BMus/BSc 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
Final Award:
Programme Name: BMus/BSc (Hons) Electronic Music, Computing and Technology
Total credit value for programme: 360
Name of Interim Exit Award(s): Certificate of Higher Education in Electronic Music, Computing and Technology; Diploma of Higher Education in Electronic Music, Computing and Technology
Duration of Programme: 3 years full-time / 4 years full-time (including placement)
UCAS Code(s): WG34
HECoS Code(s): (100070) Music 50% and (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: May 2024
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 purposes. You will 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. 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.

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.

Programme learning outcomes

Students who achieve the Certificate of Higher Education in Music (120 credits at level 4) will be able to:

Knowledge and understanding

Code	Learning outcome	Taught by the following module(s)
A1	Demonstrate a basic knowledge of the interrelationships between computer science, musicology and creative practice.	Music Computing 1
A2	Demonstrate a basic knowledge of some topics underlying computers and software design, as relevant to music computing.	Level 4 compulsory Computing modules
A3	Demonstrate a basic knowledge of some theoretical models and abstractions that underpin reasoning about computing systems.	Introduction to Programming
A4	Demonstrate a basic knowledge of some key concepts and technical strategies evident in a range of musical repertoires	CONTEMPORARY MUSIC INDUSTRIES
A5	Demonstrate a basic knowledge of critical approaches that can be applied to music	CONTEMPORARY MUSIC INDUSTRIES
A6	Demonstrate a basic knowledge of selected musical discourses and practices in their historical, societal and cultural context.	Electronic Music Composition

Cognitive and thinking skills

Code	Learning outcome	Taught by the following module(s)
B1	Analyse computing systems to verify they are correct and well designed.	Introduction to Programming
B2	Self-evaluate creative and technical work, and identify good practice in the work of others	Music Computing 1
B3	Solve problems in a systematic, logical manner.	All compulsory Computing modules
B4	Apply intuitive and established methods in the production of creative work	Music Computing 1 and Electronic Music Composition

Subject specific skills and professional behaviours and attitudes

Code	Learning outcome	Taught by the following module(s)
C1	Apply a basic knowledge of analytical and musicological methods to assess and interpret music	CONTEMPORARY MUSIC INDUSTRIES, Electronic Music Composition
C2	Compose music in the form of studio-based media and/or live performance.	Live Performance Systems, Electronic Music Composition, Music Computing 1
C3	Apply well established algorithms and data structures, with particular reference to musical applications.	Music Computing 1, Introduction to Programming, Sound & Signal 1
C4	Implement a functional specification from generalised requirements, demonstrating an understanding of correct processes	Music Computing 1

Transferable skills (Elements)

Code	Learning outcome	Taught by the following module(s)
D1	Use library resources to identify and reference primary and secondary material, to academic standards.	CONTEMPORARY MUSIC INDUSTRIES
D2	Use information technology appropriately, including processing programmes.	All modules at Level 4
D3	Structure and communicate ideas, both orally and writing	CONTEMPORARY MUSIC INDUSTRIES, and Electronic Music Composition

Students who achieve the Diploma of Higher Education in Music (240 credits: 120 at level 5 and 120 at level 4) will be able to:

Knowledge and understanding

Code	Learning outcome	Taught by the following module(s)
A1	Demonstrate a good knowledge of the interrelationships between computer science, musicology and creative practice.	Music Computing 1, 2
A2	Demonstrate a good knowledge of many topics underlying computers and software design, as relevant to music computing.	Level 4 compulsory Computing modules, Level 5 compulsory Computing modules for BSc pathway

A3	Demonstrate a good knowledge of many theoretical models and abstractions that underpin reasoning about computing systems.	Introduction to Programming, Level 5 Computing modules for BSc pathway
A4	Demonstrate a good knowledge of many key concepts and technical strategies evident in a range of musical repertoires.	CONTEMPORARY MUSIC INDUSTRIES, Level 5 compulsory and optional Music modules
A5	Demonstrate a good knowledge of critical approaches and analytical methods that can be applied to music	CONTEMPORARY MUSIC INDUSTRIES, Level 5 compulsory and optional modules in Music
A6	Demonstrate a good knowledge of selected musical discourses and practices in their historical, societal and cultural context.	Electronic Music Composition, Level 5 optional modules in Music
A7	Demonstrate a good knowledge of theoretical and contextual systems that inform creative practice in software design, musical interpretation and composition.	Music Computing 2 and Level 5 Music options

