1. GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Award</th>
<th>Programme Title</th>
<th>Duration</th>
<th>Mode of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc</td>
<td>Advanced Computer Science with ICT Management</td>
<td>1 year</td>
<td>Full-time</td>
</tr>
<tr>
<td>MSc</td>
<td>Advanced Computer Science with ICT Management</td>
<td>2-4 years</td>
<td>Part-time</td>
</tr>
<tr>
<td>MSc</td>
<td>Advanced Computer Science with ICT Management</td>
<td>3-4 years</td>
<td>Modular</td>
</tr>
<tr>
<td>PG Diploma</td>
<td>Advanced Computer Science with ICT Management</td>
<td>1 year</td>
<td>Full-time (exit award only)</td>
</tr>
<tr>
<td>PG Diploma</td>
<td>Advanced Computer Science with ICT Management</td>
<td>2-3 years</td>
<td>Part-time</td>
</tr>
<tr>
<td>PG Diploma</td>
<td>Advanced Computer Science with ICT Management</td>
<td>2-3 years</td>
<td>Modular</td>
</tr>
<tr>
<td>PG Certificate</td>
<td>Advanced Computer Science with ICT Management</td>
<td>1 year</td>
<td>Full-time (exit award only)</td>
</tr>
<tr>
<td>PG Certificate</td>
<td>Advanced Computer Science with ICT Management</td>
<td>2 years</td>
<td>Part-time (exit award only)</td>
</tr>
<tr>
<td>PG Certificate</td>
<td>Advanced Computer Science with ICT Management</td>
<td>2 years</td>
<td>Modular (exit award only)</td>
</tr>
</tbody>
</table>

School: Computer Science  
Faculty: Engineering & Physical Sciences  
Awarding Institution: The University of Manchester  
Programme Accreditation: BCS & IEE  
Relevant QAA benchmark(s): N/a – currently only at undergraduate level

2. AIMS OF THE PROGRAMME(S) (must include separate aims for PG Certificate and PG Diploma awards)

The programme aims to: **(NB PG Cert is exit award only)**:

01. **At PG Diploma level**: Produce the highest quality of computing professionals and researchers across a broad range of Computer Science

02. Provide a vehicle for dissemination of leading-edge knowledge and skills, focusing on the research strengths of a large School covering most major topics in Advanced Computer Science and its applications to the strategic development of business enterprise.

03. Continue to attract the highest-quality students from the UK and overseas

04. Produce computing professionals who can understand the strategic role of ICT innovation in achieving organisational goals

05. Provide an opportunity to engage in a small research project in Advanced Computer Science

06. **At MSc Level**: As above 01-03 together with 05:  
Provide high quality training in research in Advanced Computer Science with ICT Management.
3. INTENDED LEARNING OUTCOMES OF THE PROGRAMME(S) (must include separate outcomes for PG Certificate and PG Diploma awards)

A. Knowledge & Understanding

Students will be able to:

A1. [At all levels] Acquire a knowledge of a range of advanced topics in Computer Science beyond undergraduate level and at the forefront of research

A2. [At all levels] Understand, apply and develop leading-edge technologies in one or more of: high performance computing, formal foundations of Computer Science, computer engineering and electronic instrumentation, software engineering, advanced applications, artificial intelligence.

A3. [MSc & PG Diploma] Have a knowledge & understanding of research methodology & practice

A4. [at all levels] Acquire a knowledge & understanding of the strategic role of ICT innovation to the overall goals of an enterprise

A5. [at all levels] Understand the management of change in an organisation

A6. [at all levels] Develop a knowledge and understanding of organisational data to inform management decision making

Learning & Teaching Processes (to allow students to achieve intended learning outcomes)

At MSc, PG Diploma & PG Certificate levels
Because of the very wide range of topics and content, each advanced course unit utilises methods appropriate to the subject matter.

At MSc, PG Diploma & PG Certificate levels
Small group lectures, supervised laboratory work, mini-projects (group & individual) and independent preparatory learning are the main vehicles for dissemination of knowledge & understanding during the first half of the programme. The programme will include the use of e-learning to deliver some of the materials for some of the units.

