

# **Programme Specification**

# **Programme Title: HND Computing and Website Development**

Awarding Institution:	University of Bolton										
Teaching Institution:	University of Bolton										
Division and/or Faculty/Institute:	Faculty of Arts and Media Technologies										
Professional accreditation	Professional body URL Status of graduates										
Final award(s):	HND										
Interim award(s)	N/A										
Exit or Fallback award(s)	Certificate of Higher Education in Computing and Website Development										
Programme title(s)	Computing and Website Development										
UCAS Code	024G										
JACS Code	G450 Multimedia Computing Science										
University Course Code(s)	Full time: COM00 Part time: COM50										
QAA Benchmark Statement(s)	Computing										
Other internal and external reference points		rastructure, including to on Qualifications and th									
	UK Quality Code f	or Higher Education									
	University of Bolton	n awards framework									
	BTEC Specification Development, July	n for HND Computing a 2011	and Systems								
Language of study	English										
Mode of study and normal period of study	Full time – 2 years Part time – 3 years										

Programme specification: HND Computing & Website Development Date: 12<sup>th</sup> July 2012

#### Admissions criteria

You should have a minimum of one GCE A2-level passes (or equivalent), including; and five GCSEs at grade C or above (or equivalent), including in English and Mathematics.

If English is not your first language you will need to complete an English Language proficiency test at IELTS 6.0 or equivalent.

In addition to attracting traditionally qualified school/college leavers, the HND Computing and Website Development is suitable for students who have not been engaged in academic programmes of study for some years but who are actively employed in the computing and web development industry and may be seeking to enhance their career prospects through an academic award.

#### **Additional admissions matters**

Not applicable

#### Fitness to practise declaration

Not applicable

#### Aims of the programme

The principal aims of the programme are to:

- 1. develop transferable knowledge and skills appropriate to the field of Computing and Website Development.
- 2. develop competence, adaptability, self-confidence and critical self-reflection.
- 3. develop capability in the exploration and understanding of technical and business issues and concepts including an awareness of ethical and environmental issues;
- 4. develop a strong academic and vocational background and be competent in applying problem solving and decision making.
- 5. prepare students for employment or further studies at degree level.
- 6. develop a positive attitude towards, and the skills for, life-long learning and Personal Development Planning.

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### 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 first year of the course is common to all programmes in the Computing group, allowing flexible progression into the second year. This flexibility allows students the possibility of transferring to one of the other HND programmes in the Computing group at the end of Year 1.

Although the first 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 three modules are supported by modules which introduce background technologies: Computer Platforms and Networking Fundamentals.

In the second 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.

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.

Successful HND students will hold a nationally recognised qualification appropriate for employment in the following areas: web development, mobile applications, social marketing, search engine optimisation, internet security. Website development is a global activity with employment opportunities worldwide.

The HND Computing and Website Development course has been incorporated into the BSc (Hons) Computing and Website Development programme which means that successful students can proceed directly onto the final year of the degree course.

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#### 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. essential facts, concepts, principles and theories relating to computing and computer applications;
- 2. business and professional aspects of the industry.
- 3. the gathering, processing, storage and management of data.
- 4. the development of structured software and its testing and maintenance.
- 5. the stages of the systems life cycle, and the use of appropriate tools and techniques therein.
- 6. the production of websites.

#### C. Cognitive, intellectual or thinking skills

On completion of the programme successful students will be able to demonstrate the ability to:

- 1. identify and solve problems using a systematic approach to reach a solution.
- 2. investigate the existing body of knowledge in a particular field.
- 3. apply concepts and evaluate alternatives in designing new products and services.

### 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.

### 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.

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### **Programme structure**

The HND Computing & Website Development programme involves completing 120 credits at HE4 and 120 credits at HE5.

Module Code	Module title	Core/ Option/ Elective (C/O/E)	Credits	Length (periods)
CPU4000	Core Skills	С	20	1
CPU4001	Website Production	С	20	1
CPU4002	Information Systems & Databases	С	20	1
CPU4003	Introduction to Programming	С	20	1
CPU4004	Computer Platforms	С	20	1
CPU4005	Networking Fundamentals	С	20	1
CPU5000	Level 2 Project	С	20	1
CPU5001	Web Programming	С	20	1
CPU5002	Database Theory & Practice	С	20	1
CPU5003	UNIX	С	20	1
CPU5004	Mobile Applications Design	С	20	1
CPU5005	Internet Applications & Server Systems	С	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.

Additional tutorial support is provided to HND Computing and Website Development students during their studies.

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Le	Learning activities (KIS entry)							
		Cours 1	e Year 2					
	Scheduled learning and teaching activities	25%	25%					
	Guided independent study	75%	75%					
	Placement/study abroad	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 1	Year 2
Written exams	0%	17%
Coursework	84%	66%
Practical exams	16%	17%

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#### Assessment regulations

The University of Bolton Assessment Regulations for Undergraduate Modular Programmes apply.

#### Grade bands and classifications

#### **Grade Bands**

Grade Description	Mark %	Module and Overall Grade
Work of exceptional quality	70+	Distinction
Work of very good quality	60-69	Merit
Work of good quality	50-59	Pass
Work of satisfactory quality	40-49	Pass
Borderline fail	35-39	
Fail	Below 35	

#### Grading

The award of HND with Distinction may be made where your overall average mark is at least 70%, normally calculated from modules at Level HE5.

