BSc (Hons) Computer Science; BSc (Hon) Computer Science with Work Experience;

Programme Specification

Awarding Institution:
University of London (Interim Exit Awards made by Goldsmiths' College)
Teaching Institution: Goldsmiths, University of London
Final Award: BSc (Hons) Computer Science
BSc (Hons) Computer Science with Work Experience
Programme Name:
BSc Computer Science
BSc Computer Science (Artificial Intelligence and Data Science)
BSc Computer Science (Software Engineering)
BSc Computer Science (Cybersecurity)
BSc Computer Science (User Experience)
BSc Computer Science with Work Experience
BSc Computer Science (Artificial Intelligence and Data Science) with Work Experience
BSc Computer Science (Software Engineering) with Work Experience
BSc Computer Science (Cybersecurity) with Work Experience
BSc Computer Science (User Experience) with Work Experience
Total credit value for programme: 360 or 480 for with Work Experience
Name of Interim Exit Award(s):
Certificate of Higher Education in Computer Science
Diploma of Higher Education in Computer Science
Duration of Programme:
3 years full-time (BSc Computer Science and pathways)
4 years full-time (BSc Computer Science and pathways with Work Experience)
6 years part-time (BSc Computer Science and pathways)
7 year part-time (BSc Computer Science with Work Experience)
UCAS Code(s): G400
HECoS Code(s): (1000366) Computer Science
QAA Benchmark Group: Computing
FHEQ Level of Award: level 6
Programme accredited by: Not applicable
Date Programme Specification last updated/approved: February 2023
Home Department: Computing
Department(s) which will also be involved in teaching part of the programme:
Not applicable.

Programme overview

The BSc in Computer Science aims to give students a clear understanding of the process of developing software systems, the skills and technologies specific to core computing disciplines, alongside the social and creative aspects of computer science. Graduates from the programme will also be experienced in the theoretical principles that underpin computation, computer use and design. Throughout the programme students will explore industry relevant technologies currently in use with knowledge and critical abilities to migrate their skills to new developments. Graduates can expect a diverse career within the technology industry, including work as software developers, data scientists, user experience designers or technology consultants. Alternative career paths within research, education or as independent specialists would also be viable choices.

The programme has been developed to encompass the unique ethos of the Department of Computing that combines technical rigour with a creative, critical and socially engaged approach to studying computing. We have a diverse pedagogical approach that includes considerable practice based, project work in addition to technical and mathematical learning. This results in students that are more creative, and the development of computer systems that are socially and ethically informed. When designing systems students are expected to engage with user centred processes such as, prototyping, requirements gathering, testing and evaluation.

Students may choose to study for a specific pathway through the degree, tailoring their optional module choices to a specific subdiscipline. All students will start with a common core in computational thinking, software and systems design with increased specialisation as the programme continues. The objective of pathways is for students to develop a wide portfolio of understanding across computer science with specific recognition of a student's knowledge within a domain which would otherwise have been selected as optional modules. Pathways have been developed that cover the breadth of contemporary practice in computer science both in numerate theoretical areas such as cybersecurity and machine learning, and the applicable skills of systemic thinking for user experience deign:

Available pathways:

- Computer Science (Artificial Intelligence and Data science)
- Computer Science (Software Engineering)
- Computer Science (Cybersecurity)
- Computer Science (User experience)

It is central to our objectives for the programme that all graduates have the skills, critical thought, and experiences to adapt to future technologies that emerge over the coming decades. We expect all students to engage with the impact of their work and the wider role

computing technology plays in society. Ethics and social awareness are central to student's development as computer scientists. Additionally, this programme would adequately prepare students for postgraduate study. All students complete a large final year project that lays the foundations for understanding research practice, alongside final year modules that introduce state of the art concepts. Throughout their degree students will develop a portfolio of unique projects to engage potential employers, alongside opportunities to showcase work to diverse audiences.

