Programme Specification for MSc Knowledge Management

1. Awarding institution  Middlesex University
2. Teaching institution  Middlesex University
3. Programme accredited by  British Computer Society
4. Final qualification  MSc
5. Programme title  Knowledge Management
6. JACS code (or other relevant coding system)  G510
7. Relevant QAA subject benchmark group(s)  Computing
8. Academic Year  2007/2008

9. Reference points
The following reference points were used in designing the programme:

- QAA Computing subject benchmark statement
- QAA Framework for Higher Education Qualifications in England, Wales and Northern Ireland
- Towards Benchmarking Standards for Taught Masters Degrees in Computing (sponsored by CPHC), May 2004
- QAA/CLQE guidelines for programme specifications
- QAA Code of Practice for the assurance of academic quality and standards in HE
- University Policy, Regulations and Guidelines
- Middlesex University and School of Computing Science Teaching Learning and Assessment policies and strategies
- University policy on equal opportunities

10. Aims of the programme
The programme aims to enable students to improve an organisation’s ability to manage its knowledge assets. This includes but is not limited to specification, design, construction and maintenance of computerised systems. Additionally, the student will learn techniques to foster learning and knowledge communities within the organisation since people are essential to Knowledge Management.

The programme develops the ability of graduates to conduct their own research independently and to integrate technologies, concepts, theories, and models from a wide range of modules. The programme provides a learning framework in which the student may reflect and develop with a high level of independence but with a clear understanding of the objectives of the programme. One of the key points of the programme is that Knowledge Management is an ongoing activity. It is crucial that graduates are able to research on their own, and keep abreast of the ever changing literature.
Each module is designed to investigate Knowledge Management methods, tools and
techniques and evaluate their applicability within specific commercial domains. It is not
intended that a focus will be placed on specific software systems, languages or
technology paradigms, rather to assess the suitability of these in context.

In addition to acquiring an immediate set of practitioner skills, students will be given the
opportunity to work on a project under supervision, applying theory to practice, exploring
the potential of existing and emerging technologies for problem solving in organisations.

This programme enhances graduates’ ability to respond to rapidly changing
Technological and commercial environments by providing the opportunity for study of
new approaches. The advanced study skills of the graduate student enable this
approach and reduce dependence on specific technologies within the programme.

## 11. Programme outcomes - the programme offers opportunities for students to
achieve and demonstrate the following learning outcomes.

<table>
<thead>
<tr>
<th>A. Computing-related cognitive abilities</th>
<th>B. Computing-related practical abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>On completion of this programme the successful student will be able to :</td>
<td>On completion of this programme the successful student will be able to:</td>
</tr>
<tr>
<td>1. Reflect on the relationships among knowledge, information and data, appropriately integrating these into business activities and decisions</td>
<td>1. Specify, design and construct data</td>
</tr>
<tr>
<td>2. Analyse the suitability of software tools for particular Knowledge Management tasks and business processes, taking into consideration past successes of tools and likely future changes. One particularly important metric for suitability is quantifiable strategic business outcomes</td>
<td></td>
</tr>
<tr>
<td>3. Formalise people’s knowledge and analyse their use of it in specific cases</td>
<td></td>
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<tr>
<td>4. Analyse the role of various stakeholders in Knowledge Management activities and explain the importance of Knowledge Management to those stakeholders</td>
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<tr>
<td>5. Evaluate the use of knowledge by organisations and propose improvements at strategic and operational levels.</td>
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</tr>
</tbody>
</table>

### Teaching/learning methods

**Teaching/learning methods**

Students gain computing-related cognitive abilities through a combination of traditional lecture delivery and resource based learning, small group discussions, small group and individual exercises, lab sessions, demonstration software, on-line examples and the research project.

Throughout their studies students are encouraged to undertake independent study both to supplement and consolidate what is being learned, and to broaden their individual knowledge and understanding of the subject. Critical evaluation and selection of methods, tools and solutions engage the students in relating theory to practice.

### Assessment

**Assessment**

Students’ computing-related cognitive abilities are assessed by group and individual coursework, presentations, unseen examination and the research project.

Outcomes 1, and 2, 3 and 5 are assessed by coursework.

Outcomes 4 is assessed by both coursework and unseen examination.