Cognitive and thinking skills

Code	Learning outcome	Taught by the following module(s)
B1	Analyse computing systems to verify they are correct and well designed.	Introduction to Programming
B2	Self-evaluate creative and technical work	Music Computing 1, 2
B3	Solve problems in a systematic, logical manner.	All compulsory and optional Computing modules
B4	Apply intuitive methods in the production of creative work	Music Computing 1, 2, and Electronic Music Composition

Subject specific skills and professional behaviours and attitudes

Code	Learning outcome	Taught by the following module(s)
C1	Apply a good knowledge of analytical and musicological methods to assess and interpret music	CONTEMPORARY MUSIC INDUSTRIES, Electronic Music Composition
C2	Compose music in the form of studio-based media and/or live performance.	Live Performance Systems, Electronic Music Composition, Music Computing 1, 2
C3	Apply well established algorithms and data structures, with particular reference to musical applications.	Music Computing 1, 2

C4	Implement a functional specification from generalised requirements, demonstrating an understanding of correct processes.	Music Computing 1, 2

Transferable skills

Code	Learning outcome	Taught by the following module(s)
D1	Use library resources and other research tools to identify and reference primary and secondary material, to academic standards.	CONTEMPORARY MUSIC INDUSTRIES, Optional modules in Music and Computing at Level 5
D2	Use information technology appropriately, including music-writing and word processing programmes.	All modules at Levels 4 and compulsory modules at Level 5.
D3	Structure and communicate ideas effectively, both orally and writing	CONTEMPORARY MUSIC INDUSTRIES, Electronic Music Composition, optional modules in Music and Computing at Level 5

By the end of the programme, students who complete all 360 credits to complete the BMus/BSc Electronic Music, Computing and Technology will be able to:

Knowledge and understanding

Code	Learning outcome	Taught by the following module(s)
A1	Demonstrate a comprehensive knowledge of the interrelationships between computer science, musicology and creative practice sufficient to produce substantial creative musical work with computers.	Music Computing 1, 2, EMCT: Music Final Project for BMus pathway
A2	Demonstrate knowledge of a wide range of topics underlying computers and software design, as relevant to music computing.	Level 4 compulsory Computing modules, Level 5 compulsory Computing modules for BSc pathway
A3	Demonstrate knowledge of advanced theoretical models and abstractions that underpin reasoning about computing systems sufficient to understand and implement substantial software systems.	Introduction to Programming, Level 5 and Level 6 Computing modules

A4	Demonstrate knowledge of a wide variety of key concepts and technical strategies evident in a range of musical repertoires,	CONTEMPORARY MUSIC INDUSTRIES, Level 5 compulsory and optional Music modules
A5	Demonstrate knowledge of a wide range of critical approaches and analytical methods that can be applied to music, appraised in aural and written form.	CONTEMPORARY MUSIC INDUSTRIES, Level 5 and 6 compulsory and optional modules in Music
A6	Demonstrate comprehensive knowledge of selected musical discourses and practices in their historical, societal and cultural context.	Electronic Music Composition, Level 5 and 6 compulsory and optional modules in Music
A7	Demonstrate advanced knowledge of theoretical and contextual systems that inform creative practice in software design, musical interpretation and composition.	Music Computing 2, and EMCT: Computing Final Project for BSc pathway and EMCT: Music Final Project for BMus pathway

Cognitive and thinking skills

Code	Learning outcome	Taught by the following module(s)
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, EMCT: Computing Final Project for BSc pathway, and EMCT: Music Final Project for BMus pathway
B3	Assess effectively a user's requirements and specifications, in order to design and realise a solution to a moderately complex problem.	EMCT: Computing Final Project for BSc pathway
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, EMCT: Computing Final Project for BSc pathway, EMCT: Music Final Project for BMus pathway

Subject specific skills and professional behaviours and attitudes

Code	Learning outcome	Taught by the following module(s)
C1	Apply a wide range of current analytical and musicological methods to assimilate, assess and interpret music	CONTEMPORARY MUSIC INDUSTRIES, Electronic Music Composition, and Level 5 and Level 6 optional modules for Music

C2	Compose music fluently and imaginatively in the form of studio-based media and/or live performance for BMus students.	Live Performance Systems, Electronic Music Composition, Music Computing 1, 2, and Level 5 and Level 6 optional modules for Music
C3	Apply a wide range of different algorithms and data structures, both well-established and innovative, with particular reference to musical applications.	Music Computing 1, 2 and Level 5 and Level 6 optional modules for Computing
C4	Implement a moderately complex functional specification from generalised requirements, demonstrating a comprehensive understanding of correct processes and their concomitant problems.	Music Computing 1, 2 EMCT: Computing Final Project for BSc pathway
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 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.	EMCT: Computing Final Project for BSc pathway and EMCT: Music Final Project for BMus pathway

