

# BSc (Hons) Creative Computing; BSc (Hons) Creative Computing with Work Experience; MSci Creative Computing Programme Specification

**Awarding Institution:**

University of London (Interim Exit Awards made by Goldsmiths' College)

**Teaching Institution:** Goldsmiths, University of London**Name of Final Award and Programme Title:**

BSc (Hons) Creative Computing

BSc (Hons) Creative Computing with Work Experience

MSci Creative Computing

**Name of Interim Exit Award(s):**

Certificate of Higher Education in Creative Computing

Diploma of Higher Education in Creative Computing

**Duration of Programme:**

3 years full-time (BSc Creative Computing)

4 years full-time (BSc Creative Computing with Work Experience)

4 years full-time (MSci Creative Computing)

**UCAS Code(s):** G452**HECoS Code(s):** (100737) Multimedia Science Computing**QAA Benchmark Group:** Computing; Art and Design**FHEQ Level of Award:** Level 6 (Level 7 MSci)**Programme accredited by:** Not applicable**Date Programme Specification last updated/approved:** December 2019**Home Department:** Computing**Department(s) which will also be involved in teaching part of the programme:**

Not applicable

## Programme overview

This programme is designed to prepare you for a career as a technology led creative in the media industries. The degree will nurture your development not just as a technical expert, but also as a creative thinker, allowing you to learn and explore through a combination of technology and imagination. Creative Computing prepares you for a career in computation for media, games and related areas by giving you both the technical understanding and the creative freedom to develop your ideas.

The programme has two core components. The first equips you with a range of key technical skills in programming for audio and visual media. These skills are delivered at the same level as traditional courses in computing, but from a specifically audiovisual perspective, giving you the tools you need to develop your ideas. The second core component gives you the freedom to use these skills in your own practical projects, creating games, applications, websites and interactive artworks that showcase your skills in creative technologies. In this way, you are encouraged to learn through experiencing the techniques of creative computation, whilst simultaneously developing your portfolio in technical arts practice.

## **Programme entry requirements**

You will be expected to have at least BBB 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 ideally 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.

You cannot apply directly for admission to the MSci. Admission to the MSci year is only offered by progression from Level 6 of the BSc and is dependent on results at Levels 5 and 6 of the programme.

## **Aims of the programme**

The aim of this programme is to produce graduates who are independent, creative and reflective computing practitioners. Our graduates should have:

- Knowledge of computing technologies across a range of core and specialist topics.
- Understanding of the contexts in which computing technologies subsist in industry, with an emphasis on the creative industries.
- The ability to design and implement software systems.
- The ability to work independently and in groups and reflectively evaluate their own work.

The term computing applies to an increasingly diverse set of degree courses all based on the foundations of computer science. It is widely taught in joint and interdisciplinary courses. The content of this degree as set out in this specification approximate to a synthesis of elements from “Software Engineering” and “Information technology” as defined in the QAA Computing benchmark statement as well as elements from the Art and Design benchmark statement.

## What you will be expected to achieve

Students who successfully complete the **Certificate of Higher Education** in Creative Computing will be able to:

### Knowledge and understanding

| Code | Learning outcome                                                           | Taught by the following module(s)                                                                                                                          |
|------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A1   | Basic knowledge of a programming language and its features                 | This will primarily be taught in the 1st year programming modules via lectures and programming exercises. It will be assessed via an examination.          |
| A2   | Knowledge of contemporary practice in at least one sub domain of computing | This will be taught in Designing Digital Interactions and specialist modules for individual programmes.                                                    |
| A3   | The mathematical and computational principles underlying computing         | This will be taught in the Numerical Math module. Teaching will be via lectures and practical work. Assessment will be via practical coursework and exams. |

### Cognitive and thinking skills

| Code | Learning outcome              | Taught by the following module(s)                                                                                                                                                                                                                                 |
|------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B1   | Computational Problem solving | This will primarily be taught in the first year programming modules. Teaching will be via problem solving and programming exercises and assessment will be via practical programming coursework and examination. This skill will be applied across the programme. |

| Code | Learning outcome                                                                                                                                                                                                     | Taught by the following module(s)                                                                                                                              |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B2   | Analyse, to a basic level, the requirements of computing software from a number of perspectives (technical, creative, user-centred, social and business) and design a basic software solution based on this analysis | This will be taught in the first year specialist modules. This will be taught presenting examples and students undertaking practical work to a specific brief. |