Computer science graduates are independent, creative and reflective practitioners. While many students will follow a pathway that engages them in a contemporary sub-discipline of computer science, all graduates will be informed and guided by the core aims of the programme:

- provide a stimulating environment which enables students to develop their full academic potential by encouraging them to be creative, critical and responsive to new ideas;
- provide students with a strong conceptual and theoretical understanding of fundamental methods, theories, techniques and technologies leading to the ability to select, apply and evaluate them in the development of software-based systems;
- Understand the workings and limits of digital computer system through abstraction and logic.
- develop critical, analytical and interpersonal skills that prepares students to become autonomous professionals in industry or research, able to work independently and in groups.

Programming is a core skill of this programme. students will be expected to learn how to program and use code as a tool for exploring problems and issues central to their path of study. Throughout the degree students will develop computer software using a variety of programming approaches and techniques. This will be supported by different theories, abstract models, and implemented in different technologies. We will provide a wide range of resources for learning, that makes the learning experience engaging, exciting and, not least, effective. Upon graduation, students will be expected to have strong background in programming and good skills in at least one programming language, with relevance to the pathway of study alongside industry demand.

The content of this degree as set out in this specification approximates to a synthesis of elements from "Computer Science" as defined in the QAA Computing Subject Benchmark statement.

Programme entry requirements

Successful applicants 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 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.

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In addition, if an applicant has completed the first year in BSc Computer Science via University of London Worldwide (online), or second year in BSc Computer Science via University of London Worldwide (online), they can transfer to the subsequent year of the on campus delivery of BSc Computer Science.

Programme learning outcomes

The following outcomes describe what a typical student engaging fully in the programme modules and activities, should come to know through these modules.

Students who successfully complete the first year of the programme, and choose to exit with a **Certificate of Higher Education** in Computing will have the following knowledge and skills:

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 coursework projects.
A2	Knowledge of contemporary practice in at least one sub domain of computing	This will be taught in user experience and the web, where students will first encounter human computer interaction. Alongside domains specific to path of study such as algorithms or business enterprise.

Code	Learning outcome	Taught by the following module(s)
A3	The mathematical and computational principles underlying computing	Students will be introduced to the underlying mathematics of logic and computer architecture. Students will then go on to explore either discrete mathematics and linear algebra or statistics depending on pathway

Cognitive and thinking skills

Code	Learning outcome	Taught by the following module(s)
B1	Computational Problem solving	This will primarily be taught in the 1st programming courses. Teaching will be via problem solving and programming exercises and assessment will be via practical programming coursework. This skill will be applied across the programme's pathways
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 alongside Computing project 1. 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 1st 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 computer science 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 Computing will be able to:

Knowledge and understanding

Code	Learning outcome	Taught by the following module(s)
A1	A range of topics in computing including web technologies, multimedia, networking, data bases 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 modules including; object oriented programming and programming and databases and the web. 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 practical programming projects and continual assessment exercises, such as quizzes and worksheets.

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.

Code	Learning outcome	Taught by the following module(s)
B2	Analyse and evaluate moderately complex computing systems and technologies with reference to efficiency and correctness. Develop systems using a user centred design approach.	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.	Software Development and Design, alongside a range of specialist modules including: Dynamic Web Applications and object oriented programming. Students will do practical lab work and coursework applying these 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	Projects and other second year modules
D2	Work in teams to plan and execute a large scale project.	Projects and other modules requiring group work

Students who successfully complete the programme will demonstrate knowledge & understanding, cognitive and thinking, subject specific and transferable skills as follows:

Knowledge and understanding

Code	Learning outcome	Taught by the following module(s)
A1	Fundamental topics underlying software systems and programming. This knowledge will be sufficient for basic	• Introduction to Programming, • Computing project modules, • Software development and design,