Following the taught part of the programme, students undertake a programme of supervised individual research, leading to a 90 cr dissertation at MSc level and a 30 cr dissertation at PG Diploma level.

Assessment (of intended learning outcomes)

A1 – A6 are assessed by a mixture of written examinations, computer-based practical work, and a range of coursework assessments including assessed miniprojects, group projects, reports, essays etc.

A 1 – 6 are assessed via the research project which includes an oral presentation of the research, and examination of the dissertation

B. Intellectual Skills

Students will be able to:

B1. Develop original ideas in a research context [MSc and PG Diploma levels only]

B2. Use methodologies for development of computational systems at an advanced level [All]

B3. Perform problem-solving in academic and industrial environments [All]

B4. Use methodologies to deliver strategic plans for business development
### Learning & Teaching Processes

**B1.** is mainly demonstrated during the research project, and the Research Skills & Professional Issues unit (COMP60992).

The intellectual ability **B2.** is learned through small-group lecturing and practical lab exercises designed to put theoretical knowledge into practice.

**B3.** is mainly demonstrated during the research project, mini-projects and problem-based learning in teams.

### Assessment

**B1.** & **B3.** are developed and assessed during the research project through presentation of a seminar and examination of the dissertation, as well as the Preliminary Project Report (COMP60992).

**B3.** is also assessed by reports from mini-projects (individual & group).

**B2.** & **B4.** are assessed through exercises, either marked on-line or by written report.

**B4.** will also be assessed in some cases through presentations & workshops.

### C. Practical Skills

Students will be able to:

| C1. | Develop applications to satisfy given requirements |
| C2. | Organise & pursue a scientific or industrial research project *(MSc and PG Diploma only)* |
| C3. | Use, manipulate and develop large computational systems |
| C4. | Perform independent information acquisition and management |
| C5. | Develop plans to manage the change created by technical innovation |
| C6. | Use and manipulate data to provide support for decision-making |

**Learning & Teaching Processes**

**C1.** and **C3.** are demonstrated in practical lab exercises and mini-projects, as well as during the research project.

**C2.** and **C4.** are demonstrated during the research project. **C4.** is also present in many course units.

The practical skill **C4.** is demonstrated in the preliminary preparation for each course unit.

### Assessment

**C1.** and **C3.** are assessed through laboratory exercises, either marked on-line or by written report.

**C2.** and **C4.** are developed and assessed during the Research Skills and Professional Issues unit and the Research Project through presentation of a seminar and examination of the dissertation.

**C4.** is assessed by COMP60992, the Research Project and by a report or marked presentation in some course units.

### D. Transferable Skills and Personal Qualities

Students will be able to:

| D1. | Work effectively as a team member *(MSc, PG Diploma & PG Certificate)* |
| D2. | Prepare and present seminars to a professional standard *(MSc level only)* |
**D3.** Write theses and reports to a professional standard *(MSc and PG Diploma)*

**D4.** Perform independent and efficient time-management *(MSc, PG Diploma & PG Certificate)*

<table>
<thead>
<tr>
<th>Learning &amp; Teaching Processes</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1. is evident in team practical project used in a number of course units</td>
<td>D1. is assessed through reports and marked presentations.</td>
</tr>
<tr>
<td>D2. is demonstrated during the research project seminar and also within a number of course units.</td>
<td>D2. is assessed during the research project seminar, where there is feedback on presentation skills.</td>
</tr>
<tr>
<td>D3. is demonstrated through lab practical and mini-project reports and the research project dissertation.</td>
<td>D3. is assessed by the research project dissertation, and the Preliminary Project Report.</td>
</tr>
<tr>
<td>D4. is demonstrated by the ability to meet a number of deadlines throughout the year, and to effectively carry out a research project on time</td>
<td>D4. is assessed by course unit teachers &amp; the exams office, who must ensure coursework and dissertations are submitted on time. The research project internal examiners assess progress of the project at the project seminar.</td>
</tr>
</tbody>
</table>

### 4. THE STRUCTURE OF THE PROGRAMME(S)

#### Programme structure and credits

| Please indicate both compulsory units and optional units (including Choice of _ from _), as well as requirements for exit awards and any specified pathways. |
| Credits |

For more details about all course units available, please see web-page at: [http://www.cs.man.ac.uk/Study_subweb/Postgrad/](http://www.cs.man.ac.uk/Study_subweb/Postgrad/)

**September**

Introductory week. Introductory talks for each course unit offered. The compulsory and optional choices are made following this, as well as considering research project areas.

