

Computer Science

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

MSci Computer Science

Programme Name:

BSc/MSci Computer Science

BSc/MSci Computer Science (Artificial Intelligence and Data Science)

BSc Computer Science (Software Engineering)

BSc Computer Science (Cybersecurity)

BSc/MSci Computer Science (User Experience)

BSc/MSci Computer Science with Work Experience

BSc/MSci 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/MSci Computer Science (User Experience) with Work Experience

Total credit value for programme: 360

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)

4 years full-time (MSci Computer Science)

5 years full-time (MSci Computer Science with Work Experience)

6 years part-time (BSc Computer Science and pathways)

7 year part-time (BSc Computer Science with Work Experience)

8 years part-time (MSci Computer Science)
9 years part-time (MSci Computer Science with Work Experience)

UCAS Code(s): G400

HECoS Code(s): (1000366) Computer Science

QAA Benchmark Group: Computing

FHEQ Level of Award:

Programme accredited by: Not applicable

Date Programme Specification last updated/approved: October 2022

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 design:

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.

Applications cannot be directly made for admission to the MSci. Admission to the MSci year is only offered by progression from Level 6 of the BSc and is dependent on achieving an equivalent of a 2.1 or above at Levels 5 and 6 of the programme.

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.
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

Code	Learning outcome	Taught by the following module(s)
B2	Analyse, to a basic level, the requirements of computing software from a number of perspectives (technical, creative, user-centred, social and business) and design a basic software solution based on this analysis	This will be taught in the first year specialist modules 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.	A range of modules including; object oriented programming and programming and databases and the web. Teaching will be via lectures

Code	Learning outcome	Taught by the following module(s)
	Knowledge of most will be sufficient to apply to moderately complex application; some will be studied in greater depth.	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.
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

Code	Learning outcome	Taught by the following module(s)
		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 **BSc** or **MSci** 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 application to small-scale real-world problems.	<ul style="list-style-type: none"> • Introduction to Programming, • Computing project modules, • Software development and design, • object oriented programming, • Programming with data.
A2	Mathematical underpinnings of Computing and the use of mathematical and other forms of abstraction for modelling systems.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Software development and design • Computing project modules

Code	Learning outcome	Taught by the following module(s)
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: <ul style="list-style-type: none"> • 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
A6	Analyse advanced computer science arguments and synthesise them into coherent discussion (MSci only)	Taught by level 7 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.	<ul style="list-style-type: none"> • AI • Machine learning • Neural networks • Data mining
A7	Cybersecurity	Methods for securing a computer system and transactional data. Understanding the vulnerability of networks to attack.	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Databases and advanced data techniques • Dynamic web applications • Extended Object Oriented Programming
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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
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

Code	Learning outcome	Taught by the following module(s)
B7	Implement programs based on advanced algorithms found in research papers (MSci only)	Taught in Advanced Topics in Computing 2.

Subject specific skills and professional behaviours and attitudes

Code	Learning outcome	Taught by the following module(s)
C1	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
C8	Read and understand research papers and be able to write discussions about them (MSci only)	MSci Project and other level 7 options.
C9	Conduct an independent research level project	MSci 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
D6	Construct synoptic arguments about advanced concepts (MSci only)	This is taught throughout the MSci modules

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.

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	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		15	5	Compulsory	1
Computing Project 2		15	5	Compulsory	2+3
Object Oriented Programming		15	5	Compulsory	1
Data Programming for Artificial Intelligence		15	5	Optional	1
Interaction design		15	5	Optional	1

Module Name	Module Code	Credits	Level	Module Type	Term
Fundamentals of Computer Science		15	5	Compulsory with direct entry	2
Algorithms 2		15	5	Compulsory	2
Networks and Operating Systems		15	5	Optional	2
Information security		15	5	Optional	2
The Goldsmiths Elective		15	5	Compulsory	1
Goldsmiths' Social Change Project		15	5	Optional	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	0	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		45	6	Compulsory	1+2+3
Dynamic Web Applications		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		15	4	Compulsory	1
User Experience and the web		15	4	Compulsory	1
Logic and Computer Architecture		15	4	Compulsory	1
Computing Project 1		15	4	Compulsory	2+3
Graphics 1		15	4	Compulsory	2
Algorithms 1		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		15	5	Compulsory	1
Computing Project 2		15	5	Compulsory	2+3
Object Oriented Programming		15	5	Compulsory	1
Data Programming for Artificial Intelligence		15	5	Compulsory	1
Fundamentals of Computer Science		15	5	Compulsory with direct entry	2
Algorithms 2		15	5	Compulsory	2
Networks and Operating Systems		15	5	Optional	2
Information security		15	5	Optional	2
The Goldsmiths Elective		15	5	Compulsory	1

Module Name	Module Code	Credits	Level	Module Type	Term
Goldsmiths' Social Change Project		15	5	Optional	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	0	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		45	6	Compulsory	1+2+3
Artificial Intelligence		15	6	Compulsory	1
Neural Networks		15	6	Compulsory	1
Machine Learning		15	6	Compulsory	2
Data Mining		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		15	4	Compulsory	1
User Experience and the web		15	4	Compulsory	1
Logic and Computer Architecture		15	4	Compulsory	1
Computing Project 1		15	4	Compulsory	2+3
Graphics 1		15	4	Compulsory	2
Algorithms 1		15	4	Compulsory	2