## Subject specific skills and professional behaviours and attitudes

| Code | Learning outcome                                                                | Taught by the following module(s)                                                                                                                             |
|------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C1   | Program basic computer software                                                 | This will be taught in the first year programming module and applied across the curriculum. This will be taught primarily through practical programming work. |
| C2   | Develop complete, though limited computing projects, individually and in groups | This will be taught by students doing practical work with guidance from staff in the practical modules in the first year.                                     |

## Transferable skills

| Code | Learning outcome                                                                                        | Taught by the following module(s)                                                                 |
|------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| D1   | Have core numeracy, literacy and IT skills to a graduate level.                                         | Numeracy and IT skills are core to a computing degree and will feature throughout the curriculum. |
| D2   | Be able to effectively present themselves and their work orally and in writing to a professional level. | Assessment throughout the programme will include considerable written and oral presentation.      |

Students who successfully complete the **Diploma of Higher Education** in Creative Computing will be able to:

## Knowledge and understanding

| Code | Learning outcome                                                                                                                                 | Taught by the following module(s)                                                                                                                                               |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A1   | Knowledge of a range of topics in computing including web technologies, multimedia, networking, data bases and a number of more advanced topics. | A range of specialist modules including: <ul style="list-style-type: none"> <li>• Designing Digital Interactions</li> <li>• Data</li> <li>• Dynamic Web Applications</li> </ul> |

| Code | Learning outcome                                                                                                                                       | Taught by the following module(s)                                                                                                                                                                                                                                                                                            |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | Knowledge of most will be sufficient to apply to moderately complex application; some will be studied in greater depth.                                | Teaching will be via lectures and practical lab work. Assessment will be via examinations and practical coursework                                                                                                                                                                                                           |
| A2   | Programming languages, their features and the differences between languages. Knowledge will be sufficient for professional level software development. | This will primarily be taught in the 1st and 2nd year programming courses. Other courses will teach alternative languages and compare them to our core languages. Teaching will be via lectures and practical programming work. Assessment will be via examinations and written reports on practical programming coursework. |

## Cognitive and thinking skills

| Code | Learning outcome                                                                                                                                     | Taught by the following module(s)                                                                                                                                                                                                                                                     |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B1   | Apply computational thinking to the design and implementation of moderately complex computing systems                                                | This will primarily be taught in the 1st and 2nd year programming modules. This skill will be applied across the programme.                                                                                                                                                           |
| B2   | Analyse and evaluate moderately complex computing systems and technologies with reference to efficiency, correctness and suitability to users' needs | This will be taught across the curriculum, but primarily in the programming courses. Students will learn these skills primarily through guided practical work in lab settings and independent project work. They will be assessed via practical programming course work and projects. |

## Subject specific skills and professional behaviours and attitudes

| Code | Learning outcome                                                                                                                                                                                       | Taught by the following module(s)                                                                                                                                                                                                                                        |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C1   | Apply a small number of specific technologies, methods and tools to the analysis, design and implementation of software. Some technologies will be known to a basic level and others in greater depth. | A range of specialist courses including: <ul style="list-style-type: none"> <li>• Designing Digital Interactions</li> <li>• Dynamic Web Applications</li> <li>• Creative Computing Projects</li> </ul> Students will do practical lab work and coursework applying these |

| Code | Learning outcome | Taught by the following module(s)                                                     |
|------|------------------|---------------------------------------------------------------------------------------|
|      |                  | technologies in a number of contexts. They will be assessed via practical coursework. |

## Transferable skills

| Code | Learning outcome                                         | Taught by the following module(s)                                   |
|------|----------------------------------------------------------|---------------------------------------------------------------------|
| D1   | Be able to reflect on and evaluate their work            | Creative Computing Projects and other second year modules.          |
| D2   | Work in teams to plan and execute a large scale project. | Creative Computing Projects and other modules requiring group work. |

Students who successfully complete the **BSc (Hons) Creative Computing** or the **MSci Creative Computing** will be able to:

## Knowledge and understanding

| Code | Learning outcome                                                                                                                                                                                                                                                | Taught by the following module(s)                                                                                                                                                                                                                 |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A1   | A broad range of topics in computing including web technologies, multimedia, networking, databases and a number of more advanced topics. Knowledge of most will be sufficient to apply to moderately complex application, some will be studied in greater depth | A range of specialist modules including: <ul style="list-style-type: none"> <li>• Introduction to Digital Media</li> <li>• Graphics 2 and Sound &amp; Signal 2 options</li> <li>• Dynamic Web Applications</li> <li>• 3rd year options</li> </ul> |
| A2   | Programming languages, their features and the differences between languages. Knowledge will be sufficient for professional level software development                                                                                                           | This will primarily be taught in the 1st and 2nd year programming modules. Other modules will teach alternative languages and compare them to our core languages.                                                                                 |
| A3   | Uses of digital media in the creative industries and of the aesthetic principles used by digital content creators, sufficient to create professional level work                                                                                                 | This will be taught in the first and second year Creative Computing Project modules.                                                                                                                                                              |
| A4   | The mathematical and computational principles underlying the representation and manipulation of digital media.                                                                                                                                                  | This will be taught in the Graphics 2 and Sound & Signal 2 options, Perception and Multimedia Computing module, Advanced Audio-Visual Processing module and in other 3rd year options.                                                            |

