

Changes to this document are in red. These changes relate to the creation of the ITMB programme

LOUGHBOROUGH UNIVERSITY

Regulations for the Honours Degree Programmes in

Computer Science

Computer Science and E-business

Computer Science and Artificial Intelligence

Computing and Management

Information Technology Management for Business

Information Technology & Mathematics

applicable for students enrolled in Part A from session 2006/7

These Programme Regulations should be read in conjunction with the [Regulation XX](#) and the relevant [Module Specifications](#). Notice of change will be given by the Department responsible for the programmes.

1 Structure

1.1 Administrative responsibility

Administrative responsibility for the Programmes rests with the *Department of Computer Science*.

1.2 Degree Awarded

The Programmes lead to the following degrees: (the Y indicates whether the degree is available at BSc or MComp)

Programme	BSc	MComp
Computer Science (CS)	Y	Y
Computer Science + Artificial Intelligence (CS+AI)	Y	Y
Computer Science + E-Business (CS+EB)	Y	Y
Computing and Management (C+M)	Y	
Information Technology Management for Business (ITMB)	Y	
Information Technology and Mathematics (IT+M)	Y	

The abbreviations CS, CS+AI, CS+EB, C+M, ITMB, IT+M will be taken throughout this document to expand as in the table above.

The CS, CS+AI, CS+EB programmes are collectively referred to as *single honours* programmes, the remaining programmes as *joint honours*. All programmes have the possibility of a year's professional training leading to the additional DPS qualification.

1.3 Duration

BSc programmes have a duration of either 6 semesters, or 8 semesters if students undertake professional training.

MComp programmes have a duration of either 8 semesters or, 10 semesters if students undertake professional training.

In both cases the professional training leads to the award of the Diploma in Professional Studies and occurs between Part B and Part C (known as Part I).

2 Content - Introduction

The programmes consist of a core computing component and an additional specialist component:

Programme	Core Component	Specialist Component
Computer Science	Computing Core	Computer science specialist
Computer Science + E-business	Computing Core	CS + E-business specialist
Computer Science + AI	Computing Core	CS + AI specialist
IT + Mathematics	Computing Core	Mathematics specialist
Computing and Management	Computing Core	Management specialist
IT Management for Business	Computing Core	Management specialist

3 Content - Parts A and B

3.1 Computing Core Component

This component is taken by ALL programmes described in these regulations.

3.1.1 Part A

In Part A all Computing Core modules are compulsory.

Code	Title	Weight	Semester
COA101	Essential Skills for Computing	10	1
COA122	Programming for the WWW	20	1
COA124	Computer Architectures	10	2
COA123	Server Side Programming	10	2
COA281	Object Oriented Requirements Analysis	10	2

3.1.2 Part B

In Part B the following modules are taken as part of the Computing Core

Code	Title	Weight	Semester	Note
COB231	Operating Systems, Networks and the Internet 1	10	1	compulsory
COB131	Databases	10	1	compulsory
COB290	Team Projects	20	1+2	compulsory
COB132	Object Oriented Systems Design and HCI	10	2	compulsory
COB254	Programming for Financial Applications	10	2	1
COB255	Programming for Scientific Applications	10	2	1
COB232	Operating Systems, Networks and the Internet 2	10	2	1
COB301	IT Systems Planning	10	2	2

Note 1: Candidates (except those studying ITMB) should select one of these modules as an option. COB232 is not available to CS and CS+AI candidates as an option in their core. It is available to these candidates in their specialist component.

Note 2: This module (COB301) must be taken and may only be taken by ITMB students.

3.2 Computer Science Specialist Component

3.2.1 Part A

All modules in Part A of this component are compulsory

Code	Title	Weight	Semester
COA107	Logic and Functional Programming	20	1
ISA401	Introduction to e-Business	10	1
COA220	Mathematics for Computer Science	10	2
COA256	Object-Oriented and Programming and Algorithms	20	2

3.2.2 Part B

All modules in Part B of this component are compulsory

Code	Title	Weight	Semester
COB251	Programming Languages	10	1
COB150	Formal Specification	10	1
COB107	AI Methods	20	1+2
COB120	Computer Graphics 1	10	2
COB232	Operating Systems and Networks 2	10	2

3.3 Computer Science and E-business Specialist Component

3.3.1 Part A

As for CS - see section 3.2.1

3.3.2 Part B

All modules in Part B of this component are compulsory

Code	Title	Weight	Semester
ISB301	Informatics and Systems	10	1
ISB304	Information and Knowledge Management	10	1
COA101	AI Methods	20	1+2
ISB401	Fundamentals of Marketing	10	2
ISB402	E-business Management and Strategy	10	2

3.4 Computer Science and Artificial Intelligence Specialist Component

3.4.1 Part A

As for CS - see section 3.2.1

3.4.2 Part B

As for CS - see section 3.2.2

3.5 Mathematics Specialist Component

This component is part of the IT and Mathematics programme.