The students must select a minimum of four course units from the following two categories of core units as described below. For a description of all course units please refer to the syllabus.

**Category One (Minimum of 2 from this group);**

1. BMAN61051 IT Trends (15 Credits)
2. BMAN60112 IT Systems & Strategy (15 Credits)
3. BMAN61102 Decision Analysis and Decision Support Systems (15 Credits)

**Category Two (Minimum of 1 from this group);**

1. COMP67050 Patterns for eBusiness Applications (15 credits)
2. COMP60362 Advanced Database Technologies (15 Credits)
3. COMP60391 Computer Security (15 Credits)
4. COMP67310 IT Leadership Forum (15 Credits)

5. MSEC40001 Entrepreneurial Commercialisation of Knowledge (15 Credits)

The remaining 30 credits can be selected from any of the course units in the Advanced Computer Science Syllabus (including those in Category 2 above). However, a student could replace one 15 credit non-core course unit with 15 credits from Business: Students who feel the need for a deeper understanding of a particular area of business can choose an appropriate course unit from other relevant departments master level options (e.g. Manchester Science and Enterprise Centre).

Language: An appropriate level course in a Modern Foreign Language may be selected.

In these cases the approval of the Programme Director must be obtained.

The optional Advanced Computer Science course units are selected from the Advanced Computer Science programme.

**September – January**

Students usually take 60 credits-worth of course units in the 1st semester, i.e. four of the course units identified below in 6.

**January – May**

Students usually take 30 credits-worth of course units in the 2nd semester i.e. two of the course units below in 6. To continue towards the research project for MSc award, students need to pass the taught component in this Semester. Students also undertake COMP60992 Research Skills and Professional Issues (30 credits) and its assessment the Project Background Report. In addition to passing the taught course units, the mark awarded to the Project Background Report must be at least 50%. If the Report receives marks of 40% or above, but below 50%, the student exits the programme with a Postgraduate Diploma. Exit with a Postgraduate Certificate is determined by the assessment regulations.

**May – September**

Completion of MSc Project.

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5. **STUDENT INDUCTION, SUPPORT AND DEVELOPMENT** (in order to deliver the intended learning outcomes, including dissertation support and guidance)

**Induction**

Students introduced to a broad range of advanced topics in Computer Science. Opportunity to make informed choice of course units. Opportunity to plan individual programme – students must take the appropriate combination of course units as well as a suitable research project.

**September – January**

Course units are taught in an intensive mode: 1 day a week for 5 weeks are ‘taught’ days consisting of lectures, supervised practicals etc., 2.5 days a week for 5 weeks are practical exercises and 2.5 days of a coursework completion week are also practical exercises. Some of the practical exercises may be assessed work. Most course units are assessed through coursework (66%) and end-of-semester examination (34%). However, flexibility is allowed in the delivery and assessment, allowing methods appropriate for each subject. Further information is available at:

http://intranet.cs.man.ac.uk/Intranet_subweb/Postgrad/infocurrentstudents.php
January – May

To continue towards the research project for MSc award, students need to pass the taught component and the COMP60992 assessment. For PG Certificate exit award, students need to pass 60 credits of taught course units. For PG Diploma, students need to pass the taught component at the 40% level and the COMP60992 assessment at the 40% level. MSc and Diploma students select their research project from a wide range of proposed projects, and also by individual agreement with supervisors.

May – September

There is a seminar to supervisor, internal examiner & research group, in June. Feedback on presentation skills and a progress report are provided for the student at this point. The thesis is assessed by two internal examiners by report and moderated by one external examiner.

