

# **BMus/BSc (Hons) Electronic Music, Computing and Technology**

## **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:**

BMus/BSc (Hons) Electronic Music, Computing and Technology

**Name of Interim Exit Award(s):** Not applicable

**Duration of Programme:**

3 years full-time / 4 years full-time (including placement)

**UCAS Code(s):** WG34

**HECoS Code(s):**

(100070) Music 50%

(100366) Computer Science 50%

**QAA Benchmark Group:** Music; Computing

**FHEQ Level of Award:** Level 6

**Programme accredited by:** Not applicable

**Date Programme Specification last updated/approved:** June 2018

**Home Department:** Music

**Department(s) which will also be involved in teaching part of the programme:**

Computing

## **Programme overview**

The BMus/BSc programme accords with Goldsmiths' aims to pursue intellectual curiosity, work beyond the "boundaries of preconceptions" and provide "a unique and creative approach" to subjects. This programme, a collaboration between the Departments of Music and Computing, is an innovative synthesis of contemporary musical practice and musicology with the creative and analytical applications of computer science. It builds upon well-established research collaborations that link the two departments, in areas such as interactive performance, computer-based analysis and music cognition.

The programme is designed to meet the opportunities, challenges and intellectual demands presented by careers in the culture industries, in music technology and in audio, music and

media related computing. You will encounter the most up-to-date technologies and programming methods, and explore current issues in software design, sonic art, contemporary composition and musicology.

The programme meets the demands of the rapidly evolving and innovative subject area of music computing. It fosters further development of our interdisciplinary understandings across the broad fields of computer science, creative practice and musical research. You will study how computers represent and reproduce sound and music, how they can derive, generate or 'invent' processes and structures for music, and how such processes can be used for creative purpose.

This programme is informed by the Departments of Music and Computing Learning and Teaching Strategies, as well as by external guidelines and frameworks, including the QAA Music and Computing subject benchmark statements and the QAA qualifications framework.

## **Programme entry requirements**

You will be expected to have at least BBB at A2 level, BTEC DDM or IB 33 points overall with three HL subjects at 655 or Access: Pass with 45 Level 3 credits including 30 at Distinction & 15 at Merit or equivalent. An A2 level, or equivalent, qualification in Music or Music Technology is preferred. However, we encourage applications from those without a formal qualification in music who can demonstrate relevant knowledge and experience.

At the interview stage you may be asked to present a portfolio of recent work relevant to your knowledge and experience of music and/or Computing (for example: creative work in music technology or other media, musical scores and recordings, written work).

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.

## **Aims of the programme**

You develop the critical, technical and intellectual skills needed to be able to analyse problems, design and implement solutions on computers and communicate your ideas in a variety of forms.

You develop awareness of diversity in music and the diversity of values, critical stances and analytical methods, in their historical and cultural contexts. The programme encompasses a wide range of repertoires of music, offering modules that reference various aspects of film music, Western art and contemporary music, popular music, 'world' music, sound art and electronic music. By exploring the interrelationships between theories of music and

computing, and between theoretical understanding and creative practice, you develop the knowledge and skills to create your own independent research project in your final year.

## What you will be expected to achieve

Students who successfully complete the programme will be able to:

### Knowledge and understanding

| Code | Learning outcome   | Taught by the following module(s)  |
|------|--|--|
| A1   | demonstrate knowledge of the interrelationships between computer science, musicology and creative practice. The knowledge should be sufficient to produce substantial creative musical work with computers.                        | Music Computing 1, 2, Music: Major Project   |
| A2   | demonstrate knowledge of a wide range of topics underlying computers and software design, as relevant to music computing. A broad range of topics will be known to a basic level and for BSc students some will be known in depth. | Level 4 compulsory Computing modules, Level 5 compulsory Computing modules for Pathway 1, 2, 3               |
| A3   | demonstrate knowledge of advanced theoretical models and abstractions that underpin reasoning about computing systems. This knowledge will be sufficient to understand and implement substantial software systems.                 | Introduction to Programming, Level 5 Computing modules for Pathway 1, 2, 3                                   |
| A4   | demonstrate knowledge of key concepts and technical strategies evident in a range of musical repertoires, which may include contemporary music and sonic art, Western art music, popular and 'world' music.                        | Approaches to Contemporary Music, Level 5 compulsory and optional Music modules for Pathway 1, 2, 4          |
| A5   | demonstrate knowledge of critical approaches and analytical methods that can be applied to music, appraised in aural and written form, to the standard of academic discourse for BMus students.                                    | Approaches to Contemporary Music, Level 5 and 6 compulsory and optional modules in Music for Pathway 1, 3, 4 |