**Teaching/learning methods**

Students learn computing-related practical skills through a blended learning approach which involves face-to-face sessions.
mining systems and other intelligent systems

2. Specify, design, construct, integrate, maintain and evaluate knowledge systems

3. Develop useful interfaces to computing systems that highlight different knowledge for different users

4. Use a wide range of knowledge representation and visualisation techniques in computing applications

5. Work as a member of a knowledge management team

6. Analyse cases and suggest ways of improving the creation, communication and utilisation of knowledge

(lectures and/or seminars), self directed, resource-based learning, small group discussions, small group and individual exercises, laboratory sessions, demonstration software, on-line examples and the research project. Weekly seminar sessions provide the opportunity to address questions, queries and problems.

Analysis, design and problem solving skills are further developed through example case studies, computer laboratory sessions and through supervised small group teaching. Feedback is given to students on all assessed coursework.

Assessment

Students' cognitive skills are assessed by group and individual coursework, presentations, unseen examinations and the project dissertation.

Outcomes 2, 4, 5 and 6 are assessed by coursework.

Outcome 1 and 3 are assessed by both coursework and unseen examination.

C. Additional transferable skills

On completion of this programme the successful student will be able to:

1. Understand and master skills for working in teams both face to face and through a range of distance mechanisms. 2. Critique existing research

2. Critique a range of research methods and reflect on when they are appropriate. 4. Learn independently and critically in familiar and unfamiliar environments

3. Encourage others to pursue independent knowledge management activities

4. Cultivate knowledge networks and communities of practice

Teaching/learning methods

Students acquire transferable skills through the teaching and learning programme outlined above. Skills are structured, delivered, and assessed throughout the programme.

Assessment

Students’ transferable skills are assessed by coursework, exams and the project.

Outcomes 2, 3, 4 and 5 are assessed by coursework.

Outcomes 1 and 6 are assessed by coursework, exams and the project.

12. Programme structures and requirements, levels, modules, credits and qualifications

12. 1 Overall structure of the programme
The programme is available full and part-time mode in the UK. The programme comprises four taught 30 credit taught modules, and the final postgraduate computing project module (worth 60 credits). All modules on the programme are compulsory. The University academic year is split into three terms (Autumn, Winter, Spring) of 12 teaching weeks followed by a summer period. Full-time students study two 30-credit modules in each of their first two terms and undertake the project module (60 credits) over the remainder of a calendar year. Part-time students would study one 30-credit module per term and would complete the project over two terms. Details of each module can be found in the Computing Subject and Programme Handbook.

### 12.2 Levels and modules

<table>
<thead>
<tr>
<th>Level 4</th>
<th>COMPULSORY¹</th>
<th>CREDIT POINTS</th>
<th>PROGRESSION REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIS4405 Knowledge Management Systems Development</td>
<td>30</td>
<td>Students must pass all the taught modules before they can progress onto the project.</td>
<td></td>
</tr>
<tr>
<td>BIS4406 Knowledge Discovery</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIS4407 Research Methods in Knowledge Management</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIS4410 Knowledge Management Strategies</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIS4992 Postgraduate Computing Project</td>
<td>60</td>
<td></td>
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</tr>
</tbody>
</table>

### 12.3 Non-compensatable modules

Modules may additionally be designated non-compensatable

No modules excluded from consideration for compensation. University regulations on compensation will apply.

### 12.4 Programme Diagram for MSc Knowledge Management

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¹ Compulsory modules are those that must be taken; that is, the qualification cannot be made unless these modules have been successfully completed. Each of these modules makes a unique contribution to the learning objectives of the programme or subject major/minor.
September start

Autumn Term (AT)
- BIS 4405 Knowledge Management Systems Development
  - 100% CW

Winter Term (WT)
- BIS 4406 Knowledge Discovery
  - CW then Exam WT
- BIS 4410 Knowledge Management Strategies
  - 100% CW

Spring and Summer Terms
- BIS 4407 Research Methods in Knowledge Management
  - 100% CW
- BIS4992 Postgraduate Computing Project
  - 100% CW
13. A curriculum map relating learning outcomes to modules

This map shows the main measurable learning outcomes of the programme and the modules in which they are assessed.

<table>
<thead>
<tr>
<th>Module</th>
<th>Code</th>
<th>Programme outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A1    A2    A3    A4    A5    B1    B2    B3    B4    B5    B6    C1    C2    C3    C4    C5    C6</td>
</tr>
<tr>
<td>Knowledge Management Systems Development</td>
<td>BIS4405</td>
<td>✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓</td>
</tr>
<tr>
<td>Knowledge Discovery</td>
<td>BIS4406</td>
<td>✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓</td>
</tr>
<tr>
<td>Research Methods in Knowledge Management</td>
<td>BIS4407</td>
<td>✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓</td>
</tr>
<tr>
<td>Knowledge Management Strategies</td>
<td>BIS4410</td>
<td>✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓</td>
</tr>
<tr>
<td>Design and Evaluation of Interactive Systems</td>
<td>CMT4131</td>
<td>✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓      ✓</td>
</tr>
</tbody>
</table>
14. Criteria for admission to the Programme

Applicants should normally have one of the following:

- A second class or higher honours degree in a computing discipline or other field closely related to the programme, such as library science
- A second class honours degree together with employment or professional experience in a field relevant to the programme and at an appropriate level in the field

In certain circumstances candidates may be asked to attend an interview and undertake an aptitude test.