| Code | Learning outcome                                                                                            | Taught by the following module(s)         |
|------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| A5   | Analyse advanced computer science arguments and synthesise them into coherent discussion <b>(MSci only)</b> | Taught by Advanced Topics in Computing 2. |

## Cognitive and thinking skills

| Code | Learning outcome                                                                                                                                     | Taught by the following module(s)                                                                                                                                                                      |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B1   | Apply computational thinking to the design and implementation of moderately complex computing systems                                                | This will primarily be taught in the 1st and 2nd year programming modules. This skill will be applied across the programme but particularly in Creative Computing Projects and the final year project. |
| B2   | Analyse and evaluate moderately complex computing systems and technologies with reference to efficiency, correctness and suitability to users' needs | This will be taught across the curriculum, but primarily in the programming modules, Creative Computing Projects and the final year project.                                                           |
| B3   | Propose, plan and evaluate a significant piece of project work, under supervision of an expert.                                                      | Final year project module.                                                                                                                                                                             |
| B4   | Computational Problem solving                                                                                                                        | This will primarily be taught in the 1st and 2nd year programming modules. This skill will be applied across the programme but particularly in Creative Computing Projects and the final year project. |
| B5   | Critical awareness and analysis of creative work, to the standards of academic study.                                                                | This will be taught in the first and second year Creative Computing Projects modules.                                                                                                                  |
| B6   | Implement programs based on advanced algorithms found in research papers <b>(MSci only)</b>                                                          | Taught in Advanced Topics in Computing 2.                                                                                                                                                              |

## Subject specific skills and professional behaviours and attitudes

| Code | Learning outcome                                                                                     | Taught by the following module(s)                                               |
|------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| C1   | Specify, design and implement complete computer software systems with reference to user requirements | This will be taught in the creative projects modules and the final year project |

| Code | Learning outcome                                                                                                                                                                     | Taught by the following module(s)                                                                                                                                                                                                                                                                             |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C2   | Program computer software to a professional level.                                                                                                                                   | This will be taught in the 1st and 2nd year programming modules and applied across the curriculum and in particular in the final year project                                                                                                                                                                 |
| C3   | Apply specific technologies, methods and tools to the analysis, design and implementation of software. Some technologies will be known to a basic level and others in greater depth. | A range of specialist modules including: <ul style="list-style-type: none"> <li>• Perception &amp; Multimedia Computing</li> <li>• Graphics 2 and Sound and Signal 2 options</li> <li>• Dynamic Web Applications</li> <li>• Advanced Audio-Visual Processing and other</li> <li>• 3rd year options</li> </ul> |
| C4   | Acquire and manipulate digital media to a professional level.                                                                                                                        | This will be taught in the first year modules Creative Computing and Audio-Visual Computing, the second year Perception and Multimedia Computing and Creative Computing Projects modules and 3rd year option modules.                                                                                         |
| C5   | Execute a significant piece of creative work, under supervision of an expert.                                                                                                        | Final year project module.                                                                                                                                                                                                                                                                                    |
| C6   | Read and understand research papers and be able to write discussions about them <b>(MSci only)</b>                                                                                   | Taught by Advanced Topics in Computing 2, Part 4 Computing project and other level 7 options.                                                                                                                                                                                                                 |

