Programme Specification

BSc (Hons) Computing & Website Development with Foundation

Awarding Institution:	University of Bolton		
Teaching Institution:	University of Bolton		
Division and/or Faculty/Institute:	Creative Technologies Academic Group		
Professional accreditation	Professional body	Professional body URL	Status of graduates
Final award(s):	BSc (Hons)		
Interim award(s)	None		
Exit or Fallback award(s)	Certificate of Foundation		
	Certificate of Higher Education		
	Diploma of Higher Education		
Programme title(s)	Computing & Website Development		
UCAS Code	G452		
JACS Code	I150 Multimedia Computer Science		
University Course Code(s)	Full time: COM0020		
QAA Benchmark Statement(s)	Computing		
Other internal and external reference points	QAA Academic Infrastructure, including the Framework for Higher Education Qualifications and the Code of Practice		
	UK Quality Code for Higher Education		
	University of Bolton awards framework		
	BCS Guidelines on Course Accreditation, Sept 2010		
Language of study	English		
Mode of study and normal period of study	Full time – 4 years		
Admissions criteria			

For UCAS tariff points please refer to our website (www.bolton.ac.uk).

You will have at least one but preferably two A2-levels (or equivalent) in any subjects. In addition 5 GCSEs at Grade C or above including English and Mathematics will usually be required.

Students with non-traditional qualifications but relevant experience or a suitable portfolio of work which is deemed a reasonable substitute for the qualifications may be made an offer.

If English is not your first language you will also need IELTS 6.0 (or equivalent).

Interviews will usually be conducted on a one to one basis either in person or via telephone by a member of the course team. Applicants may at some point be required to show a portfolio and may be asked a variety of questions designed to assess their suitability for the course.

Aims of the programme

The principal aims of the programme are to:

1. develop academic and professional skills to allow for opportunity to study at higher levels and enhance career development

2. develop transferable knowledge and skills appropriate to the field of Computing & Website Development

3. develop competence, adaptability, self-confidence and critical self-reflection through critical enquiry and independent judgement

4. develop capability in the exploration, critical analysis and evaluation of technical and business issues and concepts including an awareness of ethical and environmental issues

5. develop knowledge and skills in applying enterprise problem solving and decision making to meet the needs of various types of business organisations

6. prepare for employment at graduate level or postgraduate study at MSc or PhD level

7. develop a positive attitude towards, and the skills for, life-long learning and Personal Development Planning.

Distinctive features of the programme

This course focuses on the techniques for developing scalable commercial websites,

including those built on database technologies using appropriate scripting and programming languages. It is a practical course and you will build up a portfolio demonstrating competence in developing content for a number of different target devices.

Links with businesses provide 'live briefs' for coursework assignments to ensure students are working on meaningful projects. The programme leader maintains active links with businesses and former students who are now working in the industry to establish opportunities for work placements during vacation periods and after finishing the course.

The course concentrates on the development of skills in the following scripting and programming languages: HTML, CSS, JavaScript, jQuery, PHP, Java, C#. These languages are used to develop commercial websites that interact with 'back-end' data stores such as databases (MySQL, MS SQL) and XML based files.

The Foundation and Level 1 (second year) of the course is common to all programmes in the Computing group and gives students a broad introduction to various computing technologies and allows flexible progression on to Level 2 (third year). This flexibility allows students the possibility of transferring to one of the other BSc (Hons) programmes in the Computing group at the end of Level 1.

Although Level 1(second year) is common to other computing courses, it includes three modules that are specific to website development: *Website Production*, *Information Systems & Databases* and *Introduction to Programming.* These modules are supported by modules which introduce background technologies: *Computer Platforms*, and *Networking Fundamentals.*

At Level 2 (third year) the modules focus more on the various needs of industry such as the development of content for mobile platforms and the development of skills in several website development languages. The content of the modules has been designed after consultation with industry and employers to ensure that the areas of study are significant and relevant to their requirements.

