Aston University
BIRMINGHAM UK

PROGRAMME SPECIFICATION, UNDERGRADUATE BACHELOR AND LLB

Programme Title	Computer Science with Business
HECOS Code	100360
College/Subject Area	College of Engineering and Physical Sciences Computer Science
Final Award	Bachelor of Science (BSc)
Interim Awards	• Certificate of Higher Education (CertHE) 120 Credits • Diploma of Higher Education (DipHE) 240 Credits

Attendance Pattern	**Full Time**		**Part time**	
	X			

Predominant delivery method	**Campus-based**	**Work-based**	**Online/distance**
	X		

Location of Study	Students will be located at Aston University except for their period of placement. The location of placements will be dependent upon the nature of placements available which will be subject to change.
Normal Length of Programme	4 years
Total Credits	• Certificate of Higher Education (CertHE) 120 • Diploma of Higher Education (DipHE) 240 • Honours Degree 360 • Honours Degree with Placement Year 480 (including 120 at Level P)
Programme Accredited By	BCS for CITP
Entry Requirements	Entry requirements for each individual student will be stated in their offer letter.

Educational Aims of the Programme	The Programme aims to:
	Aim 1: Produce Graduate Software Developers who specialize in Managing Software Development for Business. Graduates will be highly attractive to employers and well prepared for a rewarding career as a computing professional, specifically prepared to respond to the computing challenges of the business world.
	Aim 2: Develop practical information systems engineering capability based on well-founded principles
	Aim 3: Promote generic attributes appropriate to professionally oriented graduates.
	Aim 4: Enable students opting for the sandwich variant of the programme to enhance their career preparation through a period of structured professional training.
	Aim 5: Provide a participation route that may lead to professional computing employment that is accessible to students who have demonstrated good intellectual aptitude rather than necessarily subject-specific preparation.

Programme Structures and Requirements: Levels, Modules and Credits

Each credit of study is equivalent to 10 learning hours (e.g. 15cr reflects 150 hours of learning). The learning hours may include but are not limited to lectures, seminars, tutorials, lab sessions, practicals, online activity, reading, other independent study, reflecting on assignment feedback, field trips and work placements.

Optional modules are reviewed each year and may change to reflect the expertise of staff, current trends in research, as a result of student feedback, or demand for certain modules.

In the table below, a letter P in brackets next to the module code indicates a pre-requisite. A letter C indicates a co-requisite.

STAGE 1						
Module Title	Credits	Level	Module Code	Core/Option	Condonable	Prerequisites
Foundations of Object Oriented Programming	15	4	CS1FOP	Core	No	None
Professional and Social Aspects of Computing	15	4	CS1PSA	Core	No	None
Internet Applications and Database Design	30	4	CS1IAD	Core	No	(c) CS1FOP
Introductory Accounting for Business	15	4	BF1120	Core	No	None
Introduction to Marketing Management	15	4	BM1155	Core	No	None
Computer Systems	15	4	CS1CS	Core	No	None
Mathematics for Computing Professionals	15	4	CS1MCP	Core	No	None
TOTAL	120					

STAGE 2						
Module Title	Credits	Level	Module Code	Core/Option	Condonable	Prerequisites
Software Engineering	15	5	CS2SE	Core	Yes	(p) CS1FOP, (c) CS2TP
Human Computer Interaction	15	5	CS2HCI	Core	Yes	None
Fundamentals of Strategy	15	5	BM2288	Core	Yes	None
Doing e-Business	15	5	BN2213	Core	No	None
Information Security	15	5	CS2IS	Core	No	(p) CS1IAD, CS1FOP
Team Project	30	5	CS2TP	Core	No	(p) CS1FOP, (c) CS2SE
Data Structures and Algorithms in Java	15	5	CS2DSA	Core	Yes	(p) CS1FOP
TOTAL	120					

STAGE P						
Module Title	**Credits**	**Level**	**Module Code**	**Core/Option**	**Condonable**	**Prerequisites**
EPS Placement Year	120	P	EPSP01	Core	No	None
TOTAL	120					

STAGE F						
Module Title	**Credits**	**Level**	**Module Code**	**Core/Option**	**Condonable**	**Prerequisites**
Individual Project	45	6	CS3IP	Core	No	None
Enterprise Computing Strategies	15	6	CS3ECS	Core	No	None
Software Project Management	15	6	CS3SPM	Core	Yes	(p) CS2SE
Entrepreneurial Marketing and Strategy	15	6	BM3335	Core	Yes	None
Technology & Practice of e-Commerce	15	6	BN3358	Core	Yes	None
Select 15 credits from the following options						
Interaction Design	15	6	CS3ID	Option	Yes	(p) CS2HCI
Advanced Database Systems and GIS	15	6	CS3ADG	Option	Yes	(p) CS1IAD; CS2DSA
Techniques for Data Analysis (Data Mining)	15	6	CS3DM	Option	Yes	None
Computational Intelligence	15	6	CS3CI	Option	Yes	(p) CS1FOP
Knowledge at Work	15	6	BN3379	Option	Yes	(p) SEP002, SEP003
Effective Management Consultancy 1	15	6	BN3360	Option	Yes	None
TOTAL	120					

