

On successful completion of the programme, you will be able to:

	Learning Outcome	Level	Graduate Attribute
D1	Explain key concepts and principles of computing, including software development, web technologies, multimedia, networking and databases, in the context of contemporary computing practice.	4	Diversity of perspective
D2	Compare programming languages and programming paradigms in relation to their features, capabilities and appropriate areas of use in software.	5	Responsible agency
D3	Analyse the mathematical and computational principles underlying the representation and manipulation of digital media in the context of creative computing.	6	Diversity of perspective
F1	Apply computational thinking to the design of moderately complex computing solutions in response to defined requirements.	4	Responsible agency
F2	Apply appropriate technologies, methods and tools to the development of software and creative computing solutions in response to user and technical requirements.	5	Collaboration
F3	Create digital media artefacts that integrate computational and aesthetic principles appropriate to a specified creative context.	6	Political in the personal
P1	Reflect critically on their own technical, creative and professional practice to identify opportunities for continuing development.	4	Political in the personal
P2	Collaborate effectively with others to deliver small-scale computing and creative computing projects within an agreed project-based context.	5	Collaboration
P3	Evaluate creative computing solutions against relevant technical, creative and user requirements.	6	Responsible agency

7. Programme Structure

For Undergraduate programmes (UG), each level must amount to at least **120 CATS** (60 ECTS).

Postgraduate (PGT) programmes must amount to at least 180 CATS (90ECTS), with exception to interim exit awards.

Programmes are staged in **Phases**, where each Phase relates to an exit award.

Compulsory modules must be taken by all students.

Option modules – you must choose one or more of the options available to this programme at this level and point. The option modules available from this list may vary from year to year, depending on student numbers and staff availability. Selection takes place during your studies, not before.

Programme structure notes (where relevant):

An undergraduate honours degree is made up of 360 credits – 120 at Level 4, 120 at Level 5 and 120 at Level 6. If you are a full-time student, you will usually take Level 4 modules in the first year, Level 5 in the second, and Level 6 modules in your final year. If you take the year-long work placement option, it will be an additional 120 credits.

A standard module is worth 30 credits. Some programmes also contain 15-credit half modules or can be made up of higher-value parts, such as a dissertation or Major Project.

If you opt for an industrial placement year, your placement tutor will assess your work. If you complete the placement year successfully, you earn the endorsement 'with work experience' on your degree certificate.

Students will decide their options in consultation with the programme leader.

The list of modules offered is updated annually to ensure its relevance and alignment with current industry requirements. Part-time students can consult the programme leader to determine the most suitable approach for selecting the number of modules to take, as well as which modules to study in each year.

Phase 1 (FT)

Module Name	Code	Credit	Level	Type	Term	Year PT
Mathematics for Computing	TBC	15	4	Compulsory	1	Y1
Introduction to Programming	IS51031	15	4	Compulsory	1	Y1
Web Development	IS51018	15	4	Compulsory	1	Y2
Graphics 1	IS51030	15	4	Compulsory	2	Y1
Physical Computing	TBC	15	4	Compulsory	2	Y2
Sound for Creative Practice	IS51029	15	4	Compulsory	1	Y2
2D Game Development	IS51045	15	4	Compulsory	2	Y2
Professional Practice for Computing	TBC	15	4	Compulsory	2	Y1

Phase 2 (FT)

Module Name	Code	Credit	Level	Type	Term	Year PT
Creative Embedded Programming	IS52058	15	5	Compulsory	1	Y3
Full Stack Web Development	TBC	15	5	Compulsory	1	Y3
Game Design [L4 GD - IS51047A]	TBC	15	5	Option - Core	1	Y3
Human Computer Interaction Theory Practice and Application	IS52046	15	5	Option - Core	1	Y3
Data Programming for Artificial Intelligence	IS52061	15	5	Option - Core	1	Y3
Generative Drawing	IS52068	15	5	Option - Core	1	Y3
3D Games Development	TBC	15	5	Option - Core	1	Y4
Creative Game Engine Development	IS52067	15	5	Option - Core	2	Y4
Graphics 2	IS52049	15	5	Option - Core	2	Y3
Digital Signal Processing	IS52051	15	5	Option - Shared	2	Y4
Extended C++	IS52050	15	5	Option - Core	2	Y4
Goldsmiths' Social Change Project	CC52001	15	5	Compulsory	2	Y4
Creative Computing Project 2	IS52030	30	5	Compulsory	1-2	Y4