At level 3 (fourth year) the emphasis is on independent, research-based work; the undertaking of a major project and advanced programming relating to the production of secure, E-Commerce sites and business to business (B2B) operations over the internet using web services.

The classes are small so there is plenty of interaction with the lecturers and questions can always be answered. Guest speakers provide relevant, up-to-date input from practitioners in the industry.

The course is supported by dedicated IT suites. Many of the computing facilities can be accessed across the internet from home, allowing students to work on their assignments whenever and wherever they choose.

Graduates of the BSc(Hons) Computing & Website Development will hold an internationally recognised qualification appropriate for employment in the following areas: web development, e-commerce, mobile applications, m-commerce, social marketing, search engine optimisation, internet security. Self-employment is a viable option for graduates of this programme. Website development is a global activity and graduates are employable anywhere in the world.

Programme learning outcomes

K. Knowledge and understanding
On completion of the programme successful students will be able to demonstrate systematic knowledge and understanding of:
1. business and professional aspects of the industry.
2. the gathering, processing, storage and management of data.
3. the development of structured software and its testing and maintenance.
4. the stages of the systems life cycle, and the use of appropriate tools and techniques therein.
5. the production of websites.
6. research methods and the contribution of a literature review to a project or investigation within a managed timescale.
7. a broad range of fundamental computer technologies

C. Cognitive, intellectual or thinking skills
On completion of the programme successful students will be able to demonstrate the ability to:
1. demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to computing and computer applications.
2. identify and solve problems using a systematic approach to reach a solution.
3. investigate the existing body of knowledge in a particular field.
4. apply concepts and evaluate alternatives in designing new products and services.
5. critically analyse findings, reflect and then apply skills and knowledge to new areas.
6. integrate a variety of investigative skills, synthesise and then apply to problem solving.
7. explain fundamental computer methods and tools

P. Practical, professional or subject-specific skills
On completion of the programme successful students will be able to demonstrate the ability to:
1. produce a systems requirements specification, including user interactions, interfaces and documentation.
2. understand the potential risks, security and safety aspects appropriate to the field of study, including risk assessment and disaster recovery.
3. specify, design, test and implement a database using an industry standard database package.
4. choose and deploy effectively the hardware and software used to create and maintain web/mobile content.
5. plan, manage and control a project, taking account of professional and ethical issues.
6. specify, design, build and implement a software solution to a typical business problem.
7. describe and utilise computer systems and software

T. Transferable, key or personal skills
On completion of the programme successful students will be able to demonstrate the ability to:

1. communicate effectively both orally and in writing, involving quantitative and qualitative aspects.
2. manage their own learning and development including time management, organisational skills and self-appraisal.
3. prepare for employment in the industry, recognising the importance of teamwork and the need for continuing professional development.
4. carry out a substantial piece of independent work and undertake a critical evaluation.
5. Outline and demonstrate appropriate and ethical testing and research strategies

Programme structure

There are 4 levels (FE3, HE4, HE5, and HE6). Each level has 120 credits and takes place over two trimesters; a fulltime student would normally complete 60 credits per trimester. All modules at foundation level must be completed successfully before students are allowed to progress onto level 1 of the degree course. All modules on the course are core and therefore must be successfully completed. The credit value of modules is 20 except for the major project, which has a credit value of 40.

Module Code	Module title	Core/ Option/ Elective (C/O/E)	Credits	Length (periods)
Level FE3				
CTF3001	Fundamentals of Programming	C	20	1
CTF3002	Logical Analysis and Problem Solving	C	20	1
CTF3003	Introduction to Digital Entertainment Technology	C	20	1
CTF3004	Foundation Project	C	20	1
CTF3005	Computers in Society	C	20	1
CTF3006	Networks and Hardware	C	20	1
Level HE4				
CPU4000	Core Skills	C	20	1
CPU4001	Website Production	C	20	1
CPU4002	Information Systems and Databases	C	20	1
CPU4003	Introduction to Programming	C	20	1
CPU4004	Computer Platforms	C	20	1
CPU4005	Networking Fundamentals	C	20	1
Level HE5				
CPU5000	Level 2 Project	C	20	1
CPU5001	Web Programming	C	20	1
CPU5002	Database Theory & Practice	C	20	1
CPU5003	UNIX	C	20	1
CPU5004	Mobile Applications Design	C	20	1
CPU5005	Internet Applications & Server Systems	C	20	1
Level HE6				
CPU6000	Professional Issues in Computing	C	20	1
CPU6001	Major Project	C	40	2