International students whose first language is not English or who have not been taught in the English medium throughout, and whose first degree is not from a British university, must achieve an IELTS score of 6.5 or TOEFL 575 (paper based) 233 (computer based).

University policies supporting students with disabilities apply, as described in the Guide and Regulations, 'Information for Students with Disabilities'.

15. Information about assessment regulations

- Information on how the university formal assessment regulations work, including details of how award classifications are determined, can be found in the University Guide and Regulations at [www.mdx.ac.uk/regulations/](http://www.mdx.ac.uk/regulations/)
- Modules are assessed in accordance with the School of Computing Science’s assessment strategy
- Practical aspects of the programme are often assessed via coursework that may be carried out using specialist software
- Theoretical material is normally assessed by coursework and examination
- Grades are awarded on the standard University scale of 1-20, with Grade 1 being the highest. To pass a module which comprises both coursework and examination, students must pass in both components with a minimum grade of 16.

16. Indicators of quality

- The School’s validation and review process are audited by the University’s Centre for Learning and Quality Enhancement (CLQE) every three years
- The School’s research informs its teaching. Its research has shown significant improvement recently. In the most recent national Research Assessment Exercise (RAE) the School improved its standing by two levels, achieving a rating of 3a
- School Module and Programme Questionnaires are completed by students each term. These help to provide data to the School on the student satisfaction with their university experience. Overall, recent analyses of the data show a good level of satisfaction
- External Examiners are appointed by the University to scrutinise the quality of assessment
- Staff leading modules on this programme are active researchers in the area the module covers.

17. Particular support for learning

The School’s Teaching and Learning Strategy is compliant with that of the University; it aims to develop learner autonomy and to encourage resource-based learning.
In support of the student learning experience:

- All new students go through an induction programme and some have early diagnostic numeric and literacy testing before starting their programme. Learning Resources provide workshops for those students needing additional support in these areas.
- Students are allocated a personal email account, secure networked computer storage and dial-up facilities.
- New students are provided with a CD containing the school's Subject Handbook at enrolment (electronic copies for all students can also be found at [http://www.mdx.ac.uk/24-7/cs/#subjecthandbook](http://www.mdx.ac.uk/24-7/cs/#subjecthandbook)). If you require a hard copy of this Subject Handbook please request them from the School of Computing Science Academic Advice office at Hendon.
- Each term new and existing students are given module handbooks for each module they study. Soft copies of all module handbooks on a CD will also be provided to students at enrolment. Web-based learning materials are provided to further support learning.
- Extensive library facilities are available on the Hendon campus. WebCT pages are available as learning resources through the Oasis system.
- Campus Student Offices offer advice and support to students through their Student Advice Centres.
- Placements are supported by campus Student Offices and School academics; please refer to section 19 of this programme specification.
- High quality specialist laboratories equipped with industry-standard software and hardware are available for formal teaching and personal study.
- To provide assistance and guidance in support of particular learning needs, campus-based, drop-in sessions are arranged by the School as needed.
- School Academic Advisors for each subject are available to offer personal academic advice and help. Rotas for the operation of Academic Advice Rooms at each campus can be found at [http://www.mdx.ac.uk/24-7/cs/index.htm#tutor](http://www.mdx.ac.uk/24-7/cs/index.htm#tutor).
- Tutorial sessions for each module, organised for groups of up to 20 students, are provided for additional teaching support.
- Formative feedback is given on completion of student coursework.
- Past exam papers with solutions and marking schemes are available for students in module handbooks and at [http://www.mdx.ac.uk/24-7/cs/index.htm](http://www.mdx.ac.uk/24-7/cs/index.htm).
- Research activities of academic staff feed into the teaching programme. The Research Topics in Knowledge Management module will bring several researchers outside of the normal instructional staff into contact with the students. Many individual research projects will be based around academic staff’s core research areas. All of these activities can provide individual students with ad hoc opportunities to work with academic and industrial researchers on a wide range of research activities.

