Queen Mary
University of London

Programme Specification

Awarding Body/Institution	Queen Mary, University of London
Teaching Institution	Queen Mary, University of London
Name of Final Award and Programme Title	Bachelor of Science (BSc) Computer Science with Business Management
Name of Interim Award(s)	Bachelor of Science (BSc)
Duration of Study / Period of Registration	Three years
QM Programme Code / UCAS Code(s)	G4N1
QAA Benchmark Group	Computing and General Business Management
FHEQ Level of Award	Level 6
Programme Accredited by	N/A
Date Programme Specification Approved	
Responsible School / Institute	School of Electronic Engineering & Computer Science

Schools which will also be involved in teaching part of the programme

School of Business & Management

Institution(s) other than Queen Mary that will provide some teaching for the programme

N/A

Programme Outline

This programme focuses on computer science while providing an understanding of business management. The programme includes core computer science and business management modules such as the fundamentals of management, marketing and economics for business. You will gain practical skills and experience in the use and applications of information technology in business. The programme develops high levels of competence and demonstrable skills in core computer science areas such as programming and a greater appreciation of the context in which information technology is used.

Aims of the Programme

This programme aims to combine skills in programming and program design with knowledge of business and financial management, an important IT application context. The first two years of the programme has 10 units of Computer Science and 6 units of Business Management:
The Computer Science element of the programme aims to build practical skills in software engineering. These start with competence in programming and go on to develop systems analysis and program and database design. Students also gain

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understanding of computer systems

The Business Management element of the programme aims to develop critical analytical skills and introduce students to the core business subjects. In the Accounting elements students will gain competence in handling and evaluating financial data and be able to appreciate the role of finance and management information systems in business environments.

The aims of the final year are to allow a student to explore more specialised applications and to demonstrate and consolidate the skills gained in a project. A project should normally include substantial work in either a) design and implementation of a computer systems or b) analysis of an IT application problem and specification of a proposed solution. Many projects will include work in both these areas; however, by agreement with the project supervisor the scope of a project may be varied.

What Will You Be Expected to Achieve?

The programme includes threads in software engineering, computer systems, software applications, business management. The learning outcomes are given for each thread in the programme and also for the transferable skills gained.

Software Engineering
• knowledge of the basic theory of programming languages and the ability to write basic programs
• knowledge of fundamental algorithms and the notion of complexity
• experience in applying a range of methods in the development of large-scale software systems
• knowledge of the software life-cycle, software design methodologies and software development tools
• understanding of database principles and techniques and they role they play in information management

Computer Systems
• knowledge of computer system components and architecture
• understanding of the principles of operating systems and networks and the techniques required for their implementation

Applications
• knowledge of some advanced application techniques (depending on the options taken) and experience with using them in practice

Business Management
• fundamentals of management,
• strategy, marketing and organisational behaviour.
• appreciation of the context in which information technology is used

General Knowledge and Transferable Skills
• experience in problem-solving
• work effectively as a member of a team
• knowledge of project management skills
• appreciate the presence of risk in IT practice
• produce well-written reports.

Academic Content:	
A 1	
A 2	
A 3	

Disciplinary Skills - able to:	
B 1	

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B 2	
B 3	

Attributes:	
C 1	
C 2	
C 3	

How Will You Learn?

Taught courses involve lectures, problem-solving courseworks and practical sessions or seminars. Lectures are used to introduce principles, methods and techniques and, through the use of examples, to illustrate how they can be applied in practice. Courseworks allow students to develop their own skills in design and problem-solving and gain extensive practical experience of building computer systems using a wide range of tools and techniques. On Computer Science courses, students mostly 'learn through doing' and can expect to spend far longer in the teaching laboratory than in lectures.
Business Management seminars allow the testing of comprehension and the evaluation of critical analyses, together with opportunities for oral presentations and interpretations of cases.
Each year of study contains small group teaching sessions to encourage the development of reflective, insightful design and written and verbal communication skills. In year 1 computer science tutorials help students adapt to independent study and develop their study and communication skills through a series of research and presentation exercises. The Software Engineering team project in year 2. In the final year, individual projects include weekly consultancy meetings where students report on their progress, discuss their designs and plan their future work. These reinforce and develop the ability to communicate technical ideas clearly and effectively.

How Will You Be Assessed?

Almost all taught modules are assessed through a written examination and practical courseworks. Some modules also include in-term tests as a component in assessment. The first year programming courses are assessed by a combination of coursework and in-term test or online examinations, held under exam conditions. Projects are examined on the basis of a written report and formal oral presentation.

How is the Programme Structured?