CPU6002	Web Application Project Management	C	20	1
CPU6003	Web & Systems Based Programming	O	20	1
CPU6004	Network Security	O	20	1
CPU6005	Facilitating E-commerce	O	20	1

Learning and teaching strategies

The programme uses a blended learning approach, combining face to face sessions with online work as appropriate. The learning and teaching methods typically used by tutors include, lectures, seminars, workshops, tutorials, e-learning, online sessions and support.

A significant amount of personal study time is expected to be undertaken by the student, comprising, for example, background reading, assignment work, preparation for seminars, and revision for examinations.

Active learning is promoted throughout the course, e.g. theoretical concepts being delivered in a framework of lectures, practical demonstrations and workshops applying theory to practice using activity based assignments.

Learning activities (KIS entry)

	Course Year			
	1	2	3	4
Scheduled learning and teaching activities	30%	25%	25%	25%
Guided independent study	70%	75%	75%	75%
Placement/study abroad	0%	0%	0%	0%

Assessment strategy

Assessment tasks are linked to the learning outcomes of each module and are

completed before the end of the module.

Module assessments are typically either coursework or examination or a combination of both. In the second and final years formal written examinations take place during the last week of the module delivery period. Other types of assessment may include in-class tests, coursework assignments, presentations, projects.

Formative Assessment, which does not contribute to the final mark, is given to help the student improve their work in future. It may be given to the student verbally/written/online.

Summative assessment, which does contribute towards the final result, is normally given in writing to the student, with the opportunity for the student to receive more detailed verbal explanation.

Assessment methods (KIS entry)

	Course Year			
	1	2	3	4
Written exams	0%	0%	14%	16%
Coursework	92%	84%	86%	76%
Practical exams	8%	16%	0%	8%

Assessment regulations

This programme by the University assessment regulations.

Assessment Regulations for Undergraduate Modular Programmes

Grade bands and classifications

Grade Description

Honours Degree	Mark	BTEC Equivalent
i	70%+	Distinction
ii.i	60-69%	Merit
ii.ii	50-59%	Pass
iii	40-49%	Pass
Borderline Fail	35-39%	Fail
Clear Fail	Below 35	Fail

Role of external examiners
External examiners are appointed for all programmes of study. They oversee the assessment process and their duties include: approving assessment tasks, reviewing assessment marks, attending assessment boards and reporting to the University on the assessment process.

Support for student learning
- The programme is managed by a programme leader
- The foundation year has a dedicated coordinator / year tutor
- A more rounded and consolidated learning approach is achieved through the regular use of excellent laboratory facilities. These practical sessions are scheduled to coincide with the theoretical lecture based studies.
- Technician support is available outside of scheduled class times. Students find this particularly helpful on project work
- An induction programme introduces students to the University and their programme
- Each student has a personal tutor, responsible for support and guidance
- Personal Development Planning (PDP) integrated into all programmes
- Feedback on formative and summative assessments
- A Student Centre providing a one-stop shop for information and advice
- University support services include housing, counselling, financial advice, careers and a disability
- A Chaplaincy
- Library and IT services
- Student Liaison Officers attached to each Academic Group
- The Students' Union advice services

Student and Programme Handbooks which provide information about the programme and University regulations
- The opportunity to develop skills for employment
- English language support for International students
- Placement opportunities may be available
- Access and use of virtual learning environments for each module