3.5.1 Part A - Introductory Modules

All modules in Part A of this component are compulsory

Code	Title	Weight	Semester
MAA160	Computer Applications in Mathematics	10	1

MAA340	Calculus	20	1+2
MAA342	Linear Algebra	20	1+2
MAA270	Introductory Statistics	10	2

3.5.2 Part B - Degree Modules

Code	Title	Weight	Semester	Note
MAA141	Geometry, Vectors and Complex Numbers	10	1	compulsory
MAA155	Introduction to Applied Mathematics	10	1	compulsory
MAA241	Sequences and Series	10	2	compulsory
MAA255	Differential Equations	10	2	compulsory
MAA145	Mathematical Thinking	10	1	1
MAB160	Numerical Methods 1	10	1	1
MAB170	Probability Theory	10	1	1
MAA245	Numbers	10	2	1
MAB260	Numerical Methods 2	10	2	1
MAB270	Statistical Modelling	10	2	1

Note 1: Candidates should select 20 credits of options from the indicated modules.

3.6 Management Specialist Component

This component is part of the Computing and Management programme and the IT Management for Business programme.

3.6.1 Part A

Code	Title	Weight	Semester	Note
BSA525	Financial Reporting	10	1	compulsory
BSA505	Organisational Behaviour	10	1	compulsory
BSA080	Quantitative Methods for Business (A)	10	1	1
BSA081	Quantitative Methods for Business (C)	10	1	1
BSA526	Accounting for Managers	10	2	compulsory
BSA572	Statistics and Modelling for Management	10	2	compulsory
BSA506	Management of Human Resources	10	2	compulsory

Note 1: Students will take either BSA080 or BSA081 depending on module pre-requisites.

3.6.2 Part B

(changes below are renaming of the modules)

Code	Title	Weight	Semester
BSB555	Organisational Behaviour B	10	1

BSB560	Principles of Marketing	10	1
BSB570	Decision Making and Support Tools	10	1
BSB550	Company Finance	10	2
BSB562	The Marketing Mix	10	2
BSB572	Management Science Methods	10	2

4 Content - Part C

Part C consists of a project work, some compulsory modules and some optional modules. Candidates should restrict their choice of modules to a maximum of 70 credits in each semester to a total of 120 in the part. When making this calculation candidates should consider a 30-credit project module to be split 10 credits in semester one and 20 in semester two, and a 20-credit project module to be split 10 credits in each semester.

In the tables in this section the symbols X and o mean compulsory and optional respectively.

4.1 Project Modules

Candidates take one project module according to the table below:

Code	Title	Weight	CS	CS+EB	CS+AI	C+M	ITMB	IT+M	Note
COC253	Computing Project	30				o		o	1
COC258	Web Project	20				o		o	1
COC251	Computer Science Project	30	X	X					
COC257	AI Project	30			X				
COC259	ITMB Project	30					X		

Note 1: Students with a choice of COC253 and COC258 *must* take one of these options

4.2 Other Modules

The table below indicates which modules are available and whether these are compulsory (marked as X) or optional (marked as o). For some programmes there are further restrictions on the selection of optional modules. These are detailed in section 6.1.

Module				Programme					
Code	Title	Weight	Sem	CS	CS+EB	CS+AI	C+M	ITMB	IT+M
Modules from Computer Science									
COC001	Computer Vision	10	1	o	o	X			
COC002	Robotics	10	1	o	o	X			
COC281	Software Project Management	10	1	X	X	X	X	X	X
COC004	E-business Systems Planning	10	1		o			X	

COC003	Internet Marketing	10	1		o				
COC105	Advanced Computer Architectures	10	1	o	o	o	o	o	o
COC104	Algorithm Analysis	10	1	o		o			
COC101	Natural Language & Speech Systems	10	1	o	o	X	o	o	o
COC180	Implementation of Programming Languages	10	1	o	o	o			
COC200	Knowledge-based Systems	10	1				o	o	o
COC221	Microprocessor Applications	10	1	o	o	o			
COC222	Multimedia Networking	10	1	o	o	o			
COB122	2d Computer Graphics	10	1				o	o	o
COC130	Database Systems	10	1	o	o	o	o	o	o
COC102	Advanced Artificial Intelligence Systems	10	2	o	o	X			
COC103	Advanced Operating Systems	10	2	o	o	o			
COC123	3d Computer Graphics	10	2	o	o	o			o
COC131	Data Mining	10	2	o	o	o	o	o	o
COC140	E-Commerce Security	10	2	o	o	o	o	o	o
COC170	Advanced Human Computer Interaction	10	2	o	o	o	o	X	o
COC250	Parallel Computing	10	2	o	o	o			
COC290	Ontologies	10	2	o	o	o	o	o	o
COB232	Operating Systems, Networks and the Internet 2	10	2				o	o	o
Modules from Information Science				CS	CS+EB	CS+AI	C+M	ITMB	IT+M
ISC035	Legal and Professional Issues in Computing	10	2	X	X	X	X	X	X
ISC025	Information and Knowledge Management in the N.H.S.	10	1		o				

