



Programme Specification Postgraduate

Applicable to postgraduate programmes

Please click [here](#) for guidance on completing this specification template.

Part A: Programme Summary Information

1.	Title of programme:	Advanced Computer Science	
2.	Programme Code:	CSAD	
3.	Entry Award(s):	Credit:	Level:
	<input type="checkbox"/> MA		
	<input checked="" type="checkbox"/> MSc	180	Level 7, of which up to 30 credits may be at level 6
	<input checked="" type="checkbox"/> PGDip	120	Level 7, of which up to 30 credits may be at level 6
	<input checked="" type="checkbox"/> PGCert	60	Level 7, of which up to 15 credits may be at level 6
	<input type="checkbox"/> DPS		
	<input type="checkbox"/> CPS		
	<input type="checkbox"/> Other (please specify below:		
4.	Exit Awards:	Credit:	Level:
	<input checked="" type="checkbox"/> PGDip	120	Level 7, of which up to 30 credits may be at level 6
	<input checked="" type="checkbox"/> PGCert	60	Level 7, of which up to 15 credits may be at level 6
	<input type="checkbox"/> CPS		
Exit awards will automatically bear the name of the entry award. If an exit award is to be unnamed (i.e. it will show only the qualification achieved) or if it is to have a different name from the entry qualification you must indicate this below:			
5.	Date of first intake:	September 2007	

6.	Frequency of intake:	Annually in September/October
7.	Duration and mode of study:	Full time, 12 months
8.	Applicable framework:	University Framework for Postgraduate Modular Provision
	Framework exemption required: Please indicate the applicable boxes:	<input checked="" type="checkbox"/> No (please go to section 9) <input type="checkbox"/> Yes (please provide a brief summary below)
	Date exemption approved by AQSC:	
9.	Applicable Ordinance:	General Ordinance for Module Masters' Degree, Postgraduate Diplomas and Postgraduate Certificates
	New/revised Ordinance required: Please indicate the applicable boxes:	<input checked="" type="checkbox"/> No (please go to section 10) <input type="checkbox"/> Yes (please provide a brief summary below)
	Date new/revised Ordinance approved by Council:	
10.	Faculty:	Faculty of Science and Engineering
11:	Level 2 School/Institute:	School of Electrical Engineering, Electronics, and Computer Science
12.	Level 1 unit:	Department of Computer Science
13.	Campus:	Liverpool campus
14.	Other contributors from UoL:	School of Environmental Sciences
15:	Teaching other than at UoL:	None
16:	Director of Studies:	Dr Alexei Lisitsa
17:	Board of Studies:	Board of Studies in Computer Science
18:	Board of Examiners:	The Computer Science Postgraduate Boards of Examiners
19.	External Examiner(s): Name Institution	Dr Andrew Fish University of Brighton

	Position	<input type="text"/>
20.	Professional, Statutory or Regulatory body:	BCS, The Chartered Institute for IT
21:	QAA Subject benchmark Statements(s):	Masters degrees in Computing
22.	Other reference points:	BCS Course Guidelines and Course Accreditation Criteria
23.	Fees:	As per the University's standard PG fees structure
24.	Additional costs to the student:	None
25:	AQSC approval:	July 2006

Part B: Programme Aims & Objectives

26. Aims of the Programme

No. Aim:

1	To provide postgraduate students of Computer Science with a deep and systematic understanding (beyond that which they would have obtained as part of their undergraduate study) of selected issues at the forefront of current research in the academic discipline of Computer Science.
2	To provide sufficient depth of knowledge of Computer Science to provide an effective basis for students to continue to a research degree either at The University of Liverpool or elsewhere.
3	To provide a broad-based understanding of current research issues in Computer Science.
4	To provide a broad-based understanding of current research issues in Computer Science.
5	To enable students to participate in current research.
6	To facilitate an understanding of (research) project management and control.