Stage 1 (First Year, should map to FHEQ1 Level 4 equivalent to an interim award of Cert.HE)	
	On successful completion of this level, students will be able to:
LO4.1	Utilise general intellectual skills in course relevant context, including numeracy, problem solving, and professional levels of written and verbal communication. Students should be able to construct well-argued and grammatically correct documents in which sources are properly attributed and referenced.
LO4.2	Apply course appropriate mathematical and/or statistical principles
LO4.3	Demonstrate their ability to construct reliable, secure and usable object-orientated computer-based systems
LO4.4	Recognise the legal, social, ethical and professional issues involved in the exploitation of computer technology and be guided by the adoption of appropriate professional, ethical and legal practices
LO4.5	Describe the principles and practices of marketing in the contemporary business environment
LO4.6	Interpret financial data and understand the financial consequence of business decisions
LO4.7	Construct and deploy Internet applications incorporating a server-side database.
LO4.8	Demonstrate knowledge and understanding of systems architecture and related technologies

Stage 2 (Second Year, should map to FHEQ Level 5 equivalent to an interim award of Dip.HE)	
	On successful completion of this level, students will be able to:
LO5.1	Demonstrate an ability to work as a member of a development team recognising the different roles within a team and different ways of organising teams
LO5.2	Demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to computing and computer applications in modelling and design
LO5.3	Recognise and analyse criteria and specifications appropriate to specific problems and plan strategies for their solutions
LO5.4	Use appropriate diagrammatic and formal written notations in design work and in reports
LO5.5	Reason about the scope for information security issues within a given computing environment, recognise security breaches and apply appropriate measures and tools to protect against future breaches.
LO5.6	Employ a wide range of concepts, theories, and techniques in relation to managing an e-business, defining strategy and achieving competitive advantage.

Stage 3 (Placement Year, Level P (not mapped to FHEQ))	
	On successful completion of this level, students will be able to:
LOP.1	Develop an understanding of business and the relevant commercial environment and/or intercultural study and their role within it.
LOP.2	Gain knowledge of key aspects of good practice relevant to industry and/or intercultural study context.
LOP.3	Develop new knowledge and understanding appropriate to the industrial, business, study or research sector related to degree programme.
LOP.4	Communicate effectively in a variety of ways in a professional and industrial environment and/or in an intercultural study context.

Stage F (Final Year, should map to FHEQ Level 6 and a final award of BSc Hons)	
	On successful completion of this level, students will be able to:
LO6.1	Work independently to tackle substantial practical problems with limited individual guidance
LO6.2	Perform Software Project Management, especially in relation to planning, scheduling, resourcing, monitoring, and control.
LO6.3	Analyse the complexity of the competitive environment and its implications for small firms, and formulate actionable marketing plans
LO6.4	Analyse how computing strategies can enhance the competitive advantages of enterprises and identify state-of-the-art technologies that may be applied to enterprise information systems and computing strategies
LO6.5	Employ a range of general transferable skills that will be useful in a wide range of situations: these include: problem solving, working with others, effective information management and information retrieval skills, numeracy in both understanding and presenting cases involving a quantitative dimension, communication skills in electronic as well as written and oral form to a range of audiences and planning self-learning and improving performance as the foundation for on-going professional development.
LO6.6	Discuss concepts and apply principles and methodologies relevant to chosen areas of specialisation, thereby achieving additional depth and breadth
LO6.7	Critically evaluate the key concepts of business strategy and apply strategic analytical tools to business issues

Assessment Types

The programme will be assessed through a combination of written and oral examinations, class tests, individual and group coursework, projects, presentations and practical assessments.

Approved Exemptions from General Regulations

None

General Regulations (https://www2.aston.ac.uk/clipp/quality/a-z/general-regulations) and the Regulations for the programme (above) take precedence over other information sources such as student handbooks if there is a conflict. If there is a conflict between General Regulations and Programme Regulations then General Regulations take precedence unless an exemption has been approved.

For administrative use only:

Dates Programme Specification Written and Revised	**Written:** 2019-06-01 **Revised:** March 2020, August 2020, February 2022