Students have access to the Programme Director throughout the programme. They are encouraged to contact the Director when problems arise and are informed of this during the introductory period. The Department also has a drop-in Advice Centre for lunch-time help-sessions. During the period of the second Semester and the research project, an individual assigned supervisor is also available. Relationship with the supervisor is outlined in the Programme Handbook and the Research Skills and Professional Issues course unit COMP60992.
## 6. CURRICULUM MAP OF COURSE UNITS AGAINST INTENDED LEARNING OUTCOMES OF THE PROGRAMME

<table>
<thead>
<tr>
<th>Course Unit Title and Code (including dissertations and other programme components)</th>
<th>Knowledge &amp; Understanding (A)</th>
<th>Intellectual Skills (B)</th>
<th>Practical Skills (C)</th>
<th>Transferable Skills &amp; Personal Qualities (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Course Unit title</td>
<td>C/O</td>
<td>A1</td>
<td>A2</td>
</tr>
<tr>
<td>COMP 60001</td>
<td>Introduction</td>
<td>C</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>COMP 60022</td>
<td>SE/HPC/AA – Grid Computing &amp; e-Science</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60032</td>
<td>HPC/CPTL – High Performance Computing in Science &amp; Engineering</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60042</td>
<td>HPC – Low Power System Design</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60051</td>
<td>HPC – Visualization for HPD</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60062</td>
<td>HPC – System-level Design</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60071</td>
<td>CPTL – Introduction to Computational Science</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60081</td>
<td>HPC/CPTL – Fundamentals of High Performance Execution</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60121</td>
<td>FM/AI - Automated Reasoning</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60162</td>
<td>FM/AI/SE– Knowledge Representation &amp; Reasoning</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60242</td>
<td>AA – Mobile Computing</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60312</td>
<td>AA – Computational Biology</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60321</td>
<td>SE/AA Computer Animation</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60362</td>
<td>SE/AA/IT – Advanced Database Management Systems</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
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<tr>
<td>COMP 60391</td>
<td>AA/IT – Computer Security</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>COMP 60431</td>
<td>AI – Machine Learning</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

To add further columns, sit in A5, B5, C5, or D5. Select Insert from the Table menu, select Columns to the Right. To add more rows, before you’ve filled in the final row of the year, sit in the final row, select Insert from the Table menu, select Rows above. To delete a column, sit in the column you want to delete, select Delete from the Tables menu and select Columns. To delete a row sit in the row you want to delete, select Delete from the Tables menu and select Rows.
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Postgraduate Programme Specification

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Type 1</th>
<th>Type 2</th>
<th>Type 3</th>
<th>Type 4</th>
<th>Type 5</th>
<th>Type 6</th>
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</thead>
<tbody>
<tr>
<td>COMP 60440</td>
<td>AI/AA - Advanced Machine Vision</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
<td>A</td>
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<tr>
<td>COMP 60461</td>
<td>AA/FM/AI – The Semantic Web</td>
<td>C/O</td>
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<td>D</td>
<td>D</td>
<td>D</td>
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<tr>
<td>COMP 60941</td>
<td>AI - Robotics</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>D</td>
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<tr>
<td>COMP 70042</td>
<td>CEESI – Low Power System Design (DL)</td>
<td>C/O</td>
<td>A</td>
<td>D</td>
<td>D</td>
<td>D</td>
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<tr>
<td>COMP 70212</td>
<td>CEESI – Self-Timed Logic (DL)</td>
<td>C/O</td>
<td>A</td>
<td>D</td>
<td>A</td>
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<tr>
<td>BMAN 61051</td>
<td>&amp;IT – IT Trends</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>D</td>
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<tr>
<td>BMAN 60112</td>
<td>&amp;IT – IT Systems &amp; Strategy</td>
<td>C/O</td>
<td>A</td>
<td>A</td>
<td>D</td>
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<tr>
<td>BMAN 61102</td>
<td>AI/AA/SE &amp;IT – Decision Analysis &amp; Decision Support Systems</td>
<td>C/O</td>
<td>A</td>
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<tr>
<td>MSEC 40001</td>
<td>&amp;IT – Entrepreneurial Commercialisation of Knowledge</td>
<td>C/O</td>
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<td>COMP 60992</td>
<td>Research Skills &amp; Professional Issues</td>
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<td>COMP 60900</td>
<td>Research Project</td>
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<td>COMP 67310</td>
<td>&amp;IT - IT Leadership Forum</td>
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<td>COMP 67050</td>
<td>SE/AA/&amp;IT - Patterns for e-Business Applications</td>
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<td>SE/AA/&amp;IT - Semi-Structured Data and the Web</td>
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<td>COMP 67030</td>
<td>SE/AA - Web Applications</td>
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<tr>
<td>COMP 60110</td>
<td>SE/FM - System Construction Using B</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>A</td>
</tr>
</tbody>
</table>