27. Learning Outcomes

No. Learning outcomes – Master's degree

1	A deep and systematic understanding of the academic discipline of Computer Science.
2	A critical awareness of current problems and research issues in selected areas of Computer Science
3	A comprehensive understanding of current advanced scholarship and research in selected areas of Computer Science and how this may contribute to the effective design and implementation of relevant computer based systems.
4	An ability to consistently apply knowledge concerning current research issues in computer science in an original manner and produce work that is at the forefront of the developments in the domain of the programme of study.

5	An understanding of how established techniques of research and enquiry are used to extend, create and interpret knowledge in Computer Science.		
6	A conceptual understanding sufficient to: (i) evaluate critically current research and advanced scholarship in Computer Science, and (ii) propose possible alternative directions for further work.		
Learning Outcomes			
No. Learning outcomes – Postgraduate Diploma			
1	A deep and systematic understanding of the academic discipline of Computer Science.		
2	A critical awareness of current problems and research issues in selected areas of Computer Science.		
3	A comprehensive understanding of current advanced scholarship and research in selected areas of Computer Science and how this may contribute to the effective design and implementation of relevant computer based systems.		
4	An ability to consistently apply knowledge concerning current research issues in Computer Science in an original manner and produce work that is at the forefront of the developments in the domain of the programme of study.		
5	An understanding of how established techniques of research and enquiry are used to extend, create and interpret knowledge in Computer Science.		
Learning Outcomes			
No. Learning outcomes – Postgraduate Certificate			
1	A deep and systematic understanding of the academic discipline of Computer Science.		
2	A critical awareness of current problems and research issues in selected areas of Computer Science.		
27a. Mapping of subject-based learning outcomes:			
Learning outcome No.	Module(s) in which this will be delivered	Mode of assessing achievement of learning outcome	PSRB/Subject benchmark statement (if applicable)
1	COMP305 COMP310, COMP315 ELEC415, ELEC319 ELEC475 COMP317, COMP318 COMP557, COMP559 COMP516 COMP702	Class tests/Written examination Written examinations Practical assessments/ Written examination Essay/Class tests/Presentation Practical assessments/ Demonstration/ Presentation/Dissertation	
2	COMP521	Class test/Written Examination	

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	<p>COMP522, COMP523 COMP524, COMP525 COMP526, COMP527 COMP528, COMP532 COMP557 COMP559</p> <p>ENVS456, ENVS563</p>	<p>Practical assessments/ Written examinations</p> <p>Practical Assessments</p>	
3	<p>COMP305, COMP317 COMP318, COMP522 COMP523, COMP524 COMP525, COMP526 COMP527, COMP528 COMP532</p> <p>COMP310, COMP315 ELEC415, ELEC319 ELEC475</p> <p>COMP521</p> <p>ENVS456, ENVS563</p>	<p>Practical assessments/ Written examination</p> <p>Written examinations</p> <p>Class test/Written Examination</p> <p>Practical Assessments</p>	
4	<p>COMP310, COMP315 ELEC415, ELEC419 ELEC475</p> <p>COMP317, COMP318 COMP522. COMP523 COMP524. COMP525 COMP526. COMP527 COMP528, COMP532 COMP557, COMP559</p> <p>COMP516</p> <p>COMP521</p> <p>COMP702</p> <p>ENVS456, ENVS563</p>	<p>Written examinations</p> <p>Practical assessments/ Written examination</p> <p>Essay/Class tests/ Presentation</p> <p>Class test/Written Examination</p> <p>Practical assessments/ Demonstration/ Presentation/Dissertation</p> <p>Practical Assessments</p>	
5	<p>COMP318, COMP522 COMP523, COMP524 COMP525, COMP526 COMP527, COMP528 COMP532, COMP557 COMP559 COMP516</p>	<p>Practical assessments/ Written examinations</p> <p>Essay/Class tests/ Presentation</p>	

	COMP521, COMP305	Class test/Written Examination	
6	COMP516	Essay/Class tests/Presentation	
	COMP521	Class test/Written Examination	
	COMP522, COMP523 COMP524, COMP525 COMP526, COMP527 COMP528, COMP557 COM559	Practical assessments/ Written examination	
	COMP702	Practical assessments/ Demonstration/ Presentation/Dissertation	