ISC330	Culture and Change Management	10	1			o			
ISC318	Information and Knowledge Management 2	10	2			o			
ISC329	Human Information Processing	10	2			o			
ISC332	Competitor Intelligence	10	2			o			
Modules from the Business School				CS	CS+EB	CS+AI	C+M	ITMB	IT+M
BSC570	Strategic Management	20	1				X	X	
BSC575	Leadership and Interpersonal Skills	10	2				X	X	
BSC040	Sources of Funds/Financial Packages	10	1				o	o	
BSC050	International Business and Multinational Companies	10	1				o	o	
BSC082	Contemporary Issues in Human Resource Management	10	1				o	o	
BSC080	Career Management	10	1				o	o	
BSC085	The Changing Work Organisation	10	1				o	o	
BSC110	Marketing Strategy and Planning	10	1				o	o	
BSC120	Risk Management	10	1				o	o	
BSC165	Business Forecasting	10	1				o	o	
BSC502	Operations Management	10	1	o	o		o	o	
BSC520	Management Information Systems	10	1	o	o		o	o	
BSC522	Entrepreneurship and Innovation	10	1				o	o	
BSC027	International Financial Management	10	2				o	o	
BSC042	Corporate and Wholesale Banking	10	2				o	o	

BSC052	International Management & the Business Context	10	2				o	o	
BSC112	Marketing Strategy Simulation	10	2				o	o	
BSC124	Marketing Communications	10	2				o	o	
BSC524	Entrepreneurship and Small Business Planning	10	2				o	o	
Modules from Mathematical Sciences				CS	CS+EB	CS+AI	C+M	ITMB	IT+M
MAB141	Analysis	10	1						o
MAB142	Vector Spaces	10	1						o
MAB150	Vector Calculus	10	1						o
MAB155	Particle Dynamics	10	1						o
MAC147	Number Theory	10	1						o
MAC161	Finite Difference Methods	10	1						o
MAC175	Operational Research	10	1						o
MAB241	Complex Analysis	10	2						o
MAB242	Abstract Algebra	10	2						o
MAB245	Mathematical Methods for Differential Equations	10	2						o
MAB250	ODEs and Calculus of Variations	10	2						o
MAC272	Time Series Analysis	10	2						o
MAC275	State Space and Optimal Control	10	2						o
MAC277	Optimisation	10	2						o
MAC295	Order and Chaos	10	2						o
MAC297	Mathematical Biology	10	2						o

Notes:

1. Candidates may not take COB232 at Part B and Part C.

4.3 Programme-specific contents

4.1.1 Information Technology and Mathematics

When selecting options in Part C, candidates must select at least 20 credits of optional modules from the Department of Computer Science and at least 40 credits of optional

modules from the Department of Mathematical Sciences.

4.1.2 Computing and Management

When selection options in Part C, candidates must select at least 10 credits of optional modules from those offered by the Department of Computer Science and at least 10 credits of optional modules from those offered by the Business School

5 Content - Part D

Candidates in Part D of an MComp degree programme take the following modules:

Code	Title	Weight	Semester
COD292	Group Project	30	1
COD290	Thesis Project	60	1+2
COD509	Management of IT Systems	15	2
COD280	Managing a Project Team	15	2

6 Content - Part I

Candidates on degree programmes with professional training take a year in industry between Parts B and C. This year leads to the award of Diploma of Professional Studies, which is awarded when the candidate completes the programme.

7. Progression and Assessment

7.1 Criteria for Progression and Degree Award

Candidates must achieve the minimum credit requirements set out in the Regulation XX in order to progress through the programme and qualify for the award of the degree.

7.2 Programme-Specific Regulations

In addition the following programme specific regulations must be followed:

7.1.1 Information Technology and Mathematics

In order to progress from Part A to Part B, candidates must, in addition, achieve at least 40% from each of the core mathematics modules MAA340 and MAA342.

7.1.2 All MComp Programmes

In order to progress from Part B to Part C candidates must achieve 110 credits.

Candidates who fail Part D after reassessment will be considered for a BSc degree at the programme board, in accordance with 7.2.1 below.

7.2 Relative Weighting of Parts of the Programme for the purposes of Final Degree Classification

7.2.1 BSc Programmes

Candidates' final degree classifications will be determined on the basis of their performance in degree level module assessments in Parts B and C, in accordance with the scheme set out in Regulation XX. The average percentage marks for Parts B and C will be combined in the ratio 1:3 respectively in order to determine the overall average percentage mark for the programme.

7.2.2 MComp Programmes

Candidates' final degree classifications will be determined on the basis of their performance in degree level module assessments in Parts B, C and D, in accordance with the scheme set out in Regulation XX. The average percentage marks for parts B, C and D will be combined in the ratio 14:43:43 respectively in order to determine the overall average percentage mark for the programme.

7.3 Re-assessment

Provision will be made in accordance with Regulation XX for candidates who have the right of re-assessment in Part A and Part B of the Programme to undergo re-assessment in the University's special assessment period. This provision is also extended to candidates in Part C of an MComp programme. Re-assessment in the University's Special Assessment Period is limited to a maximum of 40 credits.

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