Programme Title: MSc Computer Science by Research

Programme Specification

Awarding Body/Institution: Queen Mary, University of London
Teaching Institution: Queen Mary, University of London
Name of Final Award and Programme Title: MSc Computer Science by Research
Name of Interim Award(s): PGCert and PGDip
Duration of Study / Period of Registration: 12 Months FT/ 24 Months PT
QM Programme Code / UCAS Code(s): G4Q1/G4Q2
QAA Benchmark Group: 
FHEQ Level of Award: Level 7
Programme Accredited by: 
Date Programme Specification Approved: 
Responsible School / Institute: EECS

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

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

Programme Outline

Our MSc in Computer Science by Research involves an extended (one-year) individual research project carried out as part of one of our established research groups, combined with selected taught modules.

This programme offers you the chance to undertake an advanced Masters programme through an extended research project. The programme is suitable for outstanding students who have an interest in advanced research-based study in one of our research specialisms: Computer Vision; Information Retrieval; Interaction, Media and Communication; Risk Assessment and Decision Analysis; Computer Science Theory.

You will join one of our research groups, taking four selected taught modules and completing an extended research project. You will have the opportunity to develop further research and technical skills and to be able to demonstrate a level of independence that is greater than developed on a purely taught programme.

The MSc by Research programme will give you solid theoretical and practical research competences in your chosen field of study and will enhance your employability. Successful completion of the programme may also provide a route to further study at doctoral level or for a research and development position in industry.
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.

What Will You Be Expected to Achieve?

- 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

Academic Content:

| A1  | Theories, principles and techniques on research in Computer Science |
| A2  | Approaches to critical enqiry |
| A3  | Research project planning and monitoring |
| A4  | Evaluation of alternative research methods |
| A5  | Evaluation of alternative project trajectories |

Disciplinary Skills - able to:

| B1  | Develop a clearly defined, focused research question |
| B2  | Sustain a focused approach to a complex research problem |
| B3  | Choose and apply appropriate research methods |
| B4  | Critically evaluate alternative solutions |
| B5  | Plan, activate and review an appropriate research project |
| B6  | Critically reflect on their own performance in research projects and apply to future projects |
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Attributes:

| C1 | Integrate scholarship, research and professional activities within the context of a Computer Science research project in a developing professional career |
| C2 | Evaluate their practice and engage in continuing professional development |

How Will You Learn?

- 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.

How Will You Be Assessed?

The assessment of taught courses takes place through a written examination and coursework.

The project is examined on the basis of a written report, a formal oral presentation, and where appropriate, a demonstration of the software developed by the student.

How is the Programme Structured?

Students must undertake ECS754P Dissertation Project. This is worth 120 credits. They select four 15 credit taught courses. All modules are Level 7.
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<th>Module Title</th>
<th>Module Code</th>
<th>Credits</th>
<th>Level</th>
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What Are the Entry Requirements?

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.

For international students, English Language skills are required to a recognised standard. The minimum requirement is: IELTS 6.5, TOEFL (CBT) 242 or TOEFL (written test) 580. For students not quite meeting this requirement (e.g. IELTS 6.0), enrolling on a one month pre-sessional English Language course is required. These conditions are higher than standard College conditions.

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

All students are assigned an academic advisor during induction week. The advisors role is to council students on their academic development including module selection. The School has one Senior Tutor for Postgraduate students who is responsible for the pastoral care of students.
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Programme-specific Rules and Facts

To obtain an MSc a student must gain passes in two of the two taught modules taken and must pass the project. The pass mark is 50% for individual modules, but compensation is allowed for failure of up to two modules provided the mark in the module is not less than 30% and the candidate’s average over all the taught courses is not less than 50%.

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 programme is scrutinised by a School Industrial Advisory Panel. The Panel meets annually to discuss research and teaching matters pertinent to our field.

Programme Specification Approval

| Person completing Programme Specification | Tony Stockman |
| Person responsible for management of programme | Tony Stockman |
| Date Programme Specification produced/amended by School Learning and Teaching Committee | |
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Date Programme Specification approved by Taught Programmes Board

Queen Mary
University of London