| <b>Code</b> | <b>Learning outcome</b>   | <b>Taught by the following module(s)</b>   |
|-------------|---|--|
| A6          | demonstrate knowledge of selected musical discourses and practices in their historical, societal and cultural context.                                | Electronic Music Composition and History, Level 5 and 6 compulsory and optional modules in Music for Pathway 1, 3, 4   |
| A7          | demonstrate knowledge of theoretical and contextual systems that inform creative practice in software design, musical interpretation and composition. | Music Computing 2, Perception and Multimedia Computing for Pathway 1, 2, 3 and Computing: Major Project for Pathway 1, 2 Music: Major Project for Pathway 3, 4 |

## **Cognitive and thinking skills**

| <b>Code</b> | <b>Learning outcome</b>   | <b>Taught by the following module(s)</b>   |
|-------------|---|--|
| B1          | analyse moderately complex computing systems to verify they are correct and well designed.  | Introduction to Programming  |
| B2          | critically self-evaluate creative and technical work, and evaluate the work of others   | Music Computing 1, 2   |
| B3          | assess effectively a user's requirements and specifications, in order to design and realise a solution to a moderately complex problem. | For BSc students: Computing: Major Project for Pathway 1, 2  |
| B4          | solve problems in a systematic, logical manner.   | All compulsory and optional Computing modules  |
| B5          | apply intuitive and experimental methods in the production of creative work   | Music Computing 1, 2, Computing: Major Project for Pathway 1, 2, Music: Major Project for Pathway 3, 4 |

## **Subject specific skills and professional behaviours and attitudes**

| <b>Code</b> | <b>Learning outcome</b>  | <b>Taught by the following module(s)</b>   |
|-------------|--|--|
| C1          | apply current analytical and musicological methods to assimilate, assess and interpret music                       | Approaches to Contemporary Music, Electronic Music Composition and History               |
| C2          | compose music to a professional level in the form of studio-based media and/or live performance for BMus students. | Live Performance Systems, Electronic Music Composition and History, Music Computing 1, 2 |
| C3          | apply different algorithms and data structures, both well- established and   | Music Computing 1, 2   |

| <b>Code</b> | <b>Learning outcome</b>  | <b>Taught by the following module(s)</b>  |
|-------------|--|---|
|             | innovative, with particular reference to musical applications.   |   |
| C4          | implement a moderately complex functional specification from generalised requirements, demonstrating an understanding of correct processes and their concomitant problems.   | Music Computing 1, 2 Computing: Major Project for Pathway 1, 2, Music: Major Project for Pathway 3, 4 |
| C5          | undertake a substantial independent project in which you design, implement, test (realise or perform with, as appropriate) and evaluate a software system for musical application<br>OR undertake a substantial independent project in which you design and carry out a creative project by using appropriate research and computing methods and by synthesizing relevant compositional techniques, source materials and contextual writing. | Computing: Major Project for Pathway 1, 2, Music: Major Project for Pathway 3, 4                      |