Code	Learning outcome	Taught by the following module(s)
	application to small-scale real-world problems.	• object oriented programming, • Programming with data.
A2	Mathematical underpinnings of Computing and the use of mathematical and other forms of abstraction for modelling systems.	• Logic and Computer Architecture • Graphics 1 • Algorithms 1 • Fundamentals of computer science • Algorithms 2
A3	The process and consequent problems in moving from vague requirements to relatively tight specifications. The knowledge will be sufficient for application to small but complete software projects.	• Software development and design • Computing project modules
A4	The necessity, principles and techniques for decomposing large problems to make them comprehensible and computationally solvable. This knowledge should be sufficient for application to small but complete software projects.	This is taught in all our modules, in particular students are exposed to this objective in: • Programming modules • Project Modules • Algorithms modules
A5	A wide range of classes of problems and algorithms for their solution. Many will be learned to a basic level but some will be learned in depth.	All the level 2 and level 3 modules

Pathway Specific Objectives

Code	Pathway	Learning Outcome	Taught by the following module(s)
A7	No pathway	Methods for analysing and evaluating reasonably complex abstract models and concrete implementation	Algorithms and, partly, all the programming modules
A7	Artificial intelligence and data science	Methods for developing machine inference from divergent datasets. Understanding their applications, limitations and validity.	• AI • Machine learning • Neural networks • Data mining

Code	Pathway	Learning Outcome	Taught by the following module(s)
A7	Cybersecurity	Methods for securing a computer system and transactional data. Understanding the vulnerability of networks to attack.	• Cryptography • Network and System security • Information security
A7	User experience	Methods for designing user facing computer systems. Understanding the needs of different computational contexts for different users	• Ethical Computing • Designing for global markets Accessibility
A7	Software Engineering	Methods for the effective development of system software and utilising advanced programming techniques and data techniques.	• Databases and advanced data techniques • Dynamic web applications • Extended Object Oriented Programming

Cognitive and thinking skills

Code	Learning outcome	Taught by the following module(s)
B1	Given a specific real world problem, decide the algorithmic class in which it lies, and select and apply the specific appropriate instances of this class in specifying the solution	All the modules at level 2 and level 3
B2	Abstract and generalise complex problems into appropriate models, through decomposition, when necessary, in order to facilitate an implementation	This will be taught across the curriculum, but primarily in the core modules, all the programming modules, and the Final Year Project
B3	Analyse and evaluate abstract models and concrete implementations, in specific (limited) contexts, with reference to efficiency and correctness. Utilising an iterative user centred design approach and prototyping.	Algorithms, and all the programming modules, and the Final Year Project

Code	Learning outcome	Taught by the following module(s)
B4	View computing systems critically, both to verify that they are correct and appropriate to the user and social context of use.	Across all the programming modules, the Dynamic Web Applications and Databases and the Web, and the Final Year Project
B5	Critical awareness and analysis of own developed computing models and solutions	Final Year Project and all the practical work assignments in the other modules
B6	Propose, plan and evaluate a significant piece of project work, under supervision of an expert	Final Year Project

Subject specific skills and professional behaviours and attitudes

Code	Learning outcome	Taught by the following module(s)
C1	Turn an abstract model into a fully implemented software system, using a specific and appropriate programming language	All the programming modules and the Final Year Project module
C2	Apply specific tools and technologies in the design and implementation of a solution	All the programming modules Dynamic Web Applications and Databases and the Web, Project modules.
C3	Manage development work on a local distribute system (intranet), with reference to storage, communication and documentation	Projects, all the programming modules, Dynamic Web Applications and Databases and the Web, and the Final Year Project module
C4	Program in a specific OO programming language (e.g. Java) and know in detail some of its libraries (packages)	Some of the core and specialist programming modules, and, in most cases, the Final Year Project module
C5	Manage large collections of data	Dynamic Web Applications and Databases and the Web.
C6	Acquire and manipulate digital media to a basic level	Graphics and Optional modules
C7	Execute a significant piece of work, under supervision of an expert.	Final Year Project

Transferable skills

Code	Learning outcome	Taught by the following module(s)
D1	Have core numeracy, literacy and IT skills at graduate level	Numeracy and IT skills are core to a computer science degree and will

Code	Learning outcome	Taught by the following module(s)
		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 critically evaluate their work from a range of perspectives, including ethical, social and cultural viewpoints.	Students will be required to maintain a web page on which they will engage in reflective discussion of their work. Software Projects and final year project will have specific learning outcomes on reflection and self-evaluation.
D3	Be independent and creative workers and learners	Our degree programmes have a particular focus, unusual in computing courses, on independent and creative work, starting with 1st year programming and continuing in [Practice Module] 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 Software Projects
D5	Be able to present themselves and their work orally and in writing to a professional level	This is taught throughout the programme

How you will learn

The Department of 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 subject of computing.