Transferable skills

Code	Learning outcome	Taught by the following module(s)
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.	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, EMCT: Computing Final Project for BSc

		pathway, and EMCT: Music Final Project for BMus pathway
D4	Work independently and effectively, and sustain work in the production of a substantial project.	EMCT: Computing Final Project for BSc pathway, EMCT: Music Final Project for BMus pathway

Grading Criteria

GENERAL		
Mark	**Descriptor**	**Specific Marking Criteria**
80-100%	1st: First (Exceptional)	Represents the overall achievement of the appropriate learning outcomes to an exceptionally accomplished level. The work demonstrates 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.
70-79%	1st: First (Excellent)	Represents the overall achievement of the appropriate learning outcomes to an excellent level. The work shows evidence of rigorous analytical research in its conceptualisation of the project, and 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 and methods, and work demonstrates originality in the application of ideas, in the synthesis of material and/or in design, and in the implementation of systems.
60-69%	2.1: Upper Second (Very good)	Represents the overall achievement of the appropriate learning outcomes to a very good level. The work shows evidence of very good analytical research in the conceptualisation of the project, and a very good level of response to the set tasks. The conceptual coherency of the work/project is good, and ideas are deployed within a defined contextual framework. The candidate also demonstrates very good skills in the application of ideas, in the synthesis of material, and/or in the design and implementation of systems. Such work is generally

		missing the sense of originality that is sought from first-class work.
50-59%	2.2: Lower Second (Good)	Represents the overall achievement of the appropriate learning outcomes to a good level. There is evidence of a good level of understanding of relevant tasks, concepts, methods and contexts, 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.
40-49%	3rd: Third (Satisfactory)	Represents the overall achievement of the appropriate learning outcomes to an adequate level. The response to the set task and conceptual coherency of the work/project are mainly adequate. There is some recognition of the problem and attempt at a solution; however, the work falls short of expectations in terms of understanding and/or skills and technical ability. Such work is generally differentiated from failure by a sense of a positive, if limited, engagement by the candidate.
10-39%	Fail	25-39%: 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. 10-24%: Represents an overall failure to achieve the appropriate learning outcomes. The work is deficient in most respects, revealing an insufficient grasp of material, poor organization, and an inability to identify and address the task.
1-9%	Non-valid attempt	A submission that does not attempt to address the specified learning outcomes (module must be re-sat).

0%	Non-submission or plagiarised	A categorical mark representing either the failure to submit or attend an assessment, or a mark assigned for a plagiarised assessment.

WRITTEN OR SPOKEN ASSESSMENT		
Mark	**Descriptor**	**Specific Marking Criteria**
90-100% 80-89%	1st: First (Exceptional)	Written or spoken work demonstrates full independence of thought, superb powers of critical analysis and synthesis of existing literature, and exceptional insight into sources, contexts and methods. It displays an exceptional application of knowledge and understanding, with a commensurate, professional standard of execution, superbly structured. Ideas are communicated in a highly engaging manner. Written or spoken work is structured with exceptional clarity and cogency, represents an outstanding grasp of issues and concepts, and the argument creates new or expanded perspectives. Presentation skills are flawless and scholarly procedures expertly followed.
70-79%	1st: First (Excellent)	Written or spoken work is extremely well structured, and existing ideas are explained, explored and synthesised to a high standard through cogent argument throughout. Correct scholarly and presentational procedures are consistently employed with care, accuracy and an understanding of their purpose.
60-69%	2.1: Upper Second (Very good)	The content is well organised, and the main argument is clearly focused and constructed. The work exhibits an awareness of perspectives or relevant concepts. Relevant scholarly and presentational procedures are employed throughout with accuracy.

50-59%	2.2: Lower Second (Good)	The content is structured around an argument, though not consistently focused. Subject knowledge is accurate. Scholarly and presentational procedures are employed throughout and are correct on the whole.
40-49%	3rd: Third (Satisfactory)	Written or spoken work evidences some structure and/or sound argument and focus, and shows a basic understanding of the relevant concepts; there are minor inconsistencies and mistakes scholarly procedures and presentation.
10-39%	Fail	25-39%: The work lacks structure and/or sound argument; the focus is not clear; there is a limited awareness of relevant concepts; there are major inconsistencies and mistakes in scholarly procedures and matters of presentation. 10-24%: The text entirely lacks structure and focus; there is little or no awareness of key concepts; there are major inconsistencies and mistakes in scholarly procedures and presentation.
1-9%	Non-valid attempt	Work that does not attempt to address the specified learning outcomes (module must be re-sat).
0%	Non-submission or plagiarised	A categorical mark representing either non-submission, non-attendance, or a mark assigned for a plagiarised assessment.