28. Skills and Other Attributes

No. Skills and attributes:

1	Deal with complex issues at the forefront of the academic discipline of Computer Science in a manner, based on sound judgements, that is both systematic and creative; and be able to communicate conclusions clearly to both specialists and non-specialists.
2	Demonstrate self-direction and originality in tackling and solving problems within the domain of Computer Science, and be able to act autonomously in planning and implementing solutions in a professional manner.
3	Continue to advance their knowledge and understanding, and to develop new skills to a high level, with respect to continuing professional development as "a self-directed life-long learner" across the discipline of Computer Science.
4	Make use of the qualities and transferable skills necessary for employment requiring: (a) the exercise of initiative and personal responsibility, (b) decision making in complex and unpredictable situations, and (c) the independent learning ability required for continuing professional development.
5	Participate within the professional, legal and ethical framework within which they would be expected to operate as professionals within the IT industry.

28a. Mapping of skills and other attributes:

Skills and other attributes No.	Module(s) in which this will be delivered and assessed	Learning skills, research skills, employability skills	Mode of assessing achievement of the skill or other attribute
1	COMP317, COMP522 COMP523, COMP524 COMP525, COMP526 COMP527, COMP528 COMP532 COMP521, COMP305	Resarch skills, employability skills Research skills, employability skills	Practical assessments/ Written examination Class test/Written Examination

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	COMP702	Learning skills, Research skills, Employability skills	Practical assessments/ Demonstration/Presentation/ Dissertation
2	COMP317, COMP318 COMP522, COMP523 COMP524, COMP525 COMP526, COMP527 COMP528, COMP532	Research skills, Employability skills	Practical assessments/ Written examination
	COMP521, COMP305	Research skills, Employability skills	Class test/Written Examination
	COMP702	Learning skills, Research skills, Employability skills	Practical assessments/ Demonstration/Presentation/ Dissertation
	ELEC475		Written examination
	ENVS456, ENVS563	Research skills, Empolyability skills	Practical Assessments
3	COMP310, COMP315, ELEC415, ELEC419, ELEC475	Research skills, Employability skills	Written examinations
	COMP317, COMP522 COMP523, COMP524 COMP525, COMP526 COMP527, COMP528 COMP532	Research skills, Employability skills	Practical assessments/ Written examination
	COMP516	Learning skills, Research skills, Employability skills	Essay/Class tests/Presentation
	COMP521	Research skills, Employability skills	Class test/Written Examination
	COMP702	Learning skills, Research skills, Employability skills	Practical assessments/ Demonstration/Presentation/ Dissertation
	ENVS456, ENVS563	Research skills, Employability skills	Practical Assessments
4	COMP305	Research skills, Employability skills	Class test/Written Examination

	COMP318, COMP523 COMP528	Research skills, Employability skills	Practical assessments/ Written examination
	COMP516	Learning skills, Research skills, Employability skills	Essay/Class tests/Presentation
	COMP702	Learning skills, Research skills, Employability skills	Practical assessments/ Demonstration/Presentation/ Dissertation
	ENVS456, ENVS563	Research skills, Employability skills	Practical Assessments
5	COMP310, COMP315	Research skills, Employability skills	Written examinations
	COMP318, COMP522	Learning skills, Research skills	Practical assessments/ Written examinations
	COMP516	Employability skills Learning skills	Essay/Class tests/Presentation
	COMP702	Research skills, Employability skills	Practical assessments/ Demonstration/Presentation/ Dissertation

29. Career opportunities:

The MSc in Advanced Computer Science is directed at graduates with a previous Computer Science or IT degree. It is intended that the programme of study will underpin and enhance the current knowledge of students and their understanding of issues at the forefront of the discipline of Computer Science. The expectation is that this enhancement, together with the skills they will obtain and exercise on the programme, will provide a basis for their further career development towards senior technical and managerial positions in the IT industry, and towards specialisation in the field of Computer Science related research and development.