**Legend for cells**

- **D** = intended learning outcomes of the programme are taught or developed by students within this course unit
- **A** = intended learning outcomes of the programme are assessed within this course unit
- **C** = compulsory course unit
- **O** = optional course unit


For the MSc programmes indicated below, see the relevant MSc programme specification re additional learning outcomes for course units associated with that particular programme:
- **&IT = ACSwithICT Management.**
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- CPTL – Computational Science & Engineering.
- EIS = Electronic Instrumentation Systems.
- CEESI = Low Power System Integration
7. CRITERIA FOR ADMISSION

Candidates must be able to satisfy the general admissions criteria of the University and of the School in at least one of the following ways:

Entry to the programme is by a 1st class or good 2nd class honours degree or its overseas equivalent in either Computer Science or a joint course with at least 50% Computer Science content. An honours degree in another subject together with sufficient relevant industrial experience is also acceptable. In exceptional circumstances, candidates without an honours degree but with considerable and relevant industrial and educational experience will be accepted. Candidates with a good Honours Degree or equivalent in a science (Non CS) subject may enter via the Foundation Route.

In addition, all students are required to be proficient in spoken and written English. In order to be accepted on an MSc programme in the School of Computer Science, applicants need to achieve an IELTS score of 6.5 (minimum) or TOEFL 600+ (paper-based) 250+ (computer-based) or Cambridge Proficiency Grade 'C' (minimum) before the programme start date. In addition, overseas students who have attained the minimum IELTS score of 6.5, but less that 7.0 are required to attend the University's English classes during the MSc year of study. The final decision on the standard of English remains with the Admissions Tutor and other very strong evidence of proficiency may be acceptable.

Experience shows that even those students who have passed the required language test find it difficult sometimes to adjust to operating in English entirely. We therefore strongly recommend that all such students take additional measures, such as attending English language courses (the Language Centre at the University provides English Language programmes – see the website at http://www.langcent.manchester.ac.uk), reading English literature, speaking and writing English wherever possible.

8. PROGRESSION AND ASSESSMENT REGULATIONS

The defining regulations and procedures for the MSc programme are laid down in the University’s Ordinances and Regulations.

General Requirements
The assessment consists of two parts (1) an assessment of the taught course units undertaken, and (2) an assessment of the Research Project. In order to be allowed to complete the Research Project, students must pass the taught part of the programme. The award of an MSc is then made on the basis of the output from the Research Project.

Taught Part
Taught course units are normally assessed by coursework and examination.

Coursework
Coursework is likely to include practical laboratory exercises (individually or in groups), written essays, seminar presentations, and/or other forms appropriate to each individual course unit. The weightings of coursework and examination marks used in computing the course unit results are given in the course unit descriptions.

Please refer to Section 11 for important coursework issues pertaining to different types of coursework and plagiarism.

Discipline and conduct
The University’s policy on student ‘Discipline and Conduct’ is also available on the policies webpage.

Examinations
The examinations usually consist of a two-hour paper for those course units with examinations. The...
examinations take place at the end of each Semester. Past examination papers are available via the School's information page for MSc students. Some examinations may be “Open Book”, in which case material may be taken into the examination room. Sometimes this material will be prescribed. Most examinations however are not of this form and no supporting material may be taken into the examination room.