The various modules of the programme provide a diverse range of topics across the scope of computer science and management. These 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 module assignments and the large-scale project component. The departments are 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 of Computing recognise that high quality assessment is a vital part of learning, particular when used formatively, and 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, business planning and group work. 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 module 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.

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

Mark	Descriptor	Specific Marking Criteria
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)	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- sat).
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	Work was not submitted or it was plagiarised

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

Mode of study

On Campus

Programme structure

The programme is divided into a series of pathways that students opt for on application alongside a BSc Computer Science without pathway with additional free choices of optional modules.

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

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

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

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

Full-time mode

Computer Science (no pathway)

Academic year of study 1

Module Name	Module Code	Credits	Level	Module Type	Term
Introduction to Programming	TBC	15	4	Compulsory	1
User Experience and the web	TBC	15	4	Compulsory	1
Logic and Computer Architecture	TBC	15	4	Compulsory	1
Computing Project 1	TBC	15	4	Compulsory	2+3
Graphics 1	TBC	15	4	Compulsory	2
Algorithms 1	TBC	15	4	Compulsory	2
Identity, Agency & Environment 1	CC5001A	15	4	Compulsory	1
Identity, Agency & Environment 2	CC50002A	15	4	Compulsory	2

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
Software Development and Design	TBC	15	5	Compulsory	1
Computing Project 2	TBC	15	5	Compulsory	2+3
Object Oriented Programming	TBC	15	5	Compulsory	1
Data Programming for Artificial Intelligence	TBC	15	5	Optional	1
Interaction Design	TBC	15	5	Optional	1
Fundamentals of Computer Science	TBC	15	5	Compulsory with direct entry	2
Algorithms 2	TBC	15	5	Compulsory	2
Networks and Operating Systems	TBC	15	5	Optional	2
Information Security	TBC	15	5	Optional	2
The Goldsmiths Elective (Chosen from a list made available annually of modules which provide an opportunity to undertake study in another discipline without pre-requisites or prior knowledge)	Various	15	5	Compulsory	1
Goldsmiths' Social Change Project	CC52	15	5	Optional	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	120	6	Compulsory	1-3

Academic year of study 3 (or year of study 4 Work placement option)

Module Name	Module Code	Credits	Level	Module Type	Term
Final Project in Computer Science	TBC	45	6	Compulsory	1+2+3
Dynamic Web Applications	TBC	15	6	Compulsory with direct entry	1
Optional modules from an annually approved list	Various	60	6	Optional	1+2

Computer Science (AI and Data Science)

Academic year of study 1

Module Name	Module Code	Credits	Level	Module Type	Term
Introduction to Programming	TBC	15	4	Compulsory	1
User Experience and the web	TBC	15	4	Compulsory	1
Logic and Computer Architecture	TBC	15	4	Compulsory	1
Computing Project 1	TBC	15	4	Compulsory	2+3
Graphics 1	TBC	15	4	Compulsory	2
Algorithms 1	TBC	15	4	Compulsory	2
Identity, Agency & Environment 1	CC5001A	15	4	Compulsory	1
Identity, Agency & Environment 2	CC5002A	15	4	Compulsory	2

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
Software Development and Design	TBC	15	5	Compulsory	1
Computing Project 2	TBC	15	5	Compulsory	2+3
Object Oriented Programming	TBC	15	5	Compulsory	1