Job titles and their definitions are not standardised within the IT industry and in a fast changing world employers demand maximum flexibility. However the following are some current options: database administrator, information systems manager, applications developer, IT consultant, network engineer and systems designer. This just gives a flavour; there are many more.

Part C: Entrance Requirements

30. Academic Requirements:

The MSc in Advanced Computer Science programme is intended for graduates with a Computer Science (or closely related) BSc Honours degree. With respect to applicants who have computing related BSc Honours degrees, but where those degrees provide only partial coverage of the content and/or do not achieve the standard of a UK Computer Science BSc degree such applicants will be considered on a case-by-case basis and an appropriate selection of modules identified.

Overseas qualifications will be considered using NARIC to verify their nature and standard.

For 2014-15 entry, candidates from non-English speaking countries are expected to have IELTS ≥ 6.5 with minimum 5.5 in each component (other English Language Tests are also accepted, see [Guidance on the University website](#) for details).

31. Work experience:

It is University Policy to encourage mature entry. Relevant work experience will be taken into consideration. Each case is considered on merit, but in such cases work experience is taken into account.

32. Other requirements:

None

Part D: Programme Structure

33. Programme Structure:

The programme is divided into three, equally weighted semesters. The first two, which are run concurrently with the normal undergraduate semesters, comprise taught modules to a total of 60 credits per semester. An extended research based project, culminating in a dissertation, is undertaken full time over the summer period. This counts for a further 60 credits, making a total of 180.

At least 90 credits of the 120 taught credits available in the first two semesters must comprise level 7 modules. The remaining 30 may include selected level 6 modules, taken from the Department's 3rd year module list, with the proviso that a graduates of the University of Liverpool cannot elect to take a level 6 module if they have already taken that module as part of their undergraduate study. The modules available in the MSc in Advanced Computer Science programme are as follows (‘•’ indicates a required module)

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Module Code	Module Title	Credit Value	Level	Co-requisites	Pre-requisites	Pre-requisite for
Semester 1						
COMP516	Research Methods in Computer Science (●)	15	7	-	First degree in Computer Science or closely related subject	COMP524 COMP525 COMP702
<i>Options totalling 45 credits from the following seven modules provided pre-requisites are satisfied (Note that ELEC415 and ELEC319 must be taken as a pair)</i>						
COMP521	Knowledge Representation	15	7	-	First degree in Computer Science or closely related subject	-
COMP522	Privacy and Security	15	7	-		-
COMP523	Advanced Algorithmic Techniques	15	7	-		-
COMP528	Multicore and Multi-Processor Programming	15	7	-		-
COMP557	Optimisation	15	7			
COMP305	Biocomputation	15	6	-	-	-
ELEC319	Image Processing	7.5	7	ELEC415	Mathematics: complex numbers and algebra, Laplace transforms, matrix algebra, Fourier series, partial differentiation, probability, Engineering: time and frequency domain response, concept of filtering.	-
ENVS563	Geographical Information Systems	15	7	1	-	-
Semester 2						
<i>Plus options totalling 60 credits from the following eleven modules provided pre-requisites are satisfied (Note that ELEC415 and ELEC319 must be taken as a pair)</i>						

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COMP310	Multi-Agent Systems	15	6	-	-	-
COMP315	Technologies for E-Commerce	7.5	6	-	Understanding communication principles to level 6. Basic understanding of calculus, matrices and probabilities	-
COMP317	Semantics of Programming Languages	15	6	-	-	-
COMP318	Advanced Web Technologies	15	6	-	-	-
COMP524	Safety and Dependability	15	7	-	COMP516	COMP516
COMP525	Reasoning about Action and Change	15	7	-	COMP516	-
COMP526	Applied Algorithmics	15	7	-	COMP516	COMP516
COMP527	Data Mining and Visualisation	15	7	-	COMP516	COMP516
COMP532	Machine Learning and BioInspired Optimisation	15	7	-	-	-
COMP559	Computational Auctions and Mechanism Design	15	7	-	COMP523 COMP557	-
ELEC415	Information Theory and Coding	7.5	7	ELEC319	-	-
ELEC475	Computational Intelligence	15	7	-	Basic knowledge of UG mathematics	-
ENVS456	Web Mapping and Analysis	15	7	-	-	-
Summer						
COMP702	MSc Project (●)	60	7	-	Taught part of MSc	-
<p>Note: in exceptional circumstances, and with the approval of the programme Director of Studies, alternative modules available within the Computer Science provision may be substituted for optional and required modules, except COMP516 and COMP702.</p>						

