Year of entry: 2022/23

Programme Specification

1	**Awarding body**	University of London					
2	**Teaching Institution**	**Birkbeck College**					
3	**Programme Title(s)**	**MSc Computer Science**					
4	**Programme Code(s)**	TMSCOSCI_C					
5	**UCAS code**	N/A					
6	**Home Department**	Computer Science and Information Systems					
7	**Exit Award(s)**	PG Dip, PG Cert					
8	**Duration of Study** (number of years)	1 year FT, 2 years PT					
9	**Mode of Study**	FT	x	PT	x	DL	
10	**Level of Award (FHEQ)**	7					
11	**Other teaching depts or institution**	N/A					
12	**Professional, Statutory Regulatory Body(PSRB) details**	The programme is accredited as partially meeting the educational requirement for Chartered IT Professional registration by the British Computer Society (http://www.bcs.org/).					
13	**QAA Benchmark Group**	Computing					

14	**Programme Rationale & Aims**
	The programme provides an intensive course in computing for graduates of other subjects. As well as gaining a broad knowledge of the subject, they acquire practical skills and have the opportunity to investigate certain areas of current research more deeply. For students who are new to the subject, it provides a foundation for a career in IT; for those already working in IT, it provides an opportunity to broaden their knowledge and update their skills while obtaining a formal qualification. Holders of the MSc will have demonstrated a systematic understanding and a critical awareness, much of it at the forefront of the discipline, a comprehensive and practical understanding of applicable techniques, originality in the application of knowledge, the ability to evaluate current research and methodologies, and the independent learning ability required for continuing professional development.

15	**Entry Criteria**
	A 2nd class honours degree from a British university, or equivalent, in any subject other than single-honours Computer Science. Applicants with less than the required level of academic qualification may be considered if they have significant experience in the IT industry.

16	**Learning Outcomes**
	Subject Specific: a knowledge of programming (S1), mathematical and algorithmic foundations of computing (S2), information systems design and social implications (S3), database design and management (S4), software engineering and design (S5), computer architecture and operating systems (S6), networks (S7), internet (S8), content-based retrieval of data (S9), an appreciation of some research topics (S10). Intellectual: the ability to develop an algorithm to carry out a specified task and to convert this into an executable program (I1), to debug a program (I2), to develop designs in databases and information systems (I3), an appreciation of the social implications of the use of computers (I4), to plan and carry out a project spanning several months (I5), to perform abstract thinking and to exhibit abstraction skills (I6). Practical: the ability to write programs in Java (P1), and other object-oriented languages (P2), to use the SQL data-manipulation language (P3), to create and document a design using UML (P4), to use a coherent information system development process (P5). Personal and Social: the ability to demonstrate self-direction and originality in tackling and solving problems (PS1), to act autonomously in planning and implementing tasks at a professional level (PS2), to conduct a critical appraisal of material synthesized from research papers (PS3), to communicate their conclusions clearly to specialist and non-specialist audiences (PS4), to deal with complex issues systematically and creatively (PS5), to advance further their knowledge, skills and understanding (PS6).

17	**Learning, teaching and assessment methods**
	Formal lectures are the principal teaching method, but these frequently incorporate practical sessions, for example in programming, and also group exercises carried out in class. There is a large element of practical coursework which the students carry out in their own time; some of these coursework assignments are carried out in groups. Each student also undertakes an individual project of their own devising (which includes background research) and is supervised by a member of staff. The project provides an opportunity for students to investigate an aspect of the subject that particularly interests them and to build a larger and more complex system than they encounter in the assignments. The programme is taught in six 15-credit, one 30-credit and one 60-credit (MSc project) modules.

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18	**Programme Description**
	For award of the MSc students need 180 credits. Students take one compulsory 30-credit taught module, five compulsory 15-credit taught modules, and one optional taught 15 credit module from a range of approved modules. Additionally, students do a 60-credit project module.

19	**Programme Structure**			
Full Time programme - 1 year.				
Level	**Module Code**	**Module Title**	**Credits**	**Status***
7	BUCI033S7	Programming in Java	30	Compulsory
7	COIY058H7	Fundamentals of Computing	15	Compulsory
7	COIY059H7	Information Systems	15	Compulsory
7	COIY060H7	Computer Systems	15	Compulsory
7	COIY061H7	Data and Knowledge Management	15	Compulsory
7	COIY062H7	Software Design and Programming	15	Compulsory
7		One 15 credit option from range of approved modules within the field	15	Optional
7	COIY065D7	MSc CS project	60	Core
Part Time programme – 2 years				
Year 1				
Level	**Module Code**	**Module Title**	**Credits**	**Status**
7	BUCI033S7	Programming in Java	30	Compulsory
7	COIY058H7	Fundamentals of Computing	15	Compulsory
7	COIY059H7	Information Systems	15	Compulsory
7	COIY060H7	Computer Systems	15	Compulsory
Year 2				
Level	**Module Code**	**Module Title**	**Credits**	**Status**
7	COIY061H7	Data and Knowledge Management	15	compulsory
7	COIY062H7	Software Design and Programming	15	compulsory
7		One 15 credit option from range of approved modules within the field	15	optional
7	COIY065D7	MSc CS project	60	Core
Option Modules List				
7	COIY063H7	Internet and Web Technologies (IWT)	15	optional
7	BUCI040H7	Information and Network Security (INS)	15	optional
7	COIY064H7	Natural Language Processing and Information Retrieval (NLP)	15	optional
7	COIY025H7	Advances in Data Management (ADM)	15	Optional
7	BUCI029H7	Cloud Computing (CC)	15	Optional
7	BUCI063H7	Principles of Programming I	15	Optional

Status*: *CORE – Module must be taken and passed by student; COMPULSORY – Module must be taken, mark can be reviewed at sub-exam board; OPTIONAL – Student can choose to take this module*

20	**Additional Programme-Specific Information**
	First year part-time students must normally gain at least 45 credits in order to proceed to the second year of study. The project is undertaken during the Spring (project proposal) and Summer (project report) terms (of the second year for part-time students), with the project report submitted in September. The project report is examined in the Autumn.

20	**Programme Director**	Vladislav Ryzhikov
21	**Start Date** ***(term/year)***	Prior to 2008/09
22	**Date approved by TQEC**	Prior to 2008/09
23	**Date approved by Academic Board**	Prior to 2008/09
24	**Date(s) updated/amended**	14 January 2022