Module Name	Module Code	Credits	Level	Module Type	Term
Data Programming for Artificial Intelligence	TBC	15	5	Compulsory	1
Fundamentals of Computer Science	TBC	15	5	Compulsory with direct entry	2
Algorithms 2	TBC	15	5	Compulsory	2
Networks and Operating Systems	TBC	15	5	Optional	2
Information Security	TBC	15	5	Optional	2
The Goldsmiths Elective (Chosen from a list made available annually of modules which provide an opportunity to undertake study in another discipline without pre-requisites or prior knowledge)	various	15	5	Compulsory	1
Goldsmiths' Social Change Project	CC52	15	5	Optional	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	120	6	Compulsory	1-3

Academic year of study 3 (or year of study 4 Work placement option)

Module Name	Module Code	Credits	Level	Module Type	Term
Final Project in Computer Science	TBC	45	6	Compulsory	1+2+3
Artificial Intelligence	TBC	15	6	Compulsory	1
Neural Networks	TBC	15	6	Compulsory	1
Machine Learning	TBC	15	6	Compulsory	2
Data Mining	TBC	15	6	Compulsory	2
Optional module from an annually approved list	Various	15	6	Optional	1

Computer Science (Software Engineering)

Academic year of study 1

Module Name	Module Code	Credits	Level	Module Type	Term
Introduction to Programming	TBC	15	4	Compulsory	1
User Experience and the Web	TBC	15	4	Compulsory	1
Logic and Computer Architecture	TBC	15	4	Compulsory	1
Computing Project 1	TBC	15	4	Compulsory	2+3
Graphics 1	TBC	15	4	Compulsory	2
Algorithms 1	TBC	15	4	Compulsory	2
Identity, Agency & Environment 1	TBC	15	4	Compulsory	1
Identity, Agency & Environment 2	TBC	15	4	Compulsory	2

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
Software Development and Design	TBC	15	5	Compulsory	1
Computing Project 2	TBC	15	5	Compulsory	2+3
Object Oriented Programming	TBC	15	5	Compulsory	1
Data Programming for Artificial Intelligence	TBC	15	5	Optional	1
Interaction design	TBC	15	5	Optional	1
Fundamentals of Computer Science	TBC	15	5	Optional	2
Algorithms 2	TBC	15	5	Compulsory	2
Networks and Operating Systems	TBC	15	5	Compulsory	2
Information Security	TBC	15	5	Optional	2
The Goldsmiths' Elective	TBC	15	5	Compulsory	1
Goldsmiths Social Change Project	TBC	15	5	Optional	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	120	6	Compulsory	1-3

Academic year of study 3 (or year of study 4 Work placement option)

Module Name	Module Code	Credits	Level	Module Type	Term
Final Project in Computer Science	TBC	45	6	Compulsory	1+2+3
Dynamic Web Applications	TBC	15	6	Compulsory with direct entry	1
Databases and advanced data techniques	TBC	15	6	Compulsory	2
Extended Object Oriented Programming	TBC	15	6	Compulsory	2
Network and System security	TBC	15	6	Compulsory	1
Optional module from an annually approved list	Various	15	6	Optional	1

Computer Science (Cybersecurity)

Academic year of study 1

Module Name	Module Code	Credits	Level	Module Type	Term
Introduction to Programming	TBC	15	4	Compulsory	1
User Experience and the web	TBC	15	4	Compulsory	1
Logic and Computer Architecture	TBC	15	4	Compulsory	1
Computing Project 1	TBC	15	4	Compulsory	2+3
Graphics 1	TBC	15	4	Compulsory	2
Algorithms 1	TBC	15	4	Compulsory	2
Identity, Agency & Environment 1	CC5001A	15	4	Compulsory	1

Module Name	Module Code	Credits	Level	Module Type	Term
Identity, Agency & Environment 2	CC5002A	15	4	Compulsory	2