Methods for evaluating and enhancing the quality of learning opportunities

- Programme committees with student representation

- Module evaluations by students
- Students surveys, e.g. National Student Survey (NSS), Postgraduate Taught Experience Survey (PTES)
- Annual quality monitoring and action planning through Programme Quality Enhancement Plans (PQEPs), Data Analysis Report (DARs) Subject Annual Self Evaluation Report (SASERs), Faculty Quality Enhancement Plans (FQEPs), University Quality Enhancement Plan (UQEP)
- Peer review/observation of teaching
- Professional development programme for staff
- External examiner reports

Other sources of information (Hyperlinks)

Student portal http://www.bolton.ac.uk/Students/Home.aspx
Students Union http://www.ubsu.org.uk/
Student Handbook
Programme Handbook
Student Entitlement Statement
Module database
Moodle
External examiners reports
http://www.bolton.ac.uk/Quality/QAEContents/ExternalExaminersReports/Home.aspx
The university careers service and web pages at
http://www.bolton.ac.uk/Careers/Home.aspx

Document control	
Author(s)	Martin Stanhope / Brian Morris
Approved by:	
Date approved:	
Effective from:	September 2013
Document History:	

Foundation Year - Learning outcomes map

Module title	Code	Status (C/O/E)	K6	K7	C1	C2	C7	P2	P7	T1	T2	T5
Fundamentals of Programming	CTF3001	CORE			DTA		DTA		DTA	D	D	DTA
Logical Analysis and Problem Solving	CTF3002	CORE				DTA	DTA		DA	DA	D	DTA
Introduction to Digital Entertainment Technology	CTF3003	CORE		DTA	DTA		DTA		D	D	D	
Foundation Project	CTF3004	CORE	DTA						D	DTA	DTA	
Computers in Society	CTF3005	CORE		DTA			DTA	DTA	DA	D	D	
Networks and Hardware	CTF3006	CORE		DTA	DTA		DTA	DTA	DTA	D	D	DTA

K. Knowledge and understanding   P. Practical, professional and subject specific skills C. Cognitive, Intellectual and thinking skills   T. Transferable, key or personal skills

D = Development   T = Taught   A = Assessed

Learning outcomes map

Module title	Mod Code	Status C/O/E	K1	K2	K3	K4	K5	K6	C1	C2	C3	C4	C5	C6	P1	P2	P3	P4	P5	P6	T1	T2	T3	T4
Core Skills	CPU4000	C	DT					DT	DTA		DTA										DTA	DTA	DT	
Website Production	CPU4001	C	D									DTA				DTA		DTA			DA			
Information Systems & Databases	CPU4002	C	D	DTA		DT	DT		DTA	DTA		DTA			DT		DTA				DTA	DT		
Introduction to Programming	CPU4003	C	D	DT	DTA	DT	DT		DT						DT						D			
Computer Platforms	CPU4004	C	D						DTA						DT	DTA		D			D			
Networking Fundamentals	CPU4005	C	D						DTA						DT	DTA					D			
Level 2 Project	CPU5000	C	DTA	DT		DTA	DTA	DTA	DT	DTA	DTA	DTA	DTA	DTA	DTA		DTA		DTA		DA	DTA	DTA	D
Web Programming	CPU5001	C		DT	DT	DT	DT								DTA			DTA						
Database Theory & Practice	CPU5002	C		DTA		DTA	DTA					DTA			DT		DTA							
UNIX	CPU5003	C	D			DT	D		D	D	D					DTA	DTA	D			D			
Mobile Applications Design	CPU5004	C	D		DTA	D	D	D								DTA	D		DTA			D	D		D
Internet Applications & Server Systems	CPU5005	C	DTA	D	DTA	D	DTA	D		D	D	D			DTA	DTA	DTA	DTA	D	D	DA	D		DTA
Professional Issues in Computing	CPU6000	C	DTA			DTA	DTA		DTA			DTA			DTA	DT		DTA		DTA	DTA		DTA	DTA
Major Project	CPU6001	C	DTA		DA	DA	DA	DTA		DA	DA	DA	DA	DTA	DTA		DA		DTA	DTA	DA	DA	D	DTA
Web Application Project Management	CPU6002	C	DT			DTA		DTA				DTA			DTA			DTA	DTA				D	DTA
Web & Systems Based Programming	CPU6003	O				DTA		D							DTA			DTA						DTA
Network Security	CPU6004	O	D				DTA	D					D	D			D	D		DTA				DTA
Facilitating E-commerce	CPU6006	O	DTA	D	D		D	D	DTA	D	D	DTA	D	D	DA	DTA	D	D	D	DTA	D	D	D	D