Programme structure(s) and requirements, levels and courses
SEMESTER 1
ECS401U Procedural Programming
ECS402U Professional Applications
ECS404U Computer Systems and Networks
BUS001 Fundamentals of Management

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SEMESTER 2
ECS414U Object Oriented Programming
ECS417U Fundamentals of Web Technology
ECS419U Information Systems Analysis
BUS017 Economics for Business

Sem 1 and 2: ECS422U Skills for electronic Engineering and Computer Science (not credit bearing module)

SEMESTER 3
ECS505U Software Engineering
ECS509U Probability and Matrices
ECS524U Internet Protocols and Applications
BUS021 Financial Accounting

SEMESTER 4
ECS506U Software Engineering Project
ECS519U Database Systems
BUS011 Marketing
Plus one from:
ECS518U Operating Systems
ECS522U Graphical User Interfaces

SEMESTER 5
ECS635U Project (30 credits)
BUS204 Strategy
Plus two from:
ECS604U Entrepreneurship in Information Technology
ECS607U Data Mining
ECS610U Computer Graphics
ECS612U Interaction Design
ECS640U Big Data Processing
ECS650U Semi-Structured Data and Advanced Data Modelling
ECS651U Computability, Complexity and Algorithms

SEMESTER 6
ECS635U Project (continued)
BUS324 The Management of Human Resources
Plus two from:
ECS608U Distributed Systems and Security
ECS624U C++ for Image Processing
ECS629U Artificial Intelligence
ECS637U Digital Media and Social Networks
ECS639U Web Programming
ECS641U Communicating and Teaching Computing
ECS647U Bayesian Decision and Risk Analysis

Progression Criteria
To progress from one developmental year to the next, a student must meet any
programme and pathway requirements and take and pass modules as follows:
i. foundation year to developmental year one: take modules to the value of 120 credits
and pass modules to the value of 90 credits;
ii. developmental year one to developmental year two: take modules to a value of 120
credits and pass modules (excluding modules at Level 3) to the value of 90 credits
from developmental year one;
iii. developmental year two to developmental year three: take modules to the value of
120 credits and pass modules (excluding module

Academic Year of Study 1

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
			4	Core		

What Are the Entry Requirements?

The entry requirements will be 300 points A level grades BBB. Minimum Grade B in GCSE Mathematics.

Good English language proficiency corresponding to B2 level. Proof through documentation referring to IELTS score of 6.5 or 580 (written), or TOEFL score of 237.

How Do We Listen and Act on Your Feedback?

The Staff-Student Liaison Committee provides a formal means of communication and discussion between Schools and its students. The committee consists of student representatives from each year in the school/institute together with appropriate representation from staff within the school/institute. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. Staff-Student Liaison Committees meet regularly throughout the year.

Each school operates a Learning and Teaching Committee, or equivalent, which advises the School/Institute Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in this Committee's work in a number of ways, such as through student membership, or consideration of student surveys.

All schools operate an Annual Programme Review of their taught undergraduate and postgraduate provision. The process is normally organised at a School-level basis with the Head of School, or equivalent, responsible for the completion of the school's Annual Programme Reviews. Schools/institutes are required to produce a separate Annual Programme Review for undergraduate programmes and for postgraduate taught programmes using the relevant Undergraduate or Postgraduate Annual Programme Review pro-forma. Students' views are considered in this process through analysis of the NSS and module evaluations.

Academic Support

Each student is allocated a personal adviser in their first year and the adviser remains with them until they complete their programme.

Programme-specific Rules and Facts

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Specific Support for Disabled Students

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:
• Finding out if you have a specific learning difficulty like dyslexia
• Applying for funding through the Disabled Students' Allowance (DSA)
• Arranging DSA assessments of need
• Special arrangements in examinations
• Accessing loaned equipment (e.g. digital recorders)
• Specialist one-to-one "study skills" tuition
• Ensuring access to course materials in alternative formats (e.g. Braille)
• Providing educational support workers (e.g. note-takers, readers, library assistants)
• Mentoring support for students with mental health issues and conditions on the autistic spectrum.

Links With Employers, Placement Opportunities and Transferable Skills

The School maintains many links with industry and potential employers, which inform the development of the curriculum.
• The Industrial Panel is a formal forum for feedback from employers on the Department's programmes of study.
• Employers give talks on the first year 'Computers in Society' course unit.
• There is a programme of careers talks for final year students.
• A proportion of final year projects have an industry sponsor.
• All the Research Groups have industry links, in three cases including spin-off companies.
• Many staff carry out consultancy work in industry.

Programme Specification Approval

Person completing Programme Specification	Dr. John Schormans
Person responsible for management of programme	Ms. Jane Reid
Date Programme Specification produced/amended by School Learning and Teaching Committee	12 Feb 2016
Date Programme Specification approved by Taught Programmes Board	

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