## Transferable skills

| <b>Code</b> | <b>Learning outcome</b>  | <b>Taught by the following module(s)</b>   |
|-------------|--|--|
| D1          | use library resources, databases, and other research tools to identify, collect and reference primary and secondary material, to academic standards. | Many modules in Music and Computing involve project- style assessments in which the student is expected to undertake independent research.   |
| D2          | use information technology effectively, including music- writing and word processing programmes.   | All modules  |
| D3          | structure and communicate ideas effectively and persuasively, both orally and writing to a professional level.                                       | Many modules in Music and Computing require the submission of essays, critical evaluation and technical reports. There will oral presentations of ideas and work in Music Computing 1, 2, Computing: Major Project for Pathway 1, 2, and Music: Major Project for Pathway 3, 4 |

| Code | Learning outcome   | Taught by the following module(s)   |
|------|--|---|
| D4   | work independently and effectively, and sustain work in the production of a substantial project. | Computing: Major Project for Pathway 1, 2 Music: Major Project for Pathway 3, 4 |

## How you will learn

The Departments of Music and Computing are 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 interdisciplinary subject of music computing. Knowledge of the interrelationships between computer science, musicology and creative practice is consistently fostered and developed through independent and collaborative projects across years 1 and 2, in both music or computing specialist modules and the compulsory music computing modules themselves. This is fully integrated in the supervision of final year project that will draw together programme elements. 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.

New and existing modules provide network of cross-referenced and cumulative knowledge across modules; this is further developed through your independent research and learning activities directed towards course assignments and the large-scale project component. 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-seminar 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.

Programme outcomes that emphasise knowledge and understanding are developed in lecture seminar sessions, supported by tutorials, and where relevant, lab/workshop sessions. Practical and subject-related skills are developed through class-based tasks, either individually or in groups, (including analytic, listening-based, or discursive exercises) or by setting up or reviewing follow-up tasks undertaken outside of class. Lab sessions, practical workshops (e.g. composition workshops) and music studio sessions provide opportunity for you to develop and present the wide range of skills in computing and music necessary. Cognitive and transferable skills are integral to your learning experiences across all elements of the programme.

The relative extent of a lecture, seminar or task-based component in any individual module or session depends on the learning outcomes and material at hand. Class discussion and

debate, whether staff- or student-led, encourages collaborative engagement with questions, issues, problems and exercises that help develop your individual learning. Independent learning requires close and rigorous engagement with primary and secondary sources, as directed by module materials and online resources, including instructional 'off-the-shelf' software modules and other online resources, musical scores, recordings, film, historical documents and a range of other relevant materials. The relevant library resources are referenced to help develop research-based and ITC related skills. Your learning development is supported and reviewed in tutorial meetings that occur across the academic year. Learning and teaching is supported by a wide variety of practical activities that pertain to various aspects of the programme, including the Music Department's concert series, masterclasses, guest lectures, events run by the Music Research Forum, Digital Studios and Unit for Sound Practice Research.

Options: The programme offers a degree of flexibility at levels 5 and 6, in order to offer learning opportunities across the broad range of theoretical and practical subjects encompassed by music and computing. Students may choose to specialize in either subject after second year (Pathway 2, 4) or they may decide to have their modules remain evenly spread across both departments until their third year of study (Pathway 1, 3). They will select their options with the advice and agreement of their personal tutor and the programme convener at various stages in the degree programme.

## **How you will be assessed**

Summative and formative assessment of the programme outcomes occurs across the Programme. Individual modules deploy the most effective and appropriate assessment method(s) according to the topic and learning outcomes.

The methods comprise:

1. a written document (e.g. a 3,000-word essay) that demonstrates an ability to apply reasoning to a set question, comparative or analytical task, conduct independent research and produce an academic argument that can be supported by evidence and examples, or to provide self-reflective commentary.
2. a coursework portfolio that demonstrates an ability to undertake one or more practical or creative task(s) in response to explicit criteria (e.g. a composition, a musical performance, a transcription) and write a short self-evaluation.
3. an unseen examination that demonstrates the ability to apply reasoning to set question(s), comparative or analytical task(s) and produce reasoned solutions and/or academic argument supported by evidence.
4. an oral presentation that demonstrates an ability to articulate and present coherent solutions, arguments and understandings relevant to tasks set, and respond to feedback in discussion with peers and tutors.

The programme outcomes are achieved and demonstrated in their most extensive and comprehensive form in the final year project component that is compulsory for the programme.