K. Knowledge and understanding   P. Practical, professional and subject specific skills C. Cognitive, Intellectual and thinking skills   T. Transferable, key or personal skills

D = Development   T = Taught   A = Assessed

Programme specification: BSc(Hons) Computing & Website Development
Date: July 2013

Foundation Year - Module List	Code	Level	Credit	Type	Status (C/O/E)	Assessment 1			Assessment 2		
Module title						Assessment type	Assessment %	Add Y if final item	Assessment type	Assessment %	Add Y if final item
Fundamentals of Programming	CTF3001	FE3	20	STAN	CORE	PRA	50		CW	50	Y
Logical Analysis and Problem Solving	CTF3002	FE3	20	STAN	CORE	CW	50		CW	50	Y
Introduction to Digital Entertainment Technology	CTF3003	FE3	20	STAN	CORE	CW	50		CW	50	Y
Foundation Project	CTF3004	FE3	20	STAN	CORE	CW	100	Y			
Computers in Society	CTF3005	FE3	20	STAN	CORE	CW	50		CW	50	Y
Networks and Hardware	CTF3006	FE3	20	STAN	CORE	CW	50		CW	50	Y

PRA (Practical); PROJ (Project); STAN (Standard); EX (Written Exam); CW (Coursework)

Programme specification: BSc(Hons) Computing & Website Development
Date: July 2013

Module listing

Module title	Module Code	Level	Credits	Type	Status C/O/E	Pre-requisite module	Assessment 1			Assessment 2		
							Assessment type	Assessment %	Add Y if final item	Assessment type	Assessment %	Add Y if final item
Core Skills	CPU4000	4	20	Stan	C	None	CW	100	Y	-	-	-
Website Production	CPU4001	4	20	Stan	C	None	CW	50	-	CW	50	Y
Information Systems & Databases	CPU4002	4	20	Stan	C	None	CW	100	Y	-	-	-
Introduction to Programming	CPU4003	4	20	Stan	C	None	PRA	30	-	CW	70	Y
Computer Platforms	CPU4004	4	20	Stan	C	None	CW	50	Y	CW	50	-
Networking Fundamentals	CPU4005	4	20	Stan	C	None	PRA	50	-	PRA	50	-
Level 2 Project	CPU5000	5	20	Stan	C	None	CW	50	-	CW	50	Y
Web Programming	CPU5001	5	20	Stan	C	None	CW	50	-	CW	50	Y
Database Theory & Practice	CPU5002	5	20	Stan	C	None	CW	50	-	EX	50	Y
UNIX	CPU5003	5	20	Stan	C	None	CW	50	-	EX	50	Y
Mobile Applications Design	CPU5004	5	20	Stan	C	None	PRA	50	-	CW	50	Y
Internet Applications & Server Systems	CPU5005	5	20	Stan	C	None	CW	50	-	EX	50	Y
Professional Issues in Computing	CPU6000	6	20	Stan	C	None	PRA	50	-	EX	50	Y
Major Project	CPU6001	6	40	Proj.	C	None	CW	100	Y	-	-	-
Web Application Project Management	CPU6002	6	20	Stan	C	None	CW	100	Y	-	-	-
Web & Systems based programming	CPU6003	6	20	Stan	O	None	CW	50	-	EX	50	Y
Network Security	CPU6004	6	20	Stan	O	None	CW	50	-	EX	50	Y
Facilitating E-commerce	CPU6005	6	20	Stan	O	None	CW	50	N	EX	50	Y