Phase 3 (FT)

Module Name	Module Code	Credit	Level	Module Type	Term	Year PT
Data and Machine Learning for Creative Practice	IS53055	15	6	Compulsory	1	Y5
Mobile Development	TBC	15	6	Option - Core	1	Y5
Digital Product Innovation and Venture Creation	TBC	15	6	Option - Core	1	Y5
Accredited Work Experience	IS53044	15	6	Option - Shared	1	Y5
Introduction to Modelling and Animation	IS53067	15	6	Option - Shared	1	Y5
Virtual and Augmented Reality	IS53032	15	6	Option - Shared	1	Y5
Generative Artificial Intelligence	TBC	15	6	Option - Core	2	Y5
Deep Learning	TBC	15	6	Option - Core	1	Y5
Social Media, Crowdsourcing and Citizen Sensing	IS53038	15	6	Option - Shared	1	Y6
Advanced Audio-Visual Processing	IS53027	15	6	Option - Shared	2	Y6
Game AI Programming	IS53049	15	6	Option - Core	2	Y6
Ethical Computing for the Social Economy	IS53068	15	6	Option - Core	1	Y6
Expressive Game Design	IS53059	15	6	Option - Core	2	Y6
Final Project in Creative Computing	IS53028	45	6	Compulsory	1-2-3	Y6

8. Learning, Teaching & Assessment

Learning & Teaching methods

Teaching will be via a range of formats to be as relevant as possible to the topic and learning outcomes. This may be through workshops, practical labs, lectures and seminars. It may have a mix of in-person and online activities, designed to give you the best learning experience and to make the most out of your learning experience. You are expected to attend all of your timetabled learning activities.

Specifically, this programme will be taught in the following ways:
On this programme, theoretical concepts are covered in lectures, while practical work is delivered through laboratory sessions. At Level 4 (Year 1), students are introduced to the fundamental concepts of computing,

supported by a higher number of contact hours. At Levels 5 and 6, the emphasis shifts towards applied and independent learning.

Students take a project module in which they work on industry-relevant projects, developing the skills required for employment, such as teamwork and critical thinking.

Independent study is supported by the VLE, library resources, specialist computing facilities, formative tasks, peer learning, tutorials, personal tutoring and project supervision.

Assessment modes and approaches

You will be assessed in a range ways throughout your course. These will be both Formative (for feedback and development), and Summative (required to pass and progress to the next level). Summative assessments are compulsory.

Feedback is a crucial part of your learning and development in this programme. You will receive feedback both on your Formative (work in progress) tasks/assessments, and your Summative (graded) assessments. This feedback will help the assessment to be a part of your learning, not just a test. It may be verbal, written or video based. Please engage with this feedback to improve your future work.

Specifically, this programme will be assessed in the following ways:
Assessment is designed to test academic understanding, technical capability, and professional practice. Methods include portfolio and in person exam.

Assessment becomes progressively more independent. Level 4 provides structured tasks and guided project work; Level 5 requires more substantial application, analysis and collaborative delivery; Level 6 requires integrated professional judgement through the Final Project.

Formative activities include draft work, demonstrations, exercises, peer review, presentations in progress, prototype testing and tutorial discussion. Feedback may be written, verbal, audio-visual or delivered through practical critique and is intended to help students improve subsequent work.

Students are expected to use generative AI tools transparently, critically and responsibly, to verify outputs, protect confidential or personal data and maintain academic integrity.

Exams may take a variety of forms, including project-based assessments and in-class examinations, depending on the learning outcomes of the module.

The assessment diet below is the proposed programme-level balance for compulsory learning. It will be checked alongside module specifications and deadline mapping before final delivery in 2027/28 to ensure variety, manageable timing, an appropriate balance of individual and group work and opportunities to act on feedback.