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
Software Development and Design	TBC	15	5	Compulsory	1
Computing Project 2	TBC	15	5	Compulsory	2+3
Object Oriented Programming	TBC	15	5	Compulsory	1
Data Programming for Artificial Intelligence	TBC	15	5	Optional	1
Interaction design	TBC	15	5	Optional	1
Fundamentals of Computer Science	TBC	15	5	Optional	2
Algorithms 2	TBC	15	5	Optional	2
Networks and Operating Systems	TBC	15	5	Compulsory	2
Information security	TBC	15	5	Compulsory	2
The Goldsmiths Elective (Chosen from a list made available annually of modules which provide an opportunity to undertake study in another discipline without pre-requisites or prior knowledge)	TBC	15	5	Compulsory	1
Goldsmiths' Social Change Project	TBC	15	5	Optional	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	120	6	Compulsory	1-3

Academic year of study 3 (or year of study 4 Work placement option)

Module Name	Module Code	Credits	Level	Module Type	Term
Final Project in Computer Science	TBC	45	6	Compulsory	1+2+3
Dynamic Web Applications	TBC	15	6	Compulsory with direct entry	1
Network and System Security	TBC	15	6	Compulsory	1
Cryptography	TBC	15	6	Compulsory	2
Optional modules from an annually approved list	Various	30	6	Optional	1

Computer Science (User Experience)

Academic year of study 1

Module Name	Module Code	Credits	Level	Module Type	Term
Introduction to programming	TBC	15	4	Compulsory	1
User Experience and the web	TBC	15	4	Compulsory	1
Logic and Computer Architecture	TBC	15	4	Compulsory	1
Computing Project 1	TBC	15	4	Compulsory	2+3
Graphics 1	TBC	15	4	Compulsory	2
Introduction to Statistics for Business and User Experience	TBC	15	4	Compulsory	2
Identity, Agency & Environment 1	CC5001A	15	4	Compulsory	1
Identity, Agency & Environment 2	CC5002A	15	4	Compulsory	2

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
Software Development and Design	TBC	15	5	Compulsory	1
Computing Project 2	TBC	15	5	Compulsory	2+3
Object Oriented Programming	TBC	15	5	Compulsory	1
Interaction Design	TBC	15	5	Compulsory	1
Networks and Operating Systems	TBC	15	5	Compulsory	2
Information Security	TBC	15	5	Compulsory	2
The Goldsmiths Elective (Chosen from a list made available annually of modules which provide an opportunity to undertake study in another discipline without pre-requisites or prior knowledge)	Various	15	5	Compulsory	1
Goldsmiths Social Change Project	CC52	15	5	Compulsory	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	120	6	Compulsory	1-3

Academic year of study 3 (or year of study 4 Work placement option)

Module Name	Module Code	Credits	Level	Module Type	Term
Final Project in Computer Science	TBC	45	6	Compulsory	1+2+3
Designing Accessible Interfaces	TBC	15	6	Compulsory	1
Ethical Computing for the social economy	TBC	15	6	Compulsory	2

Module Name	Module Code	Credits	Level	Module Type	Term
Designing for global markets	TBC	15	6	Compulsory	2
Optional modules from an annually approved list	Various	30	6	Optional	1

Part-time mode

The part time pathway will refer to pathway specific modules, which will are shown in the full time tables for the pathways above

Module Name	Module Code	Credits	Level	Module Type	Term
Introduction to Programming	TBC	15	4	Compulsory	1
Computing Project 1	TBC	15	4	Compulsory	2+3
Introduction to Statistics for Business and User Experience. (UX pathway) Graphics 1 (other pathways)	TBC	15	4	Compulsory	2
Identity, Agency & Environment 1	CC5001A	15	4	Compulsory	1

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
User Experience and the web	TBC	15	4	Compulsory	1
Logic and Computer Architecture	TBC	15	4	Compulsory	1
Graphics 1 (UX pathway) Algorithms 1 (other pathways)	TBC	15	4	Compulsory depending on pathway	2
Identity, Agency & Environment 2	CC5002A	15	4	Compulsory	2