34. Industrial placement/work placement/year abroad:

N/A

35. Liaison between the Level 2 Schools/Institutes involved:

School of Environmental Sciences provides optional modules ENVS456 Web Mapping and Analysis and ENVS563 Geographical Information Systems

Part E: Learning, Teaching and Assessment Strategies

36. Learning, Teaching and Assessment Strategies:

- The MSc Advanced Computer Science programme complies with:
- a. University of Liverpool Policy on Standards and Quality in Learning and Teaching
 - b. University of Liverpool Learning and Study Skills Strategy
 - c. University of Liverpool Code of Practice on Assessment
(all at http://www.liv.ac.uk/tqsd/pol_strat_cop/index.htm)
 - d. Department of Computer Science Learning and Teaching Strategy:
<http://www.csc.liv.ac.uk/department/LTAS.html>

The broad aim of the Department in its postgraduate teaching is to focus on depth of study, and critical awareness and evaluation, in selected areas of current research and advanced scholarship within the academic discipline of Computer Science; while at the same time ensuring a more general all round ability. In addressing these aims, the postgraduate MSc programmes in Computer Science include a significant amount of material on the theory, design and implementation of computer systems while at the same time focussing on particular specialist areas of research within the academic discipline of Computer Science.

The Department has made use of techniques associated with e-learning for many years. In this programme (as in all others), lecture material, assignments, and model solutions are all made available online. Continually assessed work is often submitted electronically, allowing plagiarism detection to be performed automatically. A computer-based system is also used for all attendance monitoring at lectures and tutorials

36a. Learning, Teaching and Assessment methods:

The learning and teaching strategy for the programme comprises a mixture of formal lectures, practical and tutorial sessions, and student centred learning, and project work. Additional support is from WWW based materials, selected textbooks and directed reading of research literature (taken from scientific journals and conference proceedings). The programme operates under the approved teaching and learning strategy of the Department of Computer Science.

The programme is assessed by a combination of traditional written examinations and continuous assessment, including marked essays and computer programming problems. In more detail, modules in the Computer Science programme are assessed as follows (according to the nature of the module):

- i. Examination only where the assessment is based entirely on examination, which is held at the end of the semester in which the module is taught.
- ii. Continuous Assessment.
- iii. Examination and continuous assessment.

The MSc project includes an element of assessment by oral, poster and/or demonstration presentation of project work. The mark produced for a module is subject to scrutiny by the Computer Science Postgraduate Boards of Examiners including the External Examiner for this programme. Decisions on progress are also controlled by the university's published regulations.

The Department currently does not conduct any "viva voce" examinations.

Details of the assessment method for each module can be obtained from the Department of Computer Science Student Handbook. For information on adjustments to examination arrangements for disabled students see Appendix K of the University Code of Practice on Assessment.

37. Assessment information for students:

Code of Practice on Assessment

The University has a Code of Practice on Assessment which brings together the main institutional policies and rules on assessment. The Code is an authoritative statement of the philosophy and principles underlying all assessment activities and of the University's expectations in relation to how academic subjects design, implement and review assessment strategies for all taught programmes of study.

The Code of Practice includes a number of Appendices which provide more detail on the regulations and rules that govern assessment activity; these include:

- The University marks scale, marking descriptors and qualification descriptors;
- The framework for modular, postgraduate programmes;
- Information about students' progress, including guidance for students;
- The procedure for assessment appeals;
- Regulations for the conduct of exams;
- The University's policy on making adjustments to exam arrangements for disabled students.
- The code of practice relating to external examining (see also below)
- The Academic Integrity Policy, which covers matters such as plagiarism and collusion and includes guidance for students;
- The policy relating to mitigating circumstances which explains what you should do if you have mitigating circumstances that have affected assessment; and
- The policy on providing students with feedback on assessment.