Middlesex University encourages and supports students with disabilities. Some practical aspects of computing science programmes may present challenges to students with particular disabilities. You are encouraged to visit our campuses at any time to evaluate facilities and talk in confidence about your needs. If we know your individual needs we’ll be able to provide for them more easily. For further information contact the Disability Support Service (email: disability@mdx.ac.uk).

18. Methods for evaluating and improving the quality and standards of learning
Student Boards of Study held in weeks 6–8 of each term allow formal feedback from student representatives regarding their programme of study and associated modules. Academic staff report on their modules at these Boards. Campus Forums deal with the general facilities affecting the student learning experience.

Reviews of module delivery via student questionnaires (for module and programme) allow feedback of student experience for each module. Questionnaires are analysed by an automated process, with any issues identified, discussed at Boards of Study, Academic Group meetings and the School Quality Committee.

Module leaders provide reports that record general student performance in each written examination on the university’s 24-7 student support Web site (at www.mdx.ac.uk/24-7/cs).

Staff provide formal reports at Assessment Boards on the operation of modules/programmes that affect assessment.

External examiners from other Universities moderate all examination questions before assessment takes place. They also moderate coursework briefs for those modules assessed by more than 50% coursework. After assessment external examiners review a cross-section of assessed student work and attend and contribute to the Assessment Boards. The external examiners submit formal end-of-year reports to the University’s Centre for Learning and Quality Enhancement (CLQE) on their observations, making recommendations as appropriate, and the School formally responds to these and checks that any actions arising from them are completed.

School and Subject Annual Monitoring Reports are compiled according to CLQE guidelines to consider the effectiveness of subjects and programmes in achieving their stated aims and intended learning outcomes, and the quality of the student experience.

Quality of teaching is monitored by peer observation, staff appraisals, training and dissemination of good practice.

New ideas to improve teaching methods and learning resources are discussed in regular meetings of teaching staff in academic groups.

Student progression for each module is closely monitored by the School Quality Committee, and reported on by programme and curriculum leaders as part of the annual monitoring process.

Regular Subject and Programme Validation and Review events are carried out by panels of academics from within the School and from outside the School and University to ensure high academic standards are being maintained and enhanced. Student representatives are invited to such events to enable student views to be given directly to the panels. (The University’s ‘Procedures Handbook’ is the source of information on how these procedures combine to provide ongoing quality assurance and enhancement of our programmes and can be found at http://www.mdx.ac.uk/24-7/cs/index.htm#tutor)

The professional body for Computing Science is the British Computer Society (BCS). The Society visits every five years to re-evaluate the quality and standards of programmes they accredit.

19. Placement opportunities, requirements and support (if applicable)

Industrial placement opportunities are available for students who wish to work in industry for a maximum period of 12 weeks. This should be done after successfully completing 120 credits on the programme. If the student has an industrial
placement the project (BIS4992) may be postponed until after the placement

- Industrial placement is conditional on the successful completion of all taught modules. Therefore 120 credits at level four need to be successfully completed before embarking on an industrial placement
- The campus Placement Office manages University-industry relations and assists students in obtaining industrial placements. Further information on placement opportunities can be obtained there. Students are visited by an academic from the programme team at least once

Postgraduate placements are normally a student initiated process for which the University will provide support.

20. Future careers: how the programme supports graduates’ future career development

All programmes in the School of Computing Science – their curricula and learning outcomes – have been designed with an emphasis on currency and the relevance to future employment.

- Campus Careers Offices can be found on each campus for advice, support and guidance – or go to [www.intra.mdx.ac.uk/annex/careers/coreered.htm](http://www.intra.mdx.ac.uk/annex/careers/coreered.htm)
- The majority of graduates are employed in IT posts relevant to the subject
- Over 20% of students pursue further postgraduate study or research
- The School has an Industrial Advisory Group which meets to advise and inform the School

The employer links with the School are encouraged and take part in a number of ways: by inviting practitioners from industry as guest speakers in lectures; through links with companies where students are employed as part of their Industrial placement and alumni both in the UK and overseas.
21. Other information

Middlesex University has formal links with 250 institutions world-wide, including student exchange agreements with more than 100 institutions. Currently a number of students both from the UK/EU and overseas take part in such exchanges. For further details please visit http://www.europe.mdx.ac.uk/ or contact Elli Georgiadou, the School of Computing Science coordinator of European Affairs & International Exchanges (email: e.georgiadou@mdx.ac.uk).

British Computer Society (BCS) accreditation will be sought.

BCS guidelines on Course Exemption and Accreditation can be found at http://www.bcs.org/

Please note: this specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve if s/he takes full advantage of the learning opportunities that are provided. More detailed information can be found in the student programme handbook and the University Regulations.