PROGRAMME SPECIFICATION

Programme Title	BSc Digital & Technology Solutions
UCAS/JACS Code	I300
School/Subject Area	School of Engineering and Applied Sciences Aston Business School
Final Award	BSc (Honours) Digital & Technology Solutions
Interim Award(s)	Certificate of Higher Education (120 credits) Diploma in Higher Education (240 credits)
Mode(s) of Study	Blended learning, part-time.
Location of Study	Delivery is through a combination of off-campus distance learning, work-based learning and study at Aston University, Birmingham
Normal Length of Programme	54 months
Total Credits	360: BSc (Honours) Digital & Technology Solutions 240: Diploma in Higher Education 120: Certificate of Higher Education
Programme Accredited By	The Tech Partnership
Entry Requirements	To be eligible for admission to this programme a student must be employed in a role with responsibilities aligned with the degree content and must be funded by their employer. Applicants may be in suitable employment before application, or may be recruited jointly by Aston University and an employer. Students who have attained grades of CCC at A-level or triple distinction at BTEC will be eligible for admission to the programme. Those who have not will be required to pass an Aston University, or approved employer, assessment to include aptitude tests and interview.

Educational Aims of the Programme	The Programme aims to:
	• produce graduate IT professionals, specifically prepared to respond to the computing challenges of the business world;
	• provide graduates with the theoretical underpinning needed to support sound analysis, design and delivery of technology solutions;
	• develop practical software and information systems engineering capability based on well-founded principles;
	• provide a wide perspective on IT and business through the Schools' links with professional and public sector organisations;
	• enhance the ability of students to apply their knowledge and understanding in the work environment;
	• provide graduates with the skills and knowledge needed to transfer knowledge to others in the business uses of IT;
	• produce socially responsible and sustainability-literate graduates;
	• develop in graduates the ability to understand and communicate both in a business context and in an IT context; and
	• embed graduate-level transferable skills and learning approaches needed for continuing professional development.

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Programme Structures and Requirements: Levels, Modules and Credits

The study of 10 credits is equivalent to 100 learning hours. The learning hours may include but are not limited to lectures, seminars, tutorials, lab sessions, practicals, online activity, reading, other independent study, feedback on assignments, field trips and work placements.

Availability of the optional modules will be subject to staff availability and a minimum number of students who express an interest in studying the optional modules.

Stage 1

Module Title	Credits	Level	Module Code	Module Type	Condonable Y/N	Pre-requisite(s) Y/N
Introduction to Business Organisations	20	4	BN101D	CORE	Y	N
Foundations of Technology Solutions	30	4	DC1000	CORE	N	N
Professional Practice	30	4	DC1010	CORE	Y	N
Systems Development	10	4	DC1020	CORE	Y	N
Computer Systems and Networks	10	4	DC1170	CORE	Y	N
Internet Computing	10	4	DC1240	CORE	Y	N
Problem Solving	10	4	DC1320	CORE	Y	N
TOTAL	120					

Stage 2						
Module Title	**Credits**	**Level**	**Module Code**	**Module Type**	**Condonable Y/N**	**Pre-requisite(s) Y/N**
Group Project	20	5	DC2060	CORE	Y	N
Professional and Social Aspects of Computing	10	5	DC2160	CORE	Y	N
Human-Computer Interaction	10	5	DC2260	CORE	Y	N
Internet Applications and Techniques	10	5	DC2410	CORE	Y	N
Choose ONE of the following 70 credit specialisms to reach a total of 120 credits at Stage 2:						
Business Analyst (BA) Specialism						
Business Analytics	20	5	BN201D	OPTIONAL	N	N
Introduction to Accounting	20	5	BF202D	OPTIONAL	Y	N
Introduction to Business Economics	10	5	BS203D	OPTIONAL	Y	N
System and Software Analysis	20	5	DC2095	OPTIONAL	Y	N
Software Engineer (SE) Specialism						
Mathematics for Computing Professionals	10	4	DC1260	OPTIONAL	N	N
Software Engineering	20	5	DC2020	OPTIONAL	Y	N
Programming Language Concepts	10	5	DC2130	OPTIONAL	Y	N
Operating Systems	10	5	DC2230	OPTIONAL	Y	N
Java Program Construction	10	5	DC2300	OPTIONAL	Y	N
Data Structures and Algorithms with Java	10	5	DC2310	OPTIONAL	Y	N
TOTAL	120					