The methods are:

1. a software application project based upon an independent area of theoretical and practical research, in which you design, implement, test (realise or perform with, as appropriate) and evaluate a software system for musical application. Accompanied by a research essay c.3,000 words.
2. a creative project based upon an independent area of theoretical and practical research, in which you design and carry out a creative project (e.g. substantial composition, improvisations, sound installation) by using appropriate research and computing methods and by synthesizing relevant compositional techniques, source materials and contextual writing. Appropriate media accompanied by a research essay c.3,000 words.
3. formative assessment occurs in class discussion of tasks set, tutorial review of your progress as well as through written and oral feedback.

## Marking criteria

| Mark    | Descriptor               | Specific Marking Criteria  |
|---------|--------------------------|--|
| 80-100% | 1st: First (Exceptional) | <p>Represents the overall achievement of the appropriate learning outcomes to an exceptionally accomplished level. Overall the work demonstrates the conceptualisation, coherency, contextual appropriateness, theoretical sophistication, critical evaluation, accuracy and, above all, originality. Any omissions that occur arise as a result of a deliberate, justified focus, rather than through any lack of awareness or incompetence.</p> <p>Text-based assessment: the text is structured with exceptional clarity and cogency, the argument is compelling and the presentation and scholarly procedures employed are flawless.</p> <p>Creative work: Works will demonstrate a fluency of approach and outstanding qualities with strong evidence of originality, individuality and conceptual coherence. They will demonstrate a sophisticated synthesis of technique, theoretical understanding and imagination. Works will clearly address well articulated aims of contemporary relevance, and will demonstrate an incisive exploration of aesthetic and technical issues. Relevant materials will be produced to a professional standard, with written commentaries that</p> |



| Mark   | Descriptor                    | Specific Marking Criteria   |
|--------|-------------------------------|---|
|        |                               | evidence a sophisticated and critical approach to contextual frameworks.  |
| 70-79% | 1st: First (Excellent)        | <p>Represents the overall achievement of the appropriate learning outcomes to an excellent level. Overall the work shows evidence of rigorous analytical research in its conceptualisation of the project; an excellent level of response to the set tasks; the conceptual coherency of the work/project is strong and ideas are deployed within a clearly defined contextual framework. There is evidence of a thorough grasp of relevant concepts, methods and contents appropriate to the assessed work, and demonstrate originality in application of ideas, in synthesis of material and/or in design and implementation of systems.</p> <p>Text-based assessment: the text is extremely well structured, ideas are developed, articulated and synthesised to a high standard through cogent argument throughout. Correct scholarly procedures and theoretical frameworks are consistently employed with care, accuracy and an understanding of their purpose.</p> <p>Creative and technical work: Creative works and computer systems will demonstrate an excellent standard with strong evidence of originality, individuality and conceptual coherence. They will demonstrate a convincing synthesis of technique, theoretical understanding and imagination. Creative works and computer systems will be well conceived and will demonstrate an incisive exploration of technical, conceptual and aesthetic issues, as relevant. Relevant materials will be produced to a professional standard, with written commentaries that evidence a sophisticated and critical approach to contextual frameworks.</p> |
| 60-69% | 2.1: Upper Second (Very good) | <p>Represents the overall achievement of the appropriate learning outcomes to a very good level. Overall evidence of good analytical research in the conceptualisation of the project; a very good level of response to the set tasks; the conceptual coherency of the work/project is good and ideas deployed within a defined contextual framework. The candidate must also demonstrate good skills in application of ideas, in synthesis of material and/or in design and implementation of systems. Such work is generally missing the sense of originality that is sought from first class work.</p> <p>Text-based assessment: the text is well organised, the main argument is clearly focused and constructed. Correct</p>   |