**Use of language translation dictionaries in the examinations.** Students who are registered on this programme of study are **not** allowed the use of a dictionary during examinations.

**Pass Rules**
The assessment for the MSc consists of two parts: (1) an assessment of the **taught course units** undertaken and (2) an assessment of the **project (and group and individual reports in the case of group-based projects)**. In order to be allowed to progress to the research project, students must successfully pass the taught part of the programme and the COMP60992 unit. The award of an MSc is then dependent upon passing the assessment of the project.

The assessment regulations for the following programmes are given below.

- MSc in Advanced Computer Science
- MSc in Advanced Computer Science with IT Management
- MSc in BioHealth Informatics
- MSc in Computational Methods and Imaging in Medicine

Including Diplomas and PG Certificates

**Taught Course Units**
Each student will be assessed on 90 credits’ worth of coursework and/or examination questions. Coursework is likely to include practical laboratory exercises (individually or in groups), written essays, seminar presentations, and/or other forms appropriate to each individual course unit; for each full course unit, this usually carries two-thirds of the mark. The examinations usually consist of a two-hour paper for each course unit, carrying one third of the marks, and take place after the teaching in each Semester. The University regulations are at: [http://www.campus.manchester.ac.uk/medialibrary/tlao/pgt-regulations-june2007.doc](http://www.campus.manchester.ac.uk/medialibrary/tlao/pgt-regulations-june2007.doc)

**Individual Course Units**
Pass Rules for Individual Course Units. Individual course units are assessed as follows: a pass at MSc level is awarded if the overall mark for the course unit is at least 50%. For a pass at diploma or certificate level, an overall mark for the course unit of 40% is sufficient. A candidate is required for the MSc degree to register for 90 credits’ worth of taught course units, and will normally be considered as passing the units if all course units have been passed at **50% or more**. The failed course units can be re-sat once and the maximum mark to be awarded for re-submitted coursework or re-taken examination will normally be 50%.

**Compensated pass:**
Students may be awarded a compensated pass for a **Masters degree** when they fail **no more than 30 credits** and receive a mark between 40 and 49% for those failed credits. The student must also have gained an overall average for all taught credits of 50% or more in order to be granted a compensated pass.

**Failed units:**
The maximum allowable cumulative failure of course units in a Masters programme at the first attempt is 45 credits of the taught component of the programme. A student whose failures at the first attempt exceed 45 credits will be deemed to have failed the programme. They will then be judged against the requirements for a pass on the Postgraduate Diploma programme. If this results in their failing less than or equal to 45 credits at Postgraduate Diploma level, the student may resit those units failed at Postgraduate Diploma level to obtain the award of Postgraduate
Diploma.
The final decision on whether a student passes is taken by the MSc Examination Board.

Pass rules for Postgraduate Diploma and Certificate

Postgraduate Diploma
The University regulations are at: http://www.campus.manchester.ac.uk/medialibrary/tlao/pgt-regulations-june2007.doc It is awarded to a student who has been assessed on 90 credits' worth of coursework & examination questions, and will normally be considered as passing the units if all course units have been passed at 40% or more.
Students may be awarded a compensated pass for a Postgraduate Diploma programme when they fail no more than 30 credits and receive a mark between 30% and 39% for those failed credits. The student must also have gained an overall average for all taught credits of 40% or more in order to be granted the compensated pass.
The maximum allowable accumulative failure at Postgraduate Diploma level at first attempt is 45 credits of the taught component of the programme. These failed course units can be re-sat at Postgraduate Diploma level. The maximum mark to be awarded for re-submitted coursework or re-taken examination will normally be 40%.
In addition, for the Diploma, students are required to successfully complete the Project Background Assessment and achieve a mark of 40% or more.

Postgraduate Certificate
The University regulations are at: http://www.campus.manchester.ac.uk/medialibrary/tlao/pgt-regulations-june2007.doc This is awarded to students who have successfully taken 60 credits' worth of coursework & examination questions with a result of 40% or more in each course unit.
Students may be awarded a compensated pass for a Postgraduate Certificate programme when they fail no more than 15 credits and receive a mark between 30% and 39% for those failed credits. The student must also have gained an overall average for all taught credits of 40% or more in order to be granted the compensated pass.