Please click [here](#) to access the Code of Practice on Assessment and its appendices; this link will also give you access to assessment information that is specific to your cohort:

A summary of key assessment information is also available in the 'Your University' handbook.

Marking criteria:		
Marking on level 6 modules offered by the Department of Computer Science is carried out using the following marking descriptors:		
	For practical exercises and projects	For exercises, presentations, projects, and written examinations:
90-100%	Displays an <i>exceptional</i> degree of originality and creativity and/or <i>exceptional</i> analytical and problem solving skills. Solution must have novel aspects. The methodology employed is well-developed and correct.	Shows <i>critical</i> understanding of current knowledge. For level 6 this should include relevant recent research papers. Perceptive, focused treatment of all issues/questions presented in a critical and scholarly way.
80-89%	Displays a level of originality and creativity and/or the ability to suggest realistic solutions to novel problems. The methodology employed is well-developed and correct.	Evidence of wide reading. For level 6 this should include relevant research papers and books. Perceptive, focused treatment of all issues/questions presented in a critical and scholarly way.
70-79%	Demonstrates ability to analyse, interpret and organise information to produce coherent accounts or solve complex problems. All aspects of a suitable methodology evident and used correctly.	Comprehensive knowledge and understanding of the subject together with the ability to put the work into context and to critically evaluate selected aspects of the work. Arguments/answers will be clear, competently structured, and accurate.
60-69%	Demonstrates ability to analyse, interpret and organise information to produce coherent accounts or solve relatively complex problems. Use of a suitable methodology evident and used correctly, with minor omissions.	Good knowledge and understanding of the subject, with no major gaps or omissions, but minor gaps or omissions may occur. Arguments/answers will be clear, competently structured, and largely accurate.

	50-59%	Displays ability to analyse, interpret and organise information to produce coherent accounts or solve well-defined problems of some scope. Most aspects of a suitable methodology evident and used correctly, some omissions occur but without negative impact on the result of the work.	Satisfactory knowledge and understanding of the essentials of the subject, with an ability to integrate information into a clear, well-structured account, but lacking in breadth or depth, or with some significant aspects omitted. Arguments/answers must be clear, although they may not be well-developed or reflect a wider appreciation of the subject. Some errors and omissions are likely to be present.
	40-49%	Demonstrates an ability to solve limited, well-defined problems of a familiar type. Most aspects of a suitable methodology evident, but minor flaws in its use or omissions with some negative impact on the result of the work.	General knowledge and understanding of the subject but very limited in depth or breadth. Arguments/answers are likely to be somewhat lacking in structure. There are likely to be errors and omissions and the evidence provided to support arguments will be very limited.
	35-39%	Fails to demonstrate an ability to solve limited, well-defined, problems of a familiar type. Aspects of a suitable methodology evident, but flaws in its use or omissions which negatively impact on the result of the work.	Knowledge and understanding of the subject are fragmentary, some aspects showing a very basic level of understanding but other aspects displaying fundamental errors. Arguments/answers are lacking in structure. There are errors and omissions and the evidence provided to support arguments is very limited.
	30-34%	Fails to demonstrate an ability to solve simple, well-defined problems of a familiar type. Lack of the use of a suitable methodology or flaws in its use which negatively impact on the result of the work.	Knowledge and understanding of the subject are fragmentary, with an insufficient number of aspects showing a very basic level of understanding and too many aspects displaying fundamental errors and omissions. Arguments/answers are lacking in structure. There are errors and omissions and the evidence provided to support arguments is very limited.
	20-29%	Fails to demonstrate an ability to solve simple, well-defined, problems of a familiar type under guidance. Serious lack of the use of a suitable	Very limited range of knowledge with many important gaps and omissions. Shows incomplete understanding with numerous errors of interpretation. Arguments/

