Programme Specification

Programme Title: HND Computing

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	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		
Programme title(s)	Computing		
UCAS Code	104G		
JACS Code	G400		
University Course Code(s)	Full time: COM0003 Part time: COM5003		
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 BTEC Specification for HND Computing and Systems Development, July 2011		
Language of study	English		
Mode of study and normal period of study	Full time – 2 years Part time – 3 years		

Admissions criteria

You should have a minimum of two GCE A2-level passes (or equivalent); and five GCSEs at grade C or above (or equivalent), including 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 is suitable for students who have not been engaged in academic programmes of study for some years.

Additional admissions matters

Not applicable

Fitness to practise declaration

Not applicable

Aims of the programme

The principal aims of the programme are:

1. To develop an in-depth understanding of the role, design, development and operation of computer-based information systems in the context of the information requirements of a business organisation.
2. To provide the knowledge and skills required to contribute to the analysis, design, testing and development of computer based information systems.
3. To expose students to current and future issues affecting the development of computer- based information systems, including ethical and environmental issues.
4. To enable the application of an analytical approach to problem solving and the investigation and evaluation of topics in the computing field.
5. To develop and improve the interpersonal and communications skills, particularly the investigative, formal writing, formal presentation and independent working skills that are required for the workplace or further study.
6. To prepare students for study at degree level and develop their experiences and outlook in relation to the world of computing.
7. To instil the time and project management skills needed to work effectively as an IT professional in the computing industry.

Distinctive features of the programme

The HND Computing programme aims to provide a broad education in computing and business information systems. It is the central course in the computing group of HNDs incorporating options from both *Website Development* and *Networks and Security*. It is therefore the most flexible choice of all the computing HNDs available to study at Bolton. Students completing the HND Computing have the widest range of career opportunities. The main themes explored and developed across all three years of the course are: systems analysis, database design, programming, website development, communications skills, group work and project work.

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 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 Computing: *Introduction to Programming*, *Information Systems & Databases* and *Computer Platforms.* These modules are supported by modules which introduce associated technologies: *Website Production*, and *Networking Fundamentals.*

In the second year students develop skills and knowledge in programming, databases, systems analysis and web development. 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.

Successful HND students will hold a nationally recognised qualification appropriate for employment in the following areas: IT operations, business analysis, IT support, database administration, programming and web development. Computing is a global activity and graduates are employable anywhere in the world.

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

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 systems, program and data modelling/design techniques that are fundamental to systems development

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 0hardware 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.

Programme structure

The HND Computing 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	C	20	1
CPU4001	Website Production	C	20	1
CPU4002	Information Systems & Databases	C	20	1
CPU4003	Introduction to Programming	C	20	1
CPU4004	Computer Platforms	C	20	1
CPU4005	Networking Fundamentals	C	20	1
CPU5000	Level 2 Project	C	20	1
CPU5001	Web Programming	C	20	1
CPU5002	Database Theory & Practice	C	20	1
CPU5006	Systems Analysis & Design	C	20	1
CPU5007	Object Oriented Methods	C	20	1
CPU5008	Data Structures & Algorithms	C	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, 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 students during their studies.

Learning activities (KIS entry)

	Course Year 1	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 Year 1	2
Written exams	0%	14%
Coursework	84%	86%
Practical exams	16%	0%

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 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 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

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 (http://www.bolton.ac.uk/Students/)
Students