## Transferable skills

| Code | Learning outcome                                               | Taught by the following module(s)                                                                                                                                                                                                                                     |
|------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D1   | Have core numeracy, literacy and IT skills to a graduate level | Numeracy and IT skills are core to a computing degree and will feature throughout the curriculum. Students will be required to document, describe and evaluate their work both in traditional reports and on web pages, culminating in their final year dissertation. |
| D2   | Be able to reflect on and evaluate their work                  | Students will be required to maintain a web page on which they will engage in reflective discussion of                                                                                                                                                                |



| Code | Learning outcome                                                                            | Taught by the following module(s)                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |                                                                                             | their work. The creative projects modules and final year project will have specific learning outcomes on reflection and self-evaluation                                                                                                                                                                                                                                                                                                |
| D3   | Be independent and creative workers and learners                                            | Our degree programme have a particular focus, unusual in Computing courses, on independent and creative work, starting with 1st year programming and continuing in Creative Computing Practice and culminating in the final year project. Students will be expected to tackle complete, independent projects of their own devising from the very beginning and will be expected to independently research and learn specialist topics. |
| D4   | Be able to work effectively in groups                                                       | Many modules will include group work but the largest scale will be the group project featured in the 2nd year Creative projects modules.                                                                                                                                                                                                                                                                                               |
| D5   | Be able to present themselves and their work orally and in writing to a professional level. | Taught throughout the programme                                                                                                                                                                                                                                                                                                                                                                                                        |
| D6   | Construct synoptic arguments about advanced concepts ( <b>MSci only</b> )                   | This is taught throughout the MSci modules but especially in Advanced Topics in Computing 2.                                                                                                                                                                                                                                                                                                                                           |

The above learning outcomes are in concurrence with typical learning outcomes for Computing degrees as identified by the QAA subject benchmark.

## How you will learn

The Department of Computing is committed to a diverse and stimulating range of learning and teaching methods that ensure the programme outcomes are addressed rigorously and effectively. Learning emphasises a close synthesis between theoretical understanding and practical application that helps you develop an advanced, critical approach to the subject of computing. In addition, the College's Gold Award scheme and personal tutoring system are opportunities to develop coherent links between seemingly disparate elements in the programme.

The various modules of the programme provide a diverse range of topics across the scope of computing but are designed to form a coherent and cumulative body of knowledge and skills. These are further developed through your independent research and learning activities directed towards course assignments and the large-scale project component. The department is committed to providing a diverse and innovative range of teaching styles across its degree programmes. These include traditional lecture and laboratory sessions but also a range of more interactive and self-directed activities focusing on independent, creative work and self-presentation. The nature of the learning activities will vary greatly between different modules, but includes programming, building hardware devices, software design, project planning, group activity and creative work. In addition students will be expected to engage in considerable independent reading and practical work for all modules culminating in the final year project. This independent work will be supported by library resources, access to lab space and supervision from teaching staff.

The programme provides a range of modules which provide a network of cross-referenced and cumulative knowledge across diverse areas of computing. You achieve the outcomes relevant to your individual pathway, that combines compulsory and optional modules, through the experience of interconnected teaching and learning strategies across the various elements of the programme. All modules provide a weekly lecture-lab or other session, which reinforces preparatory or follow-up reading, and other related learning activities in both group and individual settings to foster new understandings and skills.

## **How you will be assessed**

The department recognises that high quality assessment is a vital part of learning, particular when used formatively, providing valuable feedback for future learning. Our assessment is designed to reflect “real world” skills and activity in order to give our students a strong preparation for the work place. No single method of assessment can capture all aspects of computing or the full range of skills required by our graduates. For this reason we are committed to providing many diverse styles of assessment and to the development and use of novel forms of assessment. Our methods of assessment are designed to reflect business relevant activities and to encourage independent, creative work. As well as traditional examinations, our assessment includes many different types of “hands on” practical work including software development, planning and group work, and presentations. Students will be required to present their work in a number of different ways that reflect the contemporary work place, including traditional reports but also oral presentations and extensive use of the web for self-presentation. Above all we encourage our students to be independent and creative thinkers and include considerable opportunities for open ended assessments that allow students to develop their own ideas. Feedback is vital to effective continuing learning, the true value of assessment is that it shows students how to improve their work and learn more effectively in future. For this reason we are committed to providing timely and full feedback on all assessed assignments.

Throughout the degree programme, assessment will happen in individual modules, each having assignments, each including some of the many diverse styles of assessment listed above, as well as end of year exams for some modules. As well as these small assignments, students will have a major project in their final year. This is a large scale piece of work which should integrate what students have learned throughout the programme. It provides students with an opportunity to independently tackle a large project that reflects real world software development. There are many different types of project, but all including the implementation of a substantial software system and a written report.

Assessments are expected to make up roughly half of the workload of a taught module. A 15 credit course corresponds to 150 hours of work. Roughly 80 hours of this should be taken up with assessed coursework and examinations (including revision). The remainder is made up of 40 hours of contact time and a further 30 hours of private study.

Below is a list of the major types of assessment used in the department. Individual courses may vary slightly.