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Stage F						
Module Title	**Credits**	**Level**	**Module Code**	**Module Type**	**Condonable Y/N**	**Pre-requisite(s) Y/N**
Individual Project	30	6	DC3010	CORE	N	N
Information Security	10	6	DC3190	CORE	Y	N
Software Project Management	10	6	DC3360	CORE	Y	N
Data Mining	10	6	DC3440	CORE	Y	N
Choose 40 credits from the following 100 credits to reach a total of 120 credits at Stage F:						
Effective Management Consultancy	20	6	BN301D	OPTIONAL	Y	BA only
International Operations	20	6	BN303D	OPTIONAL	Y	BA only
Mobile Development	10	6	DC3040	OPTIONAL	Y	SE only
Enterprise Application Technology	10	6	DC3160	OPTIONAL	Y	SE only
Geographic Information Systems	10	6	DC3210	OPTIONAL	Y	SE only
Managing People and Team Leading	20	4	LBM404	OPTIONAL	Y	N
Enterprise Computing Strategies	10	6	DC3460	OPTIONAL	Y	N
Advanced Database Systems	10	6	DC3800	OPTIONAL	Y	N
Choose ONE of the following 20 credit blocks dependent on your stage 2 specialism to reach a total of 120 credits at Stage F:						
Business Analyst (BA) Specialism						
Strategic Management	20	6	BM305D	OPTIONAL	Y	Y
Software Engineer (SE) Specialism						
Testing and Reliable Software Engineering	10	6	DC3270	OPTIONAL	Y	N
Interaction Design	10	6	DC3410	OPTIONAL	Y	Y
TOTAL	120					

Programme Outcomes, Learning and Teaching and Assessment Strategies

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

A.	Knowledge and Understanding		
	On successful completion of their programme, students are expected to be able to:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	**Assessment Methods**
A1	Understand and apply the principles of information systems engineering with an emphasis on business contexts.	The programme will be delivered in majority through distance learning, with a mixture of recorded lectures, online tutorial and computing laboratory classes. The material will be reinforced through independent practical work associated with taught and project modules, and guided independent study.	Knowledge and understanding are assessed through unseen examinations and project reports, and coursework reports.
A2	Reason about information security issues in relation to the design and development and use of information systems.		
A3	Understand and apply the principles of programming and software development.		
A4	Appreciate the strategic importance of business processes.		
A5	Discuss the legal, social and ethical context for professional IT.		
A6	Understand the principles of computer systems organisation and network infrastructure.		

	B. Intellectual Skills		
	On successful completion of their programme, students are expected to be able to:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	**Assessment Methods**
B1	Analyse business and technical requirements of computing problems and design solutions.	Intellectual skills are developed through recorded lectures (often including suitable case studies) and on-campus seminars. They are supported by independent practical work (both assessed and unassessed) associated with taught modules, and project work, supported by an academic mentor.	Intellectual skills will be assessed through project reports and presentations, unseen written examinations and coursework submissions.
B2	Analyse organisational information requirements and create appropriate data models.		
B3	Derive solutions by applying appropriate problem solving strategies.		
B4	Apply mathematical and statistical methods relevant to a professional IT context.		
B5	Integrate and apply knowledge and methods from a variety of sources.		

C.	Professional Skills		
	On successful completion of their programme, students are expected to be able to:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	**Assessment Methods**
C1	Manage conduct and report on a programme of work covering multiple software lifecycle stages and leading to an end-product, with evaluation of end-product, process and business value.	Professional skills will be discussed in recorded lectures (often including suitable case studies) and on-campus seminars. Students will develop these skills through on-line (and some on-campus) tutorials and lab sessions, supported by independent practical work (both assessed and unassessed) associated with taught modules. Of particular relevance to aspect 1) is project work, supported by an academic mentor.	Unseen written examinations, coursework submissions relating to application, project reports and presentations.
C2	Use a variety of programming languages, software tools and environments.		
C3	Apply software analysis and design methods.		
C4	Develop, deploy and manage information systems and analyse organisational data.		

D. Transferable Skills

	On successful completion of their programme, students are expected to show:	Learning, Teaching and Assessment Strategies to enable outcomes to be achieved and demonstrated	
		Learning and Teaching Methods	**Assessment Methods**
D1	Effective communication through technical reports and presentations.	Written and oral communication and information skills are developed through both off- and on-line moderated discussion, class presentations and report writing. Independent working and research, and time management skills will be developed in several modules but in project-based modules in particular.	Many assessments will be report and presentation based and will provide direct evidence of the level of communication skills acquired. Independent work and time management skills will be directly assessed in project modules and group based coursework and projects will be used to assess team-working.
D2	A capability for independent working able to tackle substantial practical problems with limited individual guidance.		
D3	The capacity to research a topic independently.		
D4	The ability to work effectively in teams face to face and remotely.		
D5	Time management skills.		

Further Information

Attendance
The programme may have specific attendance requirements. Please see the Programme Handbook for further information.

Delivery
Each stage of the programme will be delivered in three periods of 40 credits. Each period will last approximately six calendar months.

Multiple Intakes
Five cohorts per year will be enrolling in the programme, with enrolment dates typically being in September, November, January, March and June.

Approved Exemptions from General Regulations

Referral and Deferral
The module boards held at the end of the first and the second 40 credit block of modules for each stage may refer up to 20 credits worth of failure and defer an unlimited amount of credit. The Programme Board held at the end of each stage will observe any previously referred assessment in any final decisions on referral.

General Regulations (http://www1.aston.ac.uk/registry/for-staff/regsandpolicies/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 internal use only:

Dates Programme Specification Written and Revised	Written: March 2015 Revised: June 2015, 1st August 2015, April 2016, 12 May 2016, 21 September 2016, April 2017, October 2017