	methodology or flaws in its use which negatively impact on the result of the work.	answers have little structure, contain serious errors, and there is no support for arguments.
10-19%	Little evidence of the use of a suitable methodology.	Shows only the most limited and fragmentary knowledge of the subject with little or no understanding of essential principles and concepts. Work is likely to be unstructured and ill-presented. Arguments/ answers are only loosely related to issues/questions or only cover a seriously inadequate part of the issues/questions.
0-9%	No evidence of the use of a suitable methodology.	Virtually devoid of any evidence of knowledge or understanding of the subject. No or almost no arguments/answers.

Marking on level 7 modules offered by the Department of Computer Science is carried out using the following marking descriptors:

Grade	Description	Key features
Outstanding 80%+	Outstanding work. Factually almost faultless; clearly directed; logical; comprehensive coverage of topic; strong evidence of reading/research outside the material presented in the programme; substantial elements of originality and independent thought; very well written.	Distinction Grade: Originality; Well-directed independent thought
Excellent 70%-79%	Excellent work. Logical; enlightening; originality of thought or approach; good coverage of topic; clear, in-depth understanding of material; good evidence of outside reading/research; very well written and directed.	
Very Good 60%-69%	Very Good work. Logical; thorough; factually sound (no serious errors); good understanding of material; evidence of outside reading/research; exercise of critical judgement; some originality of thought or approach; well written and directed.	Pass Grade: Essentially correct and complete: Competence; Critical judgement

	<p>Good 50%-59%</p>	<p>Good work. Worthy effort, but undistinguished outcome. Essentially correct, but possibly missing important points. Largely derived from material delivered in the programme, but with some evidence of outside reading/research; some evidence of critical judgement; some weaknesses in expression or presentation.</p>	
	<p>Marginal Fail 40%-49%</p>	<p>Inadequate work. Incomplete coverage of topic; evidence of poor understanding of material; Poor presentation; lack of coherent argument.</p>	<p>Compensatable Fail: Significant weaknesses, but serious effort</p>
	<p>Fail 0%-39%</p>	<p>Unsatisfactory work: Serious omissions; significant errors/misconceptions; poorly directed at targets; evidence of inadequate effort.</p>	<p>Fail: Little or no achievement of learning outcomes</p>

38. Student representation and feedback:

Student representation and feedback are facilitated through:

1. The University Academic Advisor scheme.
2. The Department's Postgraduate Staff-Student Liaison Committee (which operates in accordance with the University's code of practice on student representation).
3. Module questionnaires completed by students at the end of each taught module.
4. Programme questionnaires completed by students at the end of their studies.

Full details can be found in the Department of Computer Science Student Handbook.

Part F: Status of Professional, Statutory or Regulatory Body Accreditation

39. Status of Professional, Statutory or Regulatory Body Accreditation:

The programme is accredited to 2019 by BCS, the Chartered Institute for IT for the purposes of fully meeting the academic requirement for registration as Chartered IT Professional Further Learning and partially meeting the academic requirement for registration as Chartered Engineering and as Chartered Scientist.

The programme has also been awarded the Euro-Inf Master Quality Label by BCS, The Chartered Institute for IT, for intakes 2015-2019

Part G: Diversity & Equality of Opportunity and Widening Participation

40. Diversity & Equality of Opportunity and Widening Participation:

The programme design, structure and content are consistent and compliant with the University's Diversity and Equality of Opportunity Policy.

ANNEX 1

Annex Of Modifications Made To The Programme

Please complete the table below to record modifications made to the programme.

Description of modification (please include details of any student consultation undertaken or confirm that students' consent was obtained where this was required)	Minor or major modifications	Date approved by FAQSC	Date approved by AQSC (if applicable)	Cohort affected
Changes for 2011-12: COMP528 is a new module available in the second semester	Minor			
2014-15: Addition of ENVS563 and ENVS456 as optional modules.	Minor			
2015-16: Addition of COMP532, COMP557 and COMP559 as optional modules	Minor			