#### Practical Module work

Most of our modules will include an element of practical coursework that includes programming or otherwise creating a software system based on the material presented in the course. You will work independently, with an opportunity to ask for help in lab sessions. You will submit the finished software together with a written report or other type of documentation (oral presentation, web site, in code comments etc.). The assessment of coursework may also involve an oral examination, typically of a random selection of student or where there is suspicion of plagiarism. A 15 credit module will typically have 1 coursework and a 30 credit module will have 2.

There are five main types of coursework that we set, though individual courses may differ slightly.

**Practical Coursework** (worth up to 40% of a 15 credit module). This will involve answering a number of specific questions that involve either creating software or hardware from scratch or editing existing software. It will typically include a report of 1-2000 words or equivalent documentation and require about 30 hours of work.

**Extended Practical Coursework** (worth between 40% and 80% of a 15 credit course). This will involve answering a number of specific questions that involve either creating software or hardware from scratch or editing existing software. The work involved will be more substantial than a normal coursework and will also include scope for extending that software in ways that you choose. It will typically include a report of about 3000 words or equivalent documentation and require about 50 hours of work.

Mini-project (worth between 80% and 100% of a 15 credit course). This will involve creating a substantial software system either partially or completely of your own design. It may also involve some formative working similar to a practical coursework. It will typically include a report of about 6000 words or equivalent documentation and require about 80 hours of work.

Group project (worth between 80% and 100% of a 15 credit module). This will involve creating a substantial software system in a collaboration with a group of other students. The group will submit the completed software, and each individual will write a report of about 5000 words discussing their own contribution to the software and the working of the group. Your mark will be based on the success of the project as a whole and also your contribution to it. It will typically require about 80 hours of work.

Examined Coursework (worth 100% of a 15 credit module). Some of our modules will involve a number of practical courseworks or extended practical courseworks that are either partially or completely assessed by a written examination. This examination will consist of questions relating specifically to the coursework.

#### Written Coursework

Coursework may also take the form of a written essay. This will involve applying the ideas presented in the course and doing independent research or problem solving. There are four types of written coursework that we may set.

Written Problem Sheet (worth up to 40% of a 15 credit course). This will involve written answer to a set of clearly defined mathematical or technical questions. They will typically require about 30 hours of work.

Essay (worth up to 40% of a 15 credit module). This will involve writing in answer to a question about a clearly defined topic. It will typically be about 3000 words and require about 30 hours of work.

Extended Essay (worth between 40% and 80% of a 15 credit module). This will involve writing in answer to a question about a clearly defined topic, but with more scope for independent research and choice of topic. It will typically be about 6000 words and require about 50 hours of work.

Mini-dissertation (worth between 80% and 100% of a 15 credit module). This will involve extensive independent research on a topic that is at least partially defined by you, within the scope of the module. It will typically be about 10000 words and require about 80 hours of work.

## Examinations

The purpose of examinations is to test your understanding and work under timed, controlled conditions. Examinations will consist of a number of questions that you will have to answer in a limited time. They will be held in an examination hall in silence. A typical exam for a 15 credit (1 term) module will be 1 hour 30 minutes long and consist of 3 questions with no choice, for a 30 credit (2 term) module it will be 3 hours and consist of 6 questions with no choice. Individual courses may have different examination arrangements. Typically you will not be allowed, notes, books or any internet access, though individual exams may allow access to certain books or web sites.

There are four major types of examination used in the department:

**Written Examinations.** These examinations consist of a number of questions to be answered in writing. Typically this will be hand written on exam scripts provided.

**Practical Examinations.** These examinations will consist of a number of practical questions whose answers require programming or otherwise creative software systems. These examinations will be held in a computer laboratory with no internet access.

**Mixed Written/Practical Examinations.** These examinations will consist of both written and practical questions. These examinations will be held in a computer laboratory with no internet access.

**Coursework Examinations.** These are written examinations where the questions are specifically about practical coursework that you will have done during the module (see above).

These methods of assessments are in concurrence with the QAA subject benchmark statement.