CREATIVE AND TECHNICAL WORK		
Mark	**Descriptor**	**Specific Marking Criteria**
90-100%	1st: First (Exceptional)	Creative and technical work will demonstrate exceptional fluency, highly original execution, individuality and conceptual coherence. The candidate's work will effectively synthesise outstanding technique, theoretical understanding and imagination. Work will expertly address creative aims of contemporary urgency, and will demonstrate an incisive

80-89%		exploration of aesthetic and technical issues. Relevant supporting materials will be produced to a professional standard, with written commentaries that evidence an exceptionally critical approach to contextual frameworks. Creative and technical work will demonstrate a fluency of approach and outstanding qualities with strong evidence of originality, individuality and conceptual coherence. The candidate will demonstrate a sophisticated synthesis of technique and theoretical understanding. Works will clearly address well-articulated aims of contemporary relevance, and will demonstrate an incisive exploration of aesthetic and technical issues. Relevant supporting materials will be sophisticated, with written commentaries that evidence a critical approach to contextual frameworks.
70-79%	1st: First (Excellent)	Creative and technical work will demonstrate an excellent standard with strong evidence of originality, individuality and conceptual coherence. The candidate 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.
60-69%	2.1: Upper Second (Very good)	Creative and technical work will demonstrate a high standard with clear signs of conceptual coherence and individuality. The candidate will demonstrate the confident and effective use of a range of techniques, informed by theoretical understanding and imagination. Scores, recordings, software, data or other relevant materials will be produced to a high standard, with written commentaries that demonstrate individual insight and assimilation of contextual frameworks.

50-59%	2.2: Lower Second (Good)	Creative and technical work will demonstrate an overall satisfactory standard showing some degree of originality or potential. The candidate will demonstrate technical competence, relevant knowledge and understanding, a degree of imaginative thinking and conceptual coherency. Scores, recordings, data or other relevant materials will be adequately produced, with written commentaries that show some awareness of context.
40-49%	3rd: Third (Satisfactory)	Creative and technical work will demonstrate some merit: they will demonstrate adequate technical competence, and conceptual coherence. Scores, recordings, data or other relevant materials will be adequate.
10-39%	Fail	Creative and technical work demonstrates some engagement with the task set but will fail to meet honours standards: they will demonstrate inadequate technical competence, imaginative thinking or conceptual coherency. Scores, recordings, data or other relevant materials may be poorly produced. 10-24%: Creative and technical work will demonstrate inadequate technical competence and lack imaginative thinking or conceptual coherency. Relevant materials will be inadequately produced.
1-9%	Non-valid attempt	A submission that does not attempt to address the specified learning outcomes (module must be re-sat).
0%	Non-submission or plagiarised	A categorical mark representing either the failure to submit or attend an assessment, or a mark assigned for a plagiarised assessment.

Learning and Teaching

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 diverse 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. 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. Modules provide weekly lecture-seminar or other sessions, 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 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 ICT 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, workshops, 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 choose to specialize in either subject from second year via the BMus or BSc pathways. 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.

Forms of Assessment

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 project proposal and evidence of preliminary development work
2. 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.
3. 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.
4. formative assessment occurs in class discussion of tasks set, tutorial review of your progress as well as through written and oral feedback.

Mode of study

Full-time

Programme structure

Path way	Degree awarded	Year 1	Year 2	Year 3
1	BMus	Introduction to Programming Sound and Signal 1 CONTEMPORARY MUSIC INDUSTRIES Music Computing 1 Live Performance Systems	Music Computing 2 Additional minimum 45 credits in Music modules Remaining 45 credits in Music or Computing (with 30 credits available for optional modules)	EMCT: Music Project Prototype EMCT: Music Final Project Additional minimum 45 credits Music modules Remaining 30 credits in Music or Computing (or related study)