The award of HND with Merit may be made where your overall average mark falls between 60 – 69.99 normally calculated from modules worth at Level HE5.

#### **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
- 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 student to the University and their programme

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- 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 Faculty
- The Students' Union advice services
- Faculty 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

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### 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
- 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

Student portal (<a href="http://www.bolton.ac.uk/Students/">http://www.bolton.ac.uk/Students/</a>)

Students Union (<a href="http://www.ubsu.org.uk/">http://www.ubsu.org.uk/</a>)

Faculty or similar Handbook (<a href="http://www.bolton.ac.uk/amt">http://www.bolton.ac.uk/amt</a>)

Module database (http://modules.bolton.ac.uk)

External examiner reports

http://www.bolton.ac.uk/Quality/QAEContents/ExternalExaminersReports/Home.aspx

Document control	
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# Learning outcomes map

Module title	Module Code	Status C/O/E	K1	K2	К3	K4	K5	K6	C1	C2	C3	P1	P2	P3	P4	T1	T2	Т3
Core Skills	CPU4000	С	DTA	DT						DTA						DTA	DTA	DT
Website Production	CPU4001	С		D							DTA	DTA			DTA	DA		
Information Systems & Databases	CPU4002	С	DTA	D	DTA		DT	DT	DTA		DTA	DT		DTA		DTA	DT	
Introduction to Programming	CPU4003	С	DT	D	DT	DTA	DT	DT				DT				D		
Computer Platforms	CPU4004	С	DTA	D								DT	DTA		D	D		
Networking Fundamentals	CPU4005	С	DTA	D								DT	DTA			D		
Level 2 Project	CPU5000	С	DT	DTA	DT		DTA	DTA	DTA	DTA	DTA	DTA		DTA		DA	DTA	DTA
Web Programming	CPU5001	С			DT	DT	DT	DT				DTA			DTA			
Database Theory & Practice	CPU5002	С			DTA		DTA	DTA			DTA	DT		DTA				
Unix	CPU5003	С	D	D			DT	D	D	D			DTA	DTA	D	D		
Mobile Applications Design	CPU5004	С		D		DTA	D	D				DTA	D		DTA	D	D	
Internet Applications & Server Systems	CPU5005	С		DTA	D	DTA	D	DTA	D	D	D	DTA	DTA	DTA	DTA	DA	D	

#### Key

K = Knowledge and understanding

P = Practical, professional and subject specific skills

C = Cognitive, Intellectual and thinking skills

T = Transferable, key or personal skills.

D = Developed, T = Taught, A = Assessed

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# **Module listing**

Module title	Mod Code	New? ✓	Level	Credits	Туре	Core/Option /Elective 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	New	4	20	Stan	С	None	CW	100	Υ	-	-	-
Website Production	CPU4001	New	4	20	Stan	С	None	CW	50	-	CW	50	Υ
Information Systems & Databases	CPU4002	New	4	20	Stan	С	None	CW	100	Υ	-	-	-
Introduction to Programming	CPU4003	New	4	20	Stan	С	None	PRA	30	-	CW	70	Υ
Computer Platforms	CPU4004	New	4	20	Stan	С	None	CW	50	Υ	CW	50	-
Networking Fundamentals	CPU4005	New	4	20	Stan	С	None	PRA	50	-	PRA	50	-
Level 2 Project	CPU5000	New	5	20	Stan	С	None	CW	50	-	CW	50	Υ
Web Programming	CPU5001	New	5	20	Stan	С	None	CW	50	-	CW	50	Υ
Database Theory & Practice	CPU5002	New	5	20	Stan	С	None	CW	50	-	EX	50	Υ
Unix	CPU5003	New	5	20	Stan	С	None	CW	50	-	EX	50	Υ
Mobile Applications Design	CPU5004	New	5	20	Stan	С	None	PRA	50	-	CW	50	Υ
Internet Applications & Server Systems	CPU5005	New	5	20	Stan	С	None	CW	50	-	EX	50	Υ

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# **Bolton Key Core Curriculum requirements**

Module Title	Module Code	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	С	DTA	DTA	DTA	DTA	D	DTA	D	DT	D	D	DT	D	D	D		
Website Production	CPU4001	С		DA	D	DTA		DTA	D	DTA		D		D		D		
Information Systems &	CPU4002	С		DA		DTA	D	DTA	D	DTA		D		D				
Databases																		
Introduction to Programming	CPU4003	С		DA		DTA	D	DTA	D	DTA		D		D				
Computer Platforms	CPU4004	С		DA		D	D	DTA	D	D		D		D	D			
Networking Fundamentals	CPU4005	С		DA		DTA	DTA	DTA	D	D		D		D		D		
Level 2 Project	CPU5000	С	DT	DTA	D	DTA	D	DTA	D	D	D	D	D	D	D	D		
Web Programming	CPU5001	С		DA	D	D	D	DTA	D	D		D		D		D		
Database Theory & Practice	CPU5002	С		DA		D	D	DTA		D		D						
Unix	CPU5003	С		DA		DTA		DTA	D	D		D		D				
Mobile Applications Design	CPU5004	С		DA		D		DTA	D	D		D		D				
Internet Applications & Server Systems	CPU5005	С		DA	D	D	D	DTA	D	D		D		D				

## Key

 $\overline{D}$  = Developed, T = Taught, A = Assessed

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