PROGRAMME SPECIFICATION

<table>
<thead>
<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>
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<tr>
<td>Name of the final award and Programme title:</td>
<td>MSc Telecommunications in the Business Environment (Applications Pathway)</td>
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<tr>
<td>Duration of Study/Period of Registration</td>
<td>One Year</td>
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<td>UCAS code:</td>
<td>H6Y5 Full Time</td>
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<tr>
<td>QAA Benchmark Group</td>
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<tr>
<td>Academic Department/s involved in programme delivery</td>
<td>Electronic Engineering &amp; Computer Science</td>
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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**

The entry requirements are a first or upper-second class degree in Electronic Engineering, Computer Science, Mathematics or a related discipline. Applicants with
unrelated degrees will be considered if there is evidence of significant relevant industrial experience. Applicants with lower-second class degrees may be considered if the undergraduate degree specialised in the relevant subjects.

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.

Aims of the programme

The overall aims are:
To provide the students with the background and skills needed for careers in related technologies.

To provide an in-depth understanding of telecommunication systems

To provide an in-depth understanding of advanced software technologies, the Internet infrastructure and network computing and Internet technologies.
To provide an in-depth understanding of wireless networks and satellite communications.
To provide engineering students with an understanding of business technology strategy, financial management and entrepreneurship.
To provide an understanding of the functions of a large company in terms of the development and implementation of a project.

Specific aims include the acquisition of the necessary project management skills and programming skills needed and the ability to decompose a business and other processes into an appropriate distributed system model; to determine an appropriate means to implement the model; to implement the model using a selection of technologies; to implement a piece of software; to synthesise a design (in software) from a specification (including assessing the best option from a range of alternatives), implement the design and evaluate the design against the original specification.

Learning outcomes for the programme

Learning outcomes for the programme
- An understanding of the fundamental nature of the infrastructure of the internet
- An understanding of the nature and use of network computing and internet
technologies

- An understanding of the techniques and limitations of satellite and wireless networks
- An ability to use Java for network programming
- An ability to use modern probabilistic techniques for the analysis of network performance, and an appreciation of the limitations of these methods
- An appreciation of the use of business, finance and management techniques particularly with respect to business activity related to the use of WANs
- A demonstration of the use of taught knowledge via the successful completion of a project in telecommunications business or a cognate subject.

Teaching, learning and assessment strategies

Each non-project-based module involves lectures, problem solving coursework and practical sessions. Lectures are used to introduce principles and methods and also to illustrate how they can be applied in practice. Coursework allows students to develop their skills in problem solving and to gain practical experience. Practical sessions provide students with the guidance and help while solving a problem. These lessons take the form of exercise classes and programming laboratories that allow the students to learn-by-doing in order to complement the lectures.

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 a demonstration of the piece of software developed by the student.

Programme structure(s) and requirements, levels and modules

**Semester One**

- ELEM011: Internet Infrastructure
- ELEM031: Business Technology Strategy
- ELEM002: Advanced Software Technologies
- ELEM004: Network Computing and Internet Technologies

**Semester Two**

- MTRM018: Total Quality Management*
- ELEM043: Network Planning, Finance & Management
- ELEM007: Intelligent Agents and Multi Agent Systems
- ELEM015: Protocols for the Electronic Marketplace

**May-September:**

- ELEM010: Project in Internet Computing/e-Commerce
* Indicates course taught outside the Electronic Engineering Department

**Progression Criteria**

To obtain an MSc a student must gain passes in six of the eight 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%.

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

There are four SSLC meetings each academic year, two in each teaching semester. The meetings act as a forum for both students and staff to raise issues about the programmes, individual modules or facilities. Each semester students are invited to complete a web-based questionnaire and the results are fed back through the SSLC meetings. The results are also made available on the student intranet as are the minutes of the SSLC meetings.

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**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 is scrutinised by a School Industrial Advisory Panel. The Panel meets annually to discuss research and teaching matters pertinent to our field.
| Person Completing Programme Specification | Mark Jenkinson |
| Person responsible for management of programme | Dr Tony Stockman |
| Date programme specification agreed by Department or teaching and learning committee | N/A |
| Date of approval by Faculty Board/SMD Education Board | N/A |
| Date of update/amendment | 09/09/2010 |