| Mark   | Descriptor               | Specific Marking Criteria   |
|--------|--------------------------|---|
|        |                          | <p>scholarly procedures are employed throughout with accuracy.</p> <p>Creative and technical work: Creative works and computer systems will demonstrate a high standard with clear signs of conceptual coherence and individuality. They will demonstrate the confident and effective use of a range of techniques, informed by theoretical understanding and imagination. Scores, CDs, data or other relevant materials will be produced to a high standard, with written commentaries that demonstrate individual insight and assimilation of contextual frameworks.</p>  |
| 50-59% | 2.2: Lower Second (Good) | <p>Represents the overall achievement of the appropriate learning outcomes to a good level. There is evidence of an adequate level of understanding of relevant tasks, concepts, methods, and context and of sufficient skill to tackle the problem at hand. Such work is likely to demonstrate a lower level of competence and less insight in analysis than upper second class work.</p> <p>Text-based assessment: the text is structured around an argument, though not consistently focused; scholarly procedures are employed throughout and are largely correct though routinely applied.</p> <p>Creative and technical work: Creative works and computer systems will demonstrate an overall satisfactory standard showing some degree of originality or potential. They will demonstrate technical competence, relevant knowledge and understanding, a degree of imaginative thinking and conceptual coherency. Scores, CDs, data or other relevant materials will be adequately produced, with written commentaries that show some awareness of context.</p> |
| 40-49% | 3rd: Third (Pass)        | <p>Represents the overall achievement of the appropriate learning outcomes to an adequate level. Overall mainly adequate level of response to the set task; the conceptual coherency of the work/project is largely adequate. There is some recognition of the problem and attempt at a solution, however, the work falls short of the expectations in terms of understanding and/or skills or technical ability. Such work is generally differentiated from failure by a sense of a positive, if limited, engagement by the candidate.</p> <p>Text-based assessment: The text evidences some structure and / or sound argument and the focus; there are minor</p>  |

| Mark   | Descriptor | Specific Marking Criteria  |
|--------|------------|--|
|        |            | <p>inconsistencies and mistakes in the usage of scholarly procedures and their presentation.</p> <p>Creative and technical work: Creative works and computer systems will demonstrate some merit: they will demonstrate adequate technical competence, and conceptual coherence. Scores, CDs, data or other relevant materials will be adequate.</p>   |
| 25-39% | Fail       | <p>Represents the overall achievement of the appropriate learning outcomes to an unsatisfactory level. Work shows some evidence of an attempt to address the question or task, but with inadequate detail, analysis or evidence of technique; there is insufficient evidence that the concerns of the module have been understood; and/or less than the minimum degree-level competence in expression and organisation.</p> <p>Text-based assessment: The text lacks structure and / or sound argument; the focus is not clear; there are major inconsistencies and mistakes in the usage of scholarly procedures and their presentation.</p> <p>Creative and technical work: Creative work demonstrate some engagement with the task set but will fail to meet honours standards: they will demonstrate inadequate technical competence, imaginative thinking or conceptual coherency.</p> <p>Scores, CDs, data or other relevant materials may be poorly produced. Performance: there is an unsatisfactory control of the voice or instrument. There is some evidence of musical understanding but this is undermined by technical deficiency.</p> |
| 10-24% | Bad fail   | <p>Represents an overall failure to achieve the appropriate learning outcomes. The work is deficient in most respects, revealing insufficient grasp of material and poor organisation and an inability to identify and address the task required.</p> <p>Text-based assessment: The text entirely lacks structure and focus; there are major inconsistencies and mistakes in the usage of scholarly procedures and their presentation.</p> <p>Creative and technical work: This will demonstrate inadequate technical competence, imaginative thinking or conceptual coherency. Relevant materials will be inadequately produced.</p>  |

| Mark | Descriptor                    | Specific Marking Criteria   |
|------|-------------------------------|---|
|      |                               | Performance: There is a significant lack of control of the voice or instrument, with little or no evidence of musical understanding.                |
| 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 module must be re-sat). |
| 0%   | Non submission or plagiarised | A categorical mark representing either the failure to submit an assessment or a mark assigned for a plagiarised assessment.                         |

## How the programme is structured

In the first year all students study the fundamentals of computer programming, contemporary music and music technology. Compulsory modules establish all the key areas of this innovative subject; these culminate in a final year Music Computing Major Project. The programme also allows students to identify and develop strengths and interests by choosing various specialist options in the Departments of Music and Computing from the second year of the programme. The project topic and specialist pathway will determine the award of either BMus (Hons) or BSc (Hons).