		Electronic Music Composition		
2	BSc	Introduction to Programming Sound and Signal 1 Critical Approaches to Contemporary Music Music Computing 1 Live Performance Systems Electronic Music Composition	Music Computing 2 Sound and Signal 2 Additional minimum 30 credits Computing modules Remaining 45 credits in Music or Computing (with 30 credits available for optional modules)	EMCT: Computing Project Prototype EMCT: Computing Final Project Additional minimum 45 credits Computing modules Remaining 30 credits in Music or Computing (or related study)

Academic year of study 1

Module Name	Module Code	Credits	Level	Module Type	Term
Introduction to Programming	IS51031B	15	4	Compulsory	1
Sound and Signal 1	IS51029B	15	4	Compulsory	2
CONTEMPORARY MUSIC INDUSTRIES	MU51024	15	4	Compulsory	1 and 2
Music Computing 1	MU51047C	30	4	Compulsory	1 and 2
Live Performance Systems	MU51057A	15	4	Compulsory	1
Electronic Music Composition	MU51063B	30	4	Compulsory	1 and 2

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
Music Computing 2	MU52047C	30	5	Compulsory	1 and 2
Sound and Signal 2	IS52051A	15	5	Compulsory for BSc pathway	2
C++ for Creative Practice	IS52047	15	5	Optional	1
Extended C++	IS52050	15	5	Optional	2
Creative Computing Project 2	IS52030B	30	5	Optional	1 and 2

Module Name	Module Code	Credits	Level	Module Type	Term
Interaction Design	IS52046A	15	5	Optional	1
Additional optional modules for Computing may be available from an annually approved list	Various		5		1 and 2
Optional modules to the value of 45 - 90 CATS from Music. Modules are selected from an annually approved list.	Various		5		1 and 2

Academic year of study 3

Module Name	Module Code	Credits	Level	Module Type	Term
EMCT: Music Project Prototype	MU53	15	6	Compulsory on BMus pathway	1
EMCT: Music Final Project	MU53043X	30	6	Compulsory on BMus pathway	2
EMCT: Computing Project Prototype	IS53	15	6	Compulsory on BSc pathway	1
EMCT: Computing Final Project	IS53043X	30	6	Compulsory on BSc pathway	2
BSc - Optional modules to the value of 45 – 75 CATS from Computing, and 0 – 30 CATS from Music. Modules are selected from an annually approved list.	Various		6		1 and 2
BMus - Optional modules to the value of 45 – 75 CATS from Music, and 0 – 30 CATS from Computing. Modules are selected from an annually approved list.	Various		6		1 and 2

Optional Modules Available

Students may select from the lists of optional modules below. Availability of modules is approved annually.

Indicative Music modules at level 5:

Collaborative Performance – 15 credits
Developing Performance – 15 credits
Studio and Production Skills – 15 credits
Contemporary Composition – 15 credits
Creative Jazz Studies – 30 credits
Sonic Art: Contexts and Practices – 30 credits
Global Musics – 30 credits
Music and the Moving Image – 30 credits

Indicative Computing modules at level 5:

Audio for Games and Immersive Experience Creative Embedded SystemsData Programming for Artificial Intelligence
Sound and Signal 2
Creative Computing Project 2
Interaction Design

Indicative Music modules at level 6:

Live Performance – 15 credits
Writing to Brief – 15 credits
Audiovisual Composition and its Contexts - 30 credits
Capturing Music and Practice - 30 credits
Sculpting Electronic Sound - 30 credits

MusicEducation, Outreach and Inclusion - 30 credits

ADDITIONAL MODULES

Psychological approaches to music – Psychology – 15 credits
You as your future – ICCE – 15 credits
Work placement – 15 credits

Indicative Computing modules at level 6:

C++ for Creative Practice

Extended C++

Physical Computing
Data and Machine Learning for Creative Practice
Advanced Audio-Visual Processing
Artificial Intelligence
Digital Venture Creation
Neural Networks
Expressive Game Design

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 who supports their individual progress and welfare. Personal Tutors meet with their student at least three a year either face-to-face, as part of a group and/or online. 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 Centre for Academic Language and Literacies 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

Placement opportunities

A placement year is possible between academic years 2 and 3.

Module Name	Module Code	Credits	Level	Module Type	Term
Students must register on the following module code:					
Work Placement	IS53031A	0	n/a	Compulsory	1, 2 and 3

Employability and potential career opportunities

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.

Programme-specific requirements

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 to any examination period (summer and/or spring), if, and only if, the student is on a placement during that examination period.

Tuition fee costs

Information on tuition fee costs is available at: https://www.gold.ac.uk/students/fee-support/

Specific programme costs

Not applicable.