## Marking criteria

| Mark    | Descriptor               | Specific Marking Criteria                                                                                                                                                                                                                                                                                     |
|---------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 80-100% | 1st: First (Exceptional) | Represents an exceptional achievement beyond the standard requirements of a first class degree. Students' work should demonstrate considerable creative thought and be based on a critical evaluation of prior work. Work is likely to achieve some outcomes that would be expected at a higher level degree. |
| 70-79%  | 1st: First (Excellent)   | Demonstration of a thorough grasp of relevant concepts, methodology and content appropriate to the subject discipline; indication of originality in application of ideas, in                                                                                                                                  |

| Mark   | Descriptor                    | Specific Marking Criteria                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                               | synthesis of material or in implementation; insight reflects depth and confidence of understanding of the material. Students should be able to design and create computer systems that demonstrate considerable independent thought and are based on independent learning of prior work and existing technologies. Students should be able to critically evaluate their own work.                                              |
| 60-69% | 2.1: Upper Second (Very good) | Demonstration of a sound level of understanding based on a competent grasp of relevant concepts, methodology and content; display of skill in interpreting complex material; organisation of material at a high level of competence. Students should be able to demonstrate the ability to independently design, implement and evaluate a high quality and complex computer systems using knowledge from across the programme. |
| 50-59% | 2.2: Lower Second (Good)      | Demonstration of an adequate level of understanding of relevant concepts, methodology and content; display of sufficient skill to tackle some complex problems; appropriate organisation of material. Students should demonstrate the ability to create complex computer software, making use of prior knowledge and material taught within the programme.                                                                     |
| 40-49% | 3rd: Third (Pass)             | Represents the overall achievement of the appropriate learning outcomes to a threshold level (honours). Demonstration of a limited level of understanding of relevant concepts, methodology and content; clear if limited attempt to tackle problems; display of some skill in organisation of material. Students should demonstrate creation of a basic, complete and working computing system/ programme.                    |
| 25-39% | Fail                          | Represents an overall failure to achieve the appropriate learning outcomes.                                                                                                                                                                                                                                                                                                                                                    |
| 10-24% | Bad fail                      | Represents a significant overall failure to achieve the appropriate learning outcomes (shall be deemed a valid attempt and not necessarily required to be re-taken).                                                                                                                                                                                                                                                           |
| 1-9%   | Very bad fail                 | A submission that does not even attempt to address the specified learning outcomes (shall be deemed a non-valid attempt and unit must be re-taken).                                                                                                                                                                                                                                                                            |
| 0%     | Non submission or plagiarised | Work was not submitted or it was plagiarised.                                                                                                                                                                                                                                                                                                                                                                                  |

## How the programme is structured

An undergraduate honours degree is made up of 360 credits – 120 at Level 4, 120 at Level 5 and 120 at Level 6. As 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. A standard module is worth 30 credits. Some programmes also contain 15-credit modules or can be made up of higher-value parts, such as a dissertation.

The MSci year is made up of a further 120 credits at Level 7.

### Academic year of study 1

| Module Title                   | Module Code | Credits | Level | Module Status                  | Term |
|--------------------------------|-------------|---------|-------|--------------------------------|------|
| Introduction to Programming    | IS51031A    | 15      | 4     | Compulsory (Non-compensatable) | 1    |
| Front End Web                  | IS51018B    | 15      | 4     | Compulsory                     | 1    |
| Creative Computing Project 1   | IS51013D    | 15      | 4     | Compulsory                     | 2    |
| Designing Digital Interactions | IS51019B    | 15      | 4     | Compulsory                     | 1    |
| Numerical Mathematics          | IS51026B    | 15      | 4     | Compulsory                     | 1    |
| Graphics 1                     | IS51030A    | 15      | 4     | Compulsory                     | 2    |
| Sound and Signal 1             | IS51029A    | 15      | 4     | Compulsory                     | 2    |
| Generative Drawing             | IS51028A    | 15      | 4     | Compulsory                     | 2    |

### Academic year of study 2

| Module Title                        | Module Code | Credits | Level | Module Status | Term |
|-------------------------------------|-------------|---------|-------|---------------|------|
| C++ for Creative Practice           | IS52XXXX    | 15      | 5     | Compulsory    | 1    |
| Creative Computing Project 2        | IS52030A    | 30      | 5     | Compulsory    | 1,2  |
| Perception and Multimedia Computing | IS52XXXX    | 15      | 5     | Compulsory    | 1    |
| Dynamic Web Applications            | IS52XXXX    | 15      | 5     | Compulsory    | 1    |
| Physical Computing                  | IS53030B    | 15      | 5/6   | Optional      | 2    |
| Graphics 2                          | IS52XXXX    | 15      | 5     | Optional      | 2    |
| Extended C++                        | IS5XXXXX    | 15      | 5     | Optional      | 2    |
| Sound and Signal 2                  | IS5XXXXX    | 15      | 5     | Optional      | 2    |

## Academic year of study 3 for BSc Creative Computing with Work Experience

| Module Title   | Module Code | Credits | Level | Module Status | Term |
|----------------|-------------|---------|-------|---------------|------|
| Work Placement | IS53031A    | 0       | 6     | Compulsory    | 1-3  |