Module lists in years 2 and 3 are indicative. Some modules may not be available in some years.

The table below summarises the four pathways available:

| Pathway | Degree awarded | Year 2 focus              | Year 3 project module    |
|---------|----------------|---------------------------|--------------------------|
| 1       | BSc            | 50:50 Music:<br>Computing | Computing: Major Project |
| 2       | BSc            | Computing                 | Computing: Major Project |
| 3       | BMus           | 50:50 Music:<br>Computing | Music: Major Project     |
| 4       | BMus           | Music                     | Music: Major Project     |

At level 4 (year 1) students take the following compulsory modules:

Introduction to Programming: Part  
 Numerical Mathematics  
 Sound and Signal 1  
 Approaches to Contemporary Music  
 Music Computing 1

Live Performance Systems  
Electronic Music Composition and History

At level 5 (year 2) students take the compulsory module MU52047A Music Computing 2 (30 CATS) and select from one of the four possible pathways through the programme:

Pathway 1 and 3, 50/50 Music and Computing

Sonic Arts Techniques (15 CATS)  
Sonic Arts Practice (15 CATS)  
Sound and Signal 2 (15 CATS)  
Popular Music Production (15 CATS)  
Perception and Multimedia Computing (15 CATS)  
Principles and Applications of Programming 1 (15 CATS)

Pathway 2, Computing focus

Perception and Multimedia Programming (15 CATS)  
Sound and Signal 2 (15 CATS)  
Creative Projects 2 (30 CATS)  
Students take one of the following pairs of modules in Java or C++:  
Either Java for Industry (15 CATS) and Extended Java(15 CATS)  
Or C++ for Creative Industry (15 CATS) and Extended C++(15 CATS)

Pathway 4, Music focus

Sonic Arts Techniques (15 CATS)  
Sonic Arts Practice (15 CATS)  
Popular Music Production (15 CATS)  
+ 3 Music electives (45 CATS)

For Pathway 4, optional modules are selected to the value of 45 CATS (credits), from a list of available Music electives published annually. Students must take 60 CATS in each term to balance workload.

At Level 6 (year 3), to earn a BSc (Pathway 1 or 2) students must take the Compulsory module Computing: Major Project (60 CATS) and may select 3 or 4 modules from the list of available Computing electives (45 – 60 CATS) and 0 or 1 from a list of Music electives, subject to change, for a total of 60 CATS:

Introduction to Audiovisual Composition (15 CATS)  
Live Electronics (15 CATS)

To earn a BMus (Pathway 3 or 4), students must take the Compulsory (Non-compensatable) module Music: Major Project (60 CATS) and may select 3 or 4 modules from the available Music electives (45 – 60 CATS) and 0 or 1 from a list of Computing electives, subject to change, for a total of 60 CATS:

Physical Computing (15 CATS)

Data and Machine Learning for Creative Practice (15 CATS)

In either case, students must take a total equivalent to 60 CATS in each term to balance workload.

### Academic year of study 1

| Module Title                             | Module Code | Credits | Level | Module Status                  | Term    |
|--|-------------|---------|-------|--------------------------------|---------|
| Introduction to Programming              | IS51031B    | 15      | 4     | Compulsory                     | 1 and 2 |
| Numerical Mathematics                    | IS51026B    | 15      | 4     | Compulsory                     | 1       |
| Sound and Signal 1                       | IS51029B    | 15      | 4     | Compulsory                     | 2       |
| Approaches to Contemporary Music         | MU51024B    | 15      | 4     | Compulsory                     | 2       |
| Music Computing 1                        | MU51047B    | 30      | 4     | Compulsory (Non-compensatable) | 1 and 2 |
| Live Performance Systems                 | MU51057A    | 15      | 4     | Compulsory                     | 1 and 2 |
| Electronic Music Composition and History | MU51063A    | 15      | 4     | Compulsory                     | 2       |

