PROGRAMME SPECIFICATION

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<tr>
<th>Awarding body/institution:</th>
<th>Queen Mary, University of London</th>
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<td>Teaching institution (if different from above):</td>
<td>Queen Mary, University of London</td>
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<tr>
<td>Name of the final award and Programme title:</td>
<td>MSc in Computer Science by Research</td>
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| Duration of Study/Period of Registration | 12 months (full-time)  
                                        24 months (part-time) |
| UCAS code: | |
| QAA Benchmark Group | Computer Science |
| Academic Department/s involved in programme delivery | School of Electronic Engineering & Computer Science |

If accredited by a professional/statutory body, please give the name, date of last accreditation visit, approximate date of next visit and details of exemptions that will be given to QMUL graduates. | N/A |

Criteria for admission to the programme

Applicants should normally possess a good Honours degree (first or upper-second class honours) with a substantial computer science component (at least half) or equivalent industrial experience. Good programming skills are required for
undertaking the practical elements of the course. Applicants must also supply a brief research proposal outlining the areas of interest, for consideration.

**Aims of the programme**

The programme aims to expose students to a challenging research environment, and to allow them to develop demonstrable technical and research skills through an extensive research project. In addition it will develop skills in communications (written, verbal), planning and research, relevant to both industrial and academic practice.

The programme provides opportunities to develop further research and technical skills and to be able to show a demonstrable level of independence greater than that provided in a purely taught course structure. It develops solid theoretical and practical research competences in the student's chosen field of study and an additional degree qualification, supporting his/her employability. Successful completion of the course will often provide a route to further study at doctoral level or for a research and development position in industry.

**Learning outcomes for the programme**

- An understanding of the fundamental technical issues within the area of study, e.g. computer vision
- An ability to assess critically and apply advanced techniques in area of study, demonstrated through successful completion of a cognate research project
- An understanding of the issues surrounding writing a journal paper for publication in the area of study
- An understanding of the issues surrounding presenting a conference paper in the area of study
- An understanding of the issues surrounding time management and finances in sponsored research projects

**Teaching, learning and assessment strategies**

- Research Methods I and Research Methods II are delivered by lectures, group work, seminars and lectures by external speakers.
- Two appropriate selected taught courses with assessed coursework and laboratory sessions in line with individual programme requirements.
- Individual 120 credit research project, with weekly supervisions.
- Project report and viva examination.

**Programme structure(s) and requirements, levels and modules**

Students must undertake AMCM025 Dissertation Project. They select four 15 credit taught courses. All modules are Level 7.

**Semester A**
- AMCM056 Research Methods I
- AMCM058 Advanced Database Systems & Technology
- AMCM048 Advanced Program Design
- AMCM333 Algorithms & Complexity
- AMCM053 C++ for Image Processing
- AMCM059 Design for Human Interaction
- AMCM054 Distributed Systems & Security
- AMCM046 Foundations for Information Retrieval
- AMCM067 Information Technology Programming (2 c. u.)
- AMCM234 Software Engineering Theory
- AMCM235 Software Engineering (2 c.u.) (continued in next semester)
- AMCM310 Systems Analysis
- AMCM043 Structured Documents and XML
- AMCM070 Advanced Research Methods

**Semester B**
- AMCM057 Research Methods II
- AMCM326 Artificial Intelligence
- AMCM068 Business Information Strategy
- AMCM061 Computational Genomics
- AMCM225 Database Systems
- AMCM235 Software Engineering (2 c.u.) (continued)
- AMCM052 Entrepreneurship in Information Technology
- AMCM224 Graphical User Interfaces
- AMCM306 High Performance Computing
- AMCM318 Interaction Design
- AMCM016 Interactive System Design
- AMCM055 Software Risk Assessment
- AMCM049 Specification and Verification
- AMCM047 Special Topics in Information Retrieval
- AMCM051 The Semantic Web

**Semester C**
- AMCM025 Dissertation Project
Quality assurance mechanism (please include details of: SSLC meetings, student feedback mechanisms, personal tutor arrangements, programme induction, programme review and monitoring.)

There is a programme induction in the core module Research Methods I. Students on the course will be represented by student members of the Computer Science SSLC. Student feedback and evaluations will be obtained through the usual channels. Each student will have a project supervisor.

Employers Links
Please provide details of any links with employers e.g.
• Details of advisory panels that include current or potential employers;
• Organisations that regularly employ graduates from this programme and the roles that graduates undertake.
• Student prizes donated by organisations that may offer employment to graduates from this programme.

If there are no links with employers consider the learning outcomes and transferable skills and explain how these might be used to inform employers about the qualities and skills a graduate from this programme might be expected to have.

The programme will develop skills in communications (written, verbal), planning and research which is relevant to both industrial practice. It also provides opportunities to develop solid theoretical and practical research competences in the student’s chosen field of study and an additional degree qualification, supporting his/her employability.

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<tr>
<th>Person Completing Programme Specification</th>
<th>Malcolm Smith</th>
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<tbody>
<tr>
<td>Person responsible for management of programme</td>
<td>Professor Pat Healey</td>
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<tr>
<td>Date programme specification agreed by Department or teaching and learning committee</td>
<td>2004</td>
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<tr>
<td>Date of approval by Faculty Board/SMD Education Board</td>
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<td>Date of update/amendment</td>
<td>2011</td>
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