## Academic year of study 3 for BSc Creative Computing (and 4 for BSc Creative Computing with Work Experience)

| Module Title                                     | Module Code | Credits | Level | Module Status                  | Term   |
|--------------------------------------------------|-------------|---------|-------|--------------------------------|--------|
| Final Project in Creative Computing (BSc only)   | IS53028A    | 60      | 6     | Compulsory (Non-compensatable) | 2,3    |
| Advanced Audio-Visual Processing                 | IS53027C    | 15      | 6     | Compulsory                     | 1,2    |
| Optional modules from an annually approved list. | Various     | 45      | 6     | Optional                       | 1 or 2 |
| Advanced Topics in Computing 1 (MSci only)       | IS53035A    | 60      | 6     | Compulsory                     | 1 or 2 |

## Academic year of study 4 for MSci Creative Computing

| Module Title                                                                                                                                | Module Code | Credits | Level | Module Status                  | Term  |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------|-------|--------------------------------|-------|
| Advanced Topics in Computing 2                                                                                                              | IS57011B    | 30      | 7     | Compulsory (Non-compensatable) | 1,2   |
| Part 4 Computing Project                                                                                                                    | IS57010B    | 60      | 7     | Compulsory (Non-compensatable) | 1,2,3 |
| Module(s) from a list of Masters level modules. Students may not choose Level 7 options whose Honours Level version they have already taken | Various     | 30      | 7     | Optional                       |       |

## Academic support

Support for learning and wellbeing is provided in a number of ways by departments and College support services who work collaboratively to ensure students get the right help to reach their best potential both academically and personally.

All students are allocated a Personal Tutor (one in each department for joint programmes) who has overall responsibility for their individual progress and welfare. Personal Tutors



meet with their student at least twice a year either face-to-face, as part of a group and/or electronically. The first meeting normally takes place within the first few weeks of the autumn term. Personal Tutors are also available to students throughout the year of study. These meetings aim to discuss progress on modules, discussion of the academic discipline and reports from previous years if available (for continuing students). This provides an opportunity for progress, attendance and assessment marks to be reviewed and an informed discussion to take place about how to strengthen individual learning and success.

All students are also allocated a Senior Tutor to enable them to speak to an experienced academic member of staff about any issues which are negatively impacting their academic study and which are beyond the normal scope of issues handled by Programme Convenors and Personal Tutors.

Students are provided with information about learning resources, the [Library](#) and information available on [Learn.gold \(VLE\)](#) so that they have access to department/programme handbooks, programme information and support related information and guidance.

Taught sessions and lectures provide overviews of themes, which students are encouraged to complement with intensive reading for presentation and discussion with peers at seminars. Assessments build on lectures and seminars so students are expected to attend all taught sessions to build knowledge and their own understanding of their chosen discipline.

All assessed work is accompanied by some form of feedback to ensure that students' work is on the right track. It may come in a variety of forms ranging from written comments on a marked essay to oral and written feedback on developing projects and practice as they attend workshops.

Students may be referred to specialist student services by department staff or they may access support services independently. Information about support services is provided on the [Goldsmiths website](#) and for new students through new starter information and induction/Welcome Week. Any support recommendations that are made are agreed with the student and communicated to the department so that adjustments to learning and teaching are able to be implemented at a department level and students can be reassured that arrangements are in place. Opportunities are provided for students to review their support arrangements should their circumstances change. The [Disability](#) and [Wellbeing](#) Services maintain caseloads of students and provide on-going support.

The [Careers Service](#) provides central support for skills enhancement, running [The Gold Award](#) scheme and other co-curricular activities that are accredited via the Higher Education Achievement Report ([HEAR](#)).

The [Academic Skills Centre](#) works with academic departments offering bespoke academic literacy sessions. It also provides a programme of academic skills workshops and one-to-one provision for students throughout the year.

## **Links with employers, placement opportunities and career prospects**

Visual interface design; computer graphics; games and animation; music production and cataloguing services; multimedia systems analysis; research and development in media and entertainment; Film/television production and special effects companies. Employers increasingly demand that new recruits are able to add immediate value to their organisation. Because this programme offers the option of an industrial placement year, students can demonstrate that they have already achieved a certain level of professional competence and maturity, which could help you stand out in the job market.