MSc Project
The MSc Project comprises two parts:
- Part 1 – Background research, specification, design studies (February to May/June)
  Assessment: Project Background Report
- Part 2 – Completion of MSc project (June to early September)
  Assessment: Dissertation (and Group Report for group projects) (60 credits)

Project Background Report (COMP60992)
The assessment for COMP60992 (Research Skills and Professional Issues) is through the Project Background Report in the case of an individual MSc Research Project, and a group report and individual report in case of a group based MSc Research Project. The precise content of the report depends upon the nature of the Research Project, but typically will include (1) Description of the project and its context and aims, (2) Survey of relevant literature, (3) Study of relevant research methods, design methodology, and implementation tools, (4) Requirements and specification, (5) Criteria of success, and (6) Project plan for overall project.
The report(s) will be assessed according to the standards expected of the Masters Dissertation with respect to substance, soundness of contents, and quality of presentation. The report is/are assessed in the same way. The supervisor and a second marker make independent assessments. The individual MSc Dissertation, and group report are assessed internally, see Section 10.3 below.
The report(s) contribute(s) 30 credits to the MSc. The report(s) is/are assessed and, in order to be allowed to complete the Research Project and gain an MSc the report(s) must pass at the 50% level. If the report(s) receive(s) marks of 40% or above, but below 50%, the student exits the programme with a Postgraduate Diploma. No resit of COMP60992 is allowed, except where mitigating circumstances have been approved.

Research Project and Dissertation
Individual MSc Dissertation
The general requirements for presentation of an individual dissertation are set out in the University’s Ordinances and Regulations. All work must be original: students presenting work from another source, including from other students, without explicit acknowledgement may be regarded as attempting a fraud and will be dealt with under the University’s disciplinary procedures. A more extensive discussion of what is and what is not permitted in this area can be found in Plagiarism (Section 17.3).

Group-Based MSc Projects
The assessment of group –based MSc projects is based on

- The group report 40%
- The individual report 60%

The group report is prepared by the group as a whole. The group report should include a brief description of the organisation of the project tasks, how decisions were reached and a summy of all joint and individual contributions to various aspects of the group report (typically this will include contribution to the specification and design, research, program code, program documentation, project management logs, minutes of meetings, editorship of group report). The group report, together with any supporting documents which are prepared jointly, should be submitted as a separate document under joint ownership. Each member of the group will normally get the same group report mark.

Each member of the group should prepare and submit an individual dissertation which should follow the University’s guidance on the presentation of taught Masters dissertations. http://www.campus.manchester.ac.uk/medialibrary/researchoffice/graduateeducation/g-pres-diss-pgt.pdf

The Individual dissertation must include the following:
Details about the individual contribution to the project and a summary of the other group member’s contributions to the project.

A suitably formulated declaration about authorship. The declaration should state that the work referred to in the dissertation was completed as part of a group project, what portion of the work referred to in the dissertation has been (or will be) submitted by which members other members of the group, and what portion (possibly none) of the work referred to in the dissertation has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Dissertation Examination
The MSc dissertation/reports is/are evaluated by two internal examiners at Manchester (normally your supervisor and another not involved with your work on the project) who submit written reports. These reports and the dissertations themselves are considered by the external examiner at a specially convened examination meeting in November.

The MSc Project Mark is the credit-weighted average of the marks for the Project Background Report (rated 30 credits) and the MSc dissertation, and Group Project Report were applicable (rated 60 credits). A pass for the project is awarded for a project mark of 50% or above.

At the recommendation of the board of examiners, students will normally be allowed one resubmission of a failed dissertation or group project report and this will normally be within four months of the date of the publication of the result. Resubmission will not be allowed if the mark is below 40%.

Students who achieve a MSc project mark mark of between 40-49% may accept the award of Postgraduate Diploma with no further work required or resubmit the dissertation/reports on one occasion, at the discretion of the Board of Examiners. A student achieving a mark below 50% for a resubmitted dissertation/reports will be awarded a Postgraduate Diploma.