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

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	0	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		45	6	Compulsory	1+2+3

Module Name	Module Code	Credits	Level	Module Type	Term
Dynamic Web Applications		15	6	Compulsory with direct entry	1
Databases and advanced data techniques		15	6	Compulsory	1
Extended Object Oriented Programming		15	6	Compulsory	2
Network and System security		15	6	Compulsory	2
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		15	4	Compulsory	1
User Experience and the web		15	4	Compulsory	1
Logic and Computer Architecture		15	4	Compulsory	1
Computing Project 1		15	4	Compulsory	2+3
Graphics 1		15	4	Compulsory	2
Algorithms 1		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		15	5	Compulsory	1
Computing Project 2		15	5	Compulsory	2+3
Object Oriented Programming		15	5	Compulsory	1
Data Programming for Artificial Intelligence		15	5	Optional	1
Interaction design		15	5	Optional	1
Fundamentals of Computer Science		15	5	Optional	2
Algorithms 2		15	5	Optional	2
Networks and Operating Systems		15	5	Compulsory	2
Information security		15	5	Compulsory	2
The Goldsmiths Elective		15	5	Compulsory	1
Goldsmiths' Social Change Project		15	5	Optional	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	0	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		45	6	Compulsory	1+2+3
Dynamic Web Applications		15	6	Compulsory with direct entry	1
Network and System Security		15	6	Compulsory	2
Cryptography		15	6	Compulsory	2

Module Name	Module Code	Credits	Level	Module Type	Term
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		15	4	Compulsory	1
User Experience and the web		15	4	Compulsory	1
Logic and Computer Architecture		15	4	Compulsory	1
Computing Project 1		15	4	Compulsory	2+3
Graphics 1		15	4	Optional	2
Algorithms 1		15	4	Optional	2
Introduction to Statistics for Business and User Experience		15	4	Compulsory	2
Business Enterprise in the digital era		15	4	Optional	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		15	5	Compulsory	1
Computing Project 2		15	5	Compulsory	2+3
Object Oriented Programming		15	5	Compulsory	1
Interaction design		15	5	Compulsory	1

Module Name	Module Code	Credits	Level	Module Type	Term
Networks and Operating Systems		15	5	Compulsory	2
Information security		15	5	Compulsory	2
The Goldsmiths' Elective		15	5	Compulsory	1
Goldsmiths Social Change Project		15	5	Compulsory	2

Academic year of study 3 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	0	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		45	6	Compulsory	1+2+3
Designing Accessible Interfaces		15	6	Compulsory	1
Ethical Computing for the social economy		15	6	Compulsory	2
Designing for global markets		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 be shown in the full time tables for the pathways above

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

Academic year of study 2

Module Name	Module Code	Credits	Level	Module Type	Term
User Experience and the web		15	4	Compulsory	1
Logic and Computer Architecture		15	4	Compulsory	1
, Business Enterprise in the digital era, Algorithms 1 or Graphics 1. (UX pathway)		15	4	Optional or compulsory depending on pathway	2
Algorithms 1 (other pathways)					
Identity, Agency & Environment 2	TBC	15	4	Compulsory	2

Academic year of study 3

Module Name	Module Code	Credits	Level	Module Type	Term
Object Oriented Programming		15	5	Compulsory	1
Interaction design or Data Programming for AI		15	5	Optional or compulsory	1

Module Name	Module Code	Credits	Level	Module Type	Term
(Depending on pathway or options)				depending on pathway	
Fundamentals of Computer Science or Networks and Operating Systems (Depending on pathway or options)		15	5	Optional or compulsory depending on pathway	2
Social Change Project or Optional module (Depending on pathway or options)		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		15	5	Compulsory	1
Computing Project 2		15	5	Compulsory	2+3
Algorithms 2 or Information security		15	5	Optional or compulsory depending on pathway	2
Fundamentals of Computer Science or Networks and Infrastructure		15	5	Optional or compulsory depending on pathway or entry method	2
The Goldsmiths' Elective		15	5	Compulsory	1

Academic year of study 5 (Work placement option)

Module Title	Module Code	Credits	Level	Module Status	Term
Work Placement	IS53031A	0	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 of 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		45	6	Compulsory	2+3
Optional module from an annually approved list	Various	15	6	Optional	1

**Academic year of study 7 (or year of study 8 Work placement option):
MSci (all pathways)**

Module Name	Module Code	Credits	Level	Module Type	Term
Optional taught modules from the corresponding MSci pathway	Various	60	7	Optional	1+2

**Academic year of study 8 (or year of study 9 Work placement option):
MSci (all pathways)**

Module Name	Module Code	Credits	Level	Module Type	Term
Final Project from the corresponding MSc pathway		60	7	Compulsory	1+2+3

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.
 - This is not a credit bearing module, but 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).

Programme-specific requirements

In order to progress to the MSci year, students must achieve the equivalent of a 2.1 or above in the first 3 years of the programme.

Tuition fee costs

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

Specific programme costs

Not applicable