Assessment diet (number of assessments for compulsory modules)

Mode	Level 3	Level 4	Level 5	Level 6	Level 7	Total
Coursework	0	0	0	0	0	0

Mode	Level 3	Level 4	Level 5	Level 6	Level 7	Total
Exam	0	0	0	0	0	0
Live	0	0	0	0	0	0
Portfolio (multi-modal)	0	8	4	2	0	14
Practical / multimedia	0	0	0	0	0	0
Written	0	0	0	0	0	0
TOTAL:	**0**	**8**	**4**	**2**	**0**	**14**
Of which...	**Individual:**	**14**	**Group:**	**0**		

9. Other information

Item	Information
a) Assessment regulations	https://www.gold.ac.uk/gam/taught-programmes/assessment/
b) Placement opportunities	Students registered on the work-experience pathway complete the 120-credit Work Placement between Level 5 and the final academic stage. The placement may be undertaken in the UK or abroad, subject to approval and the relevant placement requirements.
c) Programme-specific requirements	There are no additional programme-specific academic requirements beyond those stated in the programme and module specifications. Students are expected to attend and engage with scheduled lectures, seminars, laboratories, workshops, tutorials, project supervision and group activity. Students undertaking the work-experience pathway must satisfy placement approval, professional conduct, health and safety, right-to-work or visa, and any employer-specific requirements.
d) Programme specific costs and resources	No compulsory programme-specific charges are currently anticipated beyond normal study costs. Students require regular access to a computer and reliable internet connection for independent study. Goldsmiths provides access to computing laboratories, specialist software, library resources and the institutional VLE. Optional activities, personal equipment upgrades, travel and costs associated with placements may create additional expenditure. Current information should be confirmed through the programme handbook and Goldsmiths fees and funding guidance.
e) Employability and potential career opportunities	The programme is designed to produce graduates who are work-ready and equipped to progress within a rapidly evolving digital sector. Employability is embedded throughout the curriculum rather than treated as a separate strand: technical modules are aligned with current industry practice, tools and standards, and assessment frequently takes

Item	Information
	the form of authentic tasks that mirror professional activity, such as software development projects, technical reports, presentations and portfolio work. At every level, students undertake a project module in which they work on industry-relevant briefs, individually and in teams. These develop not only technical competence but also the professional skills employers consistently identify as essential, including teamwork, communication, project management, problem-solving, critical thinking and the ability to work to a client specification and deadline. The final-year project allows students to demonstrate independent research, technical depth and professional judgement, and provides substantial evidence of capability for prospective employers. Students are further supported through engagement with employers and the wider profession. This may include guest lectures from industry practitioners, employer-set project briefs, industrial advisory input into curriculum design, participation in hackathons and competitions, and the opportunity to gain recognised vendor and professional certifications alongside the degree. Students are encouraged to undertake a placement year or summer internship, and are supported in doing so by the University's Careers and Employability Service, which provides guidance on CV preparation, applications, interviews and assessment centres. Personal tutors and project supervisors also support students in reflecting on their skills development and articulating it to employers.

10. Academic support

There is a range of support available to you to give you the best possible chance of success in this programme.

Please see your tutors and student portal/VLE for details of what's available and how to access this support.

11. Curriculum map

Programme Learning Outcomes assessed by each module:

Module name	Code	Type	D1	D2	D3	F1	F2	F3	P1	P2	P3
Mathematics for Computing	TBC	Compulsory	☒	☐	☒	☒	☐	☐	☐	☐	☐
Introduction to Programming	IS51031	Compulsory	☒	☐	☐	☒	☐	☐	☐	☒	☐
Web Development	IS51018	Compulsory	☒	☐	☐	☒	☐	☐	☒	☐	☐
Graphics 1	IS51030	Compulsory	☒	☐	☐	☒	☐	☐	☒	☐	☐
Physical Computing	TBC	Compulsory	☒	☐	☐	☒	☐	☐	☒	☐	☐
Sound for Creative Practice	IS51029	Compulsory	☒	☐	☐	☒	☐	☐	☒	☐	☐
2D Game Development	IS51045	Compulsory	☐	☐	☐	☒	☐	☐	☒	☐	☐
Professional Practice for Computing	TBC	Compulsory	☐	☐	☐	☐	☐	☐	☒	☐	☒
Creative Embedded Programming	IS52058	Compulsory	☒	☒	☐	☐	☒	☐	☒	☐	☐
Full Stack Development	TBC	Compulsory	☒	☒	☐	☐	☒	☐	☐	☒	☐
Game Design [L4 GD - IS51047A]	TBC	Option - Core	☒	☐	☐	☐	☒	☐	☒	☐	☐
Human Computer Interaction Theory Practice and Application	IS52046	Option - Shared	☐	☒	☐	☐	☒	☐	☐	☒	☐
		Choose an item.	☐	☐	☐	☐	☐	☐	☐	☐	☐
Data Programming for Artificial Intelligence	IS52061	Option - Core	☐	☐	☒	☐	☒	☐	☒	☐	☐
Generative Drawing	IS52068	Option - Core	☐	☐	☒	☒	☒	☐	☒	☐	☐
Creative Game Engine Development	IS52067	Option - Core	☐	☒	☐	☒	☒	☐	☒	☐	☐
Graphics 2	IS52049	Option - Core	☒	☐	☐	☒	☒	☐	☒	☐	☐
Sound and Signal	IS52041	Option - Shared	☒	☐	☐	☐	☒	☐	☐	☐	☐
3D Games Development	TBC	Option - Core	☐	☒	☐	☒	☒	☐	☐	☒	☐
Extended C++	IS52050	Option - Core	☒	☐	☐	☒	☒	☐	☐	☐	☐

Module name	Code	Type	D1	D2	D3	F1	F2	F3	P1	P2	P3
Audio for Games and Immersive Experience	TBC	Option - Core	☐	☒	☐	☐	☒	☐	☐	☒	☐
Creative Computing Project 2	IS52030	Compulsory	☐	☒	☐	☒	☒	☐	☐	☒	☒
Goldsmiths' Social Change Project	CC52001	Compulsory	☐	☐	☐	☐	☐	☐	☐	☐	☐
Data and Machine Learning for Creative Practice	IS53055	Compulsory	☐	☐	☒	☒	☐	☒	☐	☐	☒
Mobile Development	TBC	Option - Core	☐	☐	☒	☐	☐	☒	☐	☐	☒
Digital Product Innovation and Venture Creation	TBC	Option - Core	☐	☐	☐	☐	☐	☐	☐	☐	☒
Accredited Work Experience	IS53044	Elective	☐	☐	☐	☐	☐	☐	☐	☐	☐
Introduction to Modelling and Animation	IS53067	Option - Shared	☐	☐	☒	☐	☒	☒	☒	☐	☐
Virtual and Augmented Reality	IS53032	Option - Sharred	☐	☐	☐	☐	☒	☒	☒	☐	☐
Generative Artificial Intelligence	TBC	Option - Core	☐	☐	☒	☐	☐	☒	☐	☐	☒
Deep Learning	TBC	Option - Core	☐	☐	☒	☐	☐	☒	☐	☐	☒
Social Media, Crowdsourcing and Citizen Sensing	IS53038	Option - Shared	☐	☐	☐	☐	☐	☐	☐	☐	☒
Advanced Audio-Visual Processing	IS53027	Option - Shared	☐	☒	☒	☐	☒	☒	☐	☐	☒
Game AI Programming	IS53049	Option - Core	☐	☐	☒	☐	☒	☐	☐	☐	☒
Ethical Computing for the Social Economy	IS53068	Option - Core	☐	☐	☐	☐	☐	☐	☐	☐	☒
Expressive Game Design	IS53059	Option - Core	☐	☐	☐	☐	☒	☒	☐	☐	☒
Final Project in Creative Computing	IS53028	Compulsory	☐	☒	☒	☒	☒	☒	☒	☐	☒