## **The requirements of a Goldsmiths degree**

Undergraduate degrees have a minimum total value of 360 credits. Some programmes may include a year abroad or placement year and this may be reflected in a higher total credit value. The MSci year consists of modules to the value of 120 credits. Programmes are composed of individual modules, each of which has its own credit value. Full-time students take modules to the value of 120 credits each year and part-time students not less than 45 credits and not more than 90 credits each year. If a programme has a part-time pathway, the structure will be set out in the section “How the programme is structured” above. Each full-time year corresponds to a level of the Framework for Higher Education Qualifications (FHEQ), as follows:

- Year 1 = Level 4
- Year 2 = Level 5
- Year 3 = Level 6
- Year 4 (MSci) = Level 7

More detailed information about the structure and requirements of a Goldsmiths degree is provided in the [Goldsmiths Qualifications and Credit Framework](#).

## **Modules**

Modules are defined as:

- “Optional” – which can be chosen from a group of modules
- “Compulsory” – which must be taken as part of the degree

- “Compulsory (Non-compensatable)” – Some compulsory modules are central to the achievement of a programme’s learning outcomes. These are designated as “Non-compensatable” for that programme and must therefore be passed with a mark of at least 40% in order to pass the module.

## **Progression**

Full-time students are required to have passed modules to a minimum of 90 credits before proceeding to the next year. Part-time students must normally pass new modules to a minimum value of 45 credits before proceeding to the next year.

In addition, some programmes may specify particular modules which must be passed, irrespective of the minimum requirements, before proceeding to the next year.

In order to progress from the BSc to the MSci students must have an aggregate mark of 50% or higher on modules at levels 5 and 6 and 60% or higher on the Part 3 project.

## **Award of the degree**

In order to graduate with a classified degree, students must successfully complete modules to the minimum value of 360 credits, as set out within the section “The requirements of a Goldsmiths degree” above. A failed module with a mark of 35-39% may be compensated (treated as if it has been passed) so long as the average mean mark for all 120 credits at that level is 45% or above and the module has not been defined as “Non-compensatable”. No more than 60 credits may be compensated this way across a programme and no more than 30 credits at any one level.

In order to graduate with an MSci, students must successfully complete modules to the value of 120 credits at level 7 as specified in the section of the programme specification: “How the programme is structured”.

## **Classification**

Final degree classification of the BSc will usually be calculated on the basis of a student's best marks for modules equivalent to 90 credits at Level 4, 105 credits at level 5 and 105 credits at level 6, applying a relative weighting of 1:3:5 to modules at level 4, 5 and 6 respectively.

In addition to the calculation set out above, the final classification of the MSci will be made using the marks for all modules at level 7 applying a relative weighting of 1:3:5:7.

Degrees are awarded with the following classifications:

- 1st: First Class – 70%+
- 2.1: Upper Second – 60-69%
- 2.2: Lower Second – 50-59%
- 3rd: Third – 40-49%

Students who, following the application of compensation and having used all their permitted resit attempts, have passed modules to the value of 300-345 credits, at least 60 of which are at level 6 may be awarded a pass degree.

More detail on the [calculation of the final classification](#) is on our website.

## **Interim exit awards**

Some programmes incorporate interim exit points of Certificate of Higher Education and/or Diploma of Higher Education, which may be awarded on the successful completion of modules to the value of 120 credits at level 4 or 240 credits (120 of which at level 5) respectively. The awards are made without classification.

When these awards are incorporated within the programme, the relevant learning outcomes and module requirements will be set out within the “What you will be expected to achieve” section above.

The above information is intended as a guide, with more detailed information available in the [Goldsmiths Academic Manual](#).

## **Programme-specific rules and facts**

### **General programme costs**

In addition to your tuition fees, you will be responsible for meeting standard costs associated with your study. Find out more information at [gold.ac.uk/programme-costs](http://gold.ac.uk/programme-costs).

### **Specific programme costs**

Not applicable.

## **How teaching quality will be monitored**

Goldsmiths employs a number of methods to ensure and enhance the quality of learning and teaching on its programmes.

Programmes and modules are formally approved against national standards and are monitored throughout the year, such as in departmental committees, a variety of student feedback mechanisms and through the completion of module evaluation questionnaires. Every programme has at least one External Examiner who reviews comments annually on the standards of awards and student achievement. External Examiner(s) attend Boards of Examiners meetings and submit an annual written report.

Modules, programmes and/or departments are also subject to annual and periodic review internally, as well as periodic external scrutiny.

Quality assurance processes aim to ensure Goldsmiths' academic provision remains current, that the procedures to maintain the standards of the awards are working effectively and the quality of the learning opportunities and information provided to students and applicants is appropriate.

Detailed information on all these procedures are published on the [Quality Office web pages](#).