### Academic year of study 2

| Module Title   | Module Code | Credits | Level | Module Status                  | Term    |
|--|-------------|---------|-------|--------------------------------|---------|
| Music Computing 2  | MU52047B    | 30      | 5     | Compulsory (Non-compensatable) | 1-2     |
| Perception & Multimedia Computing                        | IS52020D    | 15      | 5     | Compulsory for Pathway 1, 2, 3 | 1 and 2 |
| Sonic Art Techniques                                     | MU52024C    | 15      | 5     | Compulsory for Pathway 1, 3, 4 | 2       |
| Sonic Art Practice (co-requisite "Sonic Art Techniques") | MU52028C    | 15      | 5     | Compulsory for Pathway 1, 3, 4 | 2       |
| Popular Music Production                                 | MU52025D    | 15      | 5     | Compulsory for Pathway 1, 3, 4 | 2       |

| Module Title  | Module Code | Credits | Level | Module Status                  | Term    |
|---|-------------|---------|-------|--------------------------------|---------|
| Sound and Signal 2  | IS52XXXX    | 15      | 4     | Compulsory for Pathway 1, 2, 3 | 2       |
| Creative Computing Project 2  | IS52030B    | 30      | 5     | Compulsory for Pathway 2       | 1 and 2 |
| STUDENTS ON PATHWAY 2 TAKE ONE OF THE BELOW PAIRS OF MODULES IN EITHER JAVA OR C++ TO THE VALUE OF 30 CREDITS |             |         |       |                                |         |
| Java for Industry   | IS52XXXX    | 15      | 5     | Optional for Pathway 2         | 1       |
| Extended Java   | IS52XXXX    | 15      | 5     | Optional for Pathway 2         | 2       |
| C++ for Creative Industry   | IS52XXXX    | 15      | 5     | Optional for Pathway 2         | 1       |
| Extended C++  | IS52XXXX    | 15      | 5     | Optional for Pathway 2         | 2       |
| Principles & Applications of Programming (15 credit version)  | IS52028D    | 15      | 5     | Compulsory for Pathway 1, 3    | 2       |
| Optional modules to the value of 45 CATS from Music   | Various     | 45      | 5     | Optional for Pathway 4         | 1-2     |

### Academic year of study 3

| Module Title  | Module Code | Credits | Level | Module Status                                      | Term |
|---|-------------|---------|-------|--|------|
| Students must take ONE of the Major Project modules below (only one is Compulsory):                   |             |         |       |  |      |
| EITHER:<br>Computing: Major Project   | IS53043A    | 60      | 6     | Compulsory (Non-compensatable) for Pathway 1 and 2 | 1-2  |
| OR: Music: Major Project  | MU53043B    | 60      | 6     | Compulsory (Non-compensatable) for Pathway 3 and 4 | 1-2  |
| Optional modules to the value of 45 - 60 CATS from Computing, and 0 - 15 CATS from Music. Modules are | Various     | 60      | 6     | Optional for Pathway 1, 2                          | 1-2  |

| Module Title  | Module Code | Credits | Level | Module Status             | Term |
|---|-------------|---------|-------|---------------------------|------|
| selected from an annually available list.   |             |         |       |                           |      |
| Optional modules to the value of 45 - 60 CATS from Music, and 0 - 15 CATS from Computing. Modules are selected from an annually available list. | Various     | 60      | 6     | Optional for Pathway 3, 4 | 1-2  |

## 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**

The programme is designed with careful consideration of the opportunities, challenges and intellectual demands presented by careers in music technology and music computing, and the various professions involving computing in the cultural sector, such as the sonic arts and performance, film and TV composition, sound design, web design, broadcasting, systems analysis and management, IT consultancy, librarianship, arts administration, and music record production. In addition, the course acts as a gateway to further study at Masters and PhD level, creating opportunities in computer music research and music software development.

## **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. 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

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.

## 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.

## Classification

Final degree classification 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.

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

Students who have progressed to their work placement year while carrying over a failed module are not required to retake that module during the period of the work placement. A period in which they are doing their placement will not be required to count as an “eligible opportunity” for retaking. This regulation applies any examination period (summer and/or spring), if, and only if, the student is on a placement during that examination period.

## **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](#).