PRA (Practical); PROJ (Project); STAN (Standard); EX (Written Exam); CW (Coursework)

Programme specification: BSc(Hons) Computing & Website Development
Date: July 2013

Foundation Year - Bolton Key Core Curriculum requirements

Module Title	Code	Status (C/O/E)	Employability											Bolton Values		
			PDP	Communication	Team work	Organisation & Planning	Numeracy	Problem solving	Flexibility & adaptability	Action planning	Self awareness	Initiative	Personal impact & confidence	Inter-nationalisation	Environmental sustainability	Social, public and ethical responsibility
Fundamentals of Programming	CTF3001	CORE	DA	D	DA	D		D		D			D			
Logical Analysis and Problem Solving	CTF3002	CORE	DA	D	DA	D	DTA	DTA	D	DTA			D			
Introduction to Digital Entertainment Technology	CTF3003	CORE	DA	D	DA	D		D					D			
Foundation Project	CTF3004	CORE	DTA	DTA	DTA	DTA		D	D	DTA	D	D	D			
Computers in Society	CTF3005	CORE	DA	D	DA	D				D			D	DTA	DTA	DTA
Networks and Hardware	CTF3006	CORE	DA	D	DA	D		D		D			D		D	

D = Development   T = Taught   A = Assessed

Bolton Key Core Curriculum requirements

Module Title	Module Code	Status C/O/E	Employability											Bolton Values		
			PDP	Communication	Team work	Organisation & Planning	Numeracy	Problem solving	Flexibility & adaptability	Action planning	Self awareness	Initiative	Personal impact & confidence	Inter-nationalisation	Environmental sustainability	Social, public and ethical responsibility
Core Skills	CPU4000	C	DTA	DTA	DTA	DTA	D	DTA	D	DT	D	D	DT	D	D	D
Website Production	CPU4001	C		DA	D	DTA		DTA	D	DTA		D		D		D
Information Systems & Databases	CPU4002	C		DA		DTA	D	DTA	D	DTA		D		D		
Introduction to Programming	CPU4003	C		DA		DTA	D	DTA	D	DTA		D		D		
Computer Platforms	CPU4004	C		DA		D	D	DTA	D	D		D		D	D	
Networking Fundamentals	CPU4005	C		DA		DTA	DTA	DTA	D	D		D		D		D
Level 2 Project	CPU5000	C	DT	DTA	D	DTA	D	DTA	D	D	D	D	D	D	D	D
Web Programming	CPU5001	C		DA	D	D	D	DTA	D	D		D		D		D
Database Theory & Practice	CPU5002	C		DA		D	D	DTA		D		D				
Unix	CPU5003	C		DA		DTA		DTA	D	D		D		D		
Mobile Applications Design	CPU5004	C		DA		D		DTA	D	D		D		D		
Internet Applications & Server Systems	CPU5005	C		DA	D	D	D	DTA	D	D		D		D		
Professional Issues in Computing	CPU6000	C	D	DA	DTA	DA		DA	D	D	D	D	D	D	D	DT
Major Project	CPU6001	C	DT	DA		DTA	D	DA	D	DTA	D	D	D	D	D	D
Web Application Project Management	CPU6002	C		DTA	DT	DTA	D	DTA	D			D		D		
Web & Systems based programming	CPU6003	O		DA	D	DTA		DTA				D		D		
Network Security	CPU6004	O		DA		D		D	D	D		D		D		D
Facilitating E-commerce	CPU6005	O		DA		D		D				D		D		D

D = Developed,   T = Taught, A = Assessed

Programme specification: BSc(Hons) Computing & Website Development
Date: July 2013