The maximum mark to be awarded for resubmitted dissertations or projects will normally be 50% for the Masters degree and 40% for the Postgraduate Diploma. The project reports for the Diploma is assessed by the same procedure, applied to a project of 30 credits (instead of 90 credits) and the minimum pass mark is 40%.
Awards by Credit Accumulation

As well as the one-year MSc programme, the School offers a MSc, Diploma and a Postgraduate Certificate, by accumulating credits over a period, normally no more than four years. These qualifications are suitable for part-time students and for those who are on release for training and skills enhancement.

The MSc Programme requires a total of 90 credits in taught course units (6 course units), assessed as described above, and a 90 credit full project. The whole must normally be taken within four years, and students are encouraged to take it within a shorter period, either over two years; or in a three-year scheme in which 45 taught credits (3 course units) are taken in each of the first two years and the research project in the third. These arrangements can be modified to suit personal circumstances.

There are two routes to achieving the Diploma.

This route is only open to part-time or part-time modular students and requires a total of 120 credits in taught course units (8 course units), assessed as follows: To pass at Diploma level the credit weighted average of the course units must be 40% or more and no more than 30 credits shall fall below the 40% mark, and these failed credits should be between 30% and 39%. The selection of these course units must fulfil the same criteria as selection for the MSc programme. Candidates would select this option at (a) entry point into the programme or (b) on successful completion of 90 credits (6 course units).

This route is open to all students and requires a total of 90 credits in taught course units (6 course units), assessed as described above, with a credit weighted average of 50%. The selection of these course units must fulfil the same criteria as selection for the MSc programme and a research project of 30 credits.

The Postgraduate Certificate is awarded to students who have successfully taken 60 taught credits (4 course units) with a result of 40% or more in each course unit.

Individual course units may be taken and these are awarded a pass when the marks for the unit are 50% or more.

The results for every student are presented to the Computer Science MSc examination board and provided they fulfil the stated criteria will be confirmed as a pass.

Upgrading from a Certificate to a Diploma or to an MSc, or from a Diploma to an MSc is permitted as long as the final award is achieved within a four-year period from first registering for the lower qualification.

MSc with Distinction

An MSc with Distinction is awardable under the following circumstances:
The student must have passed the assessment for course units with an overall mark of at least 70% with no mark below 50% in any course unit.
The examiners award a project mark of at least 70%. The recommendation is then passed to the External Examiner, who must agree to the recommendation for the award of a Distinction to be granted by the Faculty’s MSc Panel.

Students who have had to resit any unit(s) or have been granted a compensated pass will not be eligible for the award of distinction.

Diploma students can gain a Distinction if they satisfy the same rules.

MSc with Merit

An MSc with Merit is awardable under the following circumstances:
The student must have passed the assessment for course units with an overall mark of at least 60% with no mark below 50% in any course unit.
The examiners award a project mark of at least 60%.

Students who have had to resit any unit(s) or who have been granted a compensated pass will not be eligible for the award of merit.

Diploma students can gain a Merit if they satisfy the same rules.

MSc with Pass

To obtain a pass for an MSc degree, the student is required both to pass the taught course units at Masters level as described above and to achieve at least 50% as a project mark.
Procedures for Students Who Fail
Students who fail the assessment for the taught part of the programme are permitted single resits of failed examinations on the next occasion that the examinations are normally set. This normally means that the student needs to interrupt her/his studies and retake the examinations in the next year. It is not possible to continue with the project until the taught part of the programme has been passed. There is no resit for COMP60992 (see regulations Section 6.3). If a candidate satisfies the criteria for a Diploma or Certificate, they may, at the discretion of the Examiners, be given the option to re-register accordingly. If in the opinion of the Examiners a candidate fails to meet acceptable standards of performance, they will be excluded from the programme and their registration will be cancelled. In all such circumstances the Programme Director will discuss the candidate's circumstances with the aim of achieving the most satisfactory outcome.

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