Academic year of study 3

Module Name	Module Code	Credits	Level	Module Type	Term
Object Oriented Programming	TBC	15	5	Compulsory	1
Interaction design or Data Programming for AI (Depending on pathway or options)	TBC	15	5	Optional or compulsory depending on pathway	1
Fundamentals of Computer Science or Networks and Operating Systems (Depending on pathway or options)	TBC	15	5	Optional or compulsory depending on pathway	2
Social Change Project or Optional module (Depending on pathway or options)	TBC	15	5	Optional or compulsory depending on pathway	2

Academic year of study 4

Module Name	Module Code	Credits	Level	Module Type	Term
Software Development and Design	TBC	15	5	Compulsory	1
Computing Project 2	TBC	15	5	Compulsory	2+3
Algorithms 2 or Information security	TBC	15	5	Optional or compulsory depending on pathway	2
Fundamentals of Computer Science or Networks and Infrastructure	TBC	15	5	Optional or compulsory depending on pathway or entry method	2
The Goldsmiths Elective (Chosen from a list made available annually of modules which provide an opportunity to undertake study in	TBC	15	5	Compulsory	1

Module Name	Module Code	Credits	Level	Module Type	Term
another discipline without pre-requisites or prior knowledge)					

Academic year of study 5 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	120	6	Compulsory	1-3

Academic year of study 5 (or year of study 6 Work placement option)

Module Name	Module Code	Credits	Level	Module Type	Term
Optional or pathway specific taught modules to a total or 60 credits	Various	60	6	Optional or compulsory depending on pathway and entry method	1+2

Academic year of study 6 (or year of study 7 Work placement option)

Module Name	Module Code	Credits	Level	Module Type	Term
Final Project in Computer Science	TBC	45	6	Compulsory	2+3
Optional module from an annually approved list	Various	15	6	Optional	1

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 three 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 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

We encourage and support students to gain work experience through embedded support in the curriculum and the support and guidance of Personal Tutors. Students on this programme have two options available to them for placements:

- Summer Placement which can be taken as a 3rd year elective module. Takes place in the Summer after 2nd year and is for a minimum of 6 weeks.
    - Assessment for this module is based on:
        - a report written by the student to be submitted before end of term 1 of year 3
        - a report from the workplace supervisor who was responsible for the student's work on the placement
- Year out Work Placement which allows a student to upgrade from a 3 year to a 4 year "with Work Experience" degree. Minimum duration of 10 months.
    - The University has a duty of care to the students, so two reports are required from the candidate and two reports from their workplace supervisor describing the progress throughout the placement

Employability and potential career opportunities

Upon completing a computer science degree graduates will be a suitable candidate for range of graduate level positions in the computing industries. Jobs such as “software engineer”, “web developer (full stack, frontend or server)”, “system analyst” and “technology consultant” will be available to all graduates. Students who have followed a pathway will find their skills in demand for roles with deeper specialism from graduation, such as “data scientist”, “cybersecurity analyst” or “user experience engineer”. Positions could be in a diverse range of employers including media industries, computer games, the health sector, transport, the financial sector, e-government, etc.

Students are supported from the start to the finish of this programme to understand the different potential career journeys they can follow and to build a portfolio of work to demonstrate their capability to gain employment or freelance work in that area. Assessment has been designed to facilitate this process through the development of transferable or soft skills listed in the section above. Regular guest lectures from industry support the development of sector knowledge and awareness of different career paths.

The Department's External Advisory Board ensures relevance of all our programmes to the current and future needs of employers. All programmes are designed in consultation with employers to make sure you develop transferable skills to improve your career opportunities and you will be applying your skills to real-world problems through live project briefs and group projects. The board and other employers attend showcase events where you can present your ideas, get feedback and build important connections.

We have dedicated employability resource within the department to build employer relations and manage additional initiatives to support your future career opportunities, including regular communication of external opportunities for mentoring and work experience and an annual Career week (a focussed week of career support every June in the department where you can access alumni panels by programme and a range of industry talks).

Tuition fee costs

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

Specific programme costs

Not applicable