



PROGRAMME SPECIFICATION

Programme title:	BSc, MSci or MEng Computer Science
Final award (BSc, MA etc): (where stopping off points exist they should be detailed here and defined later in the document)	BSc, MSci, MEng
Cohort(s) to which this programme specification is applicable: (e.g. from 2008 intake onwards)	From 2008 intake onwards
Awarding institution/body:	University College London
Teaching institution:	University College London
Faculty:	Engineering Sciences
Parent Department: (the department responsible for the administration of the programme)	Computer Science
Departmental web page address: (if applicable)	Please see http://www.cs.ucl.ac.uk/students.html
Method of study: Full-time/Part-time/Other	Full-time
Criteria for admission to the programme:	Please see http://www.cs.ucl.ac.uk/admissions/ug.html
Length of the programme: (please note any periods spent away from UCL, such as study abroad or placements in industry)	Three academic years for the BSc. Four academic years for the MSci or MEng
Level on Framework for Higher Education Qualifications (FHEQ) (see Guidance notes)	'H' for the BSc 'M' for the MSci or MEng
Relevant subject benchmark statement (SBS) (see Guidance notes)	http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/computing.asp
Brief outline of the structure of the programme and its assessment methods: (see guidance notes)	Please see http://www.cs.ucl.ac.uk/teaching/ug/assess.htm
Board of Examiners:	Board of Examiners for Undergraduate Programmes in Computer Science

**Professional body accreditation
(if applicable):**

British Computer Society (BCS) and
Institution of Engineering and Technology
(IET)

Date of next scheduled
accreditation visit: Academic
Year 2010/2011

EDUCATIONAL AIMS OF THE PROGRAMME:

The BSc (3 year) and MSci/MEng (4 year) degrees in Computer Science aim to provide well-balanced programmes comprising (1) a core of essential skills, knowledge and understanding by means of compulsory courses in years 1 and 2, (2) advanced skills, knowledge and understanding by means of further core and option courses in years 3 and 4. These include group and individual projects.

The programmes aim to be intellectually challenging to even our most capable undergraduates.

The programme structures allows for students to take option courses from other departments, thus allowing them to develop knowledge and skills in other areas of interest (not necessarily computer science-related), and also fostering a multidisciplinary ethos.

PROGRAMME OUTCOMES:

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:

A: Knowledge and understanding

Knowledge and understanding of:

'How computers work' - Computer architecture and processors.

Programming computers, including programming languages, software tools and packages, computer applications, structuring of data and information.

Communications, networks and distributed systems, including security.

Theory, including computational complexity, mathematics and algorithmic design and analysis.

Design, development, testing and evaluation.

The wider context in which computers operate, including areas such as management and organization, professionalism and ethics, commercial and industrial exploitation.

Human-Computer interaction.

The opportunity to acquire knowledge of other, more specialised areas of computer science in the areas of, for example:

- vision, imaging and virtual environments;
- Intelligent and adaptive systems;
- networks, multimedia and distributed systems;
- usability and interaction design
- software systems engineering;

The opportunity to acquire and extend knowledge and understanding of other non-cognate disciplines by taking option courses from other dept in UCL.

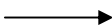


Teaching/learning methods and strategies:

Compulsory courses in years 1, 2 and 3 to cover core areas required.

Option courses in all years, providing the opportunity to specialise in certain themes, and or develop a broader range of skills and knowledge. The 4-year MSci/MEng programme allows for greater specialisation in advanced courses than the 3-year BSc.

Acquisition of knowledge and understanding is achieved via a range of methods including lecture presentations, discussions within class time, self-directed study using the course texts and other material provided; computer laboratory practical work; assessed and non-assessed coursework tasks (with feedback where appropriate), group and individual project work, tutorial support in years 1 and 2, revision for written examinations.



Assessment:

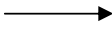
Testing of the knowledge base is through unseen and prior disclosure written examination, assessed coursework, assessed class tests, oral presentations (eg in the case of the group project), and the individual project report (for final year students).

B: Skills and other attributes		
<p>Intellectual (thinking) skills:</p> <p>The ability to relate one's knowledge and understanding of essential facts, concepts, principles and theories relating to computing and computer applications to areas including modeling; design, evaluation and testing; implementation.</p> <p>The ability to identify and solve problems.</p> <p>The ability to analyse and interpret.</p>	<p>→</p>	<p>Teaching/learning methods and strategies:</p> <p>Intellectual skills are developed through the teaching and learning programme outlined above. Each course aims to develop both technical competence and critical judgement and, where appropriate, will include problem-solving work.</p>
	<p>→</p>	<p>Assessment:</p> <p>The variety of assessment methods employed (see above) all place emphasis on the student's ability to demonstrate intellectual skills.</p>
C: Skills and other attributes		
<p>Practical skills (able to):</p> <p>Skill in programming computers</p> <p>Ability to specify, design and construct computer-based systems</p> <p>Ability to communicate effectively in writing, and verbally.</p>	<p>→</p>	<p>Emphasis in the core courses (year 1 and 2) on programming skills.</p> <p>Practical skills are developed through the teaching and learning programme outlined above. Where appropriate, courses aims to develop practical competence.</p> <p>All courses require communication skills, whether in programming, coursework or examination essay work.</p>
	<p>→</p>	<p>Assessment:</p> <p>The variety of assessment methods employed (see above) all place emphasis on the student's ability to demonstrate practical skills.</p>

D: Skills and other attributes

Transferable skills (able to):

- Effective information-retrieval skills
- Numeracy skills
- Effective use of general IT facilities
- Managing one's own learning and development, including time management and organisational skills
- To understand and communicate intellectually challenging ideas in writing
- To communicate effectively and clearly in discussions and oral presentations
- To assess the relevance and importance of initially unfamiliar ideas and to exercise critical judgement
- To work independently; and also as a member of a development team, recognising the different roles within a team and different ways of organising things
- To appreciate professional considerations: recognise the professional, moral and ethical issues involved in the exploitation of computer technology
- Appreciation of the need for continuing professional development, adaptability and the ability to learn.



Teaching/learning methods and strategies:

Transferable skills are developed throughout the teaching and learning programme outlined above.

Where appropriate, certain courses will aim particularly to develop specific areas. For example, professional issues teaching and learning is embedded in the curriculum in a compulsory 3rd year course.

All courses require communication skills, whether in programming, coursework or examination essay work.

Assessment:



The various assessment methods employed (see above) cover all except one of the transferable skills which this programme intends to develop

The exception is that the programmes do not currently assess students' appreciation of the need for continuing professional development, continuing adaptability and ability to learn.

The following reference points were used in designing the programme:

- the Framework for Higher Education Qualifications
<http://www.qaa.ac.uk/academicinfrastructure/benchmark/default.asp>;
- the programme specifications for UCL degree programmes in relevant subjects (where applicable);
- UCL teaching and learning policies;
- staff research.

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 and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each course unit/module can be found in the departmental course handbook. The accuracy of the information contained in this document is reviewed annually by UCL and may be checked by the Quality Assurance Agency.

Programme Organiser(s) Name(s):	Dr S M V Hailes (Director of Studies) and Dr G A Roberts (Undergraduate Tutor)
Date of Production:	December 2002
Date of Review:	28 April 2008
Date approved by Head of Department:	TBA
Date approved by Chair of Departmental Teaching Committee:	TBA
Date approved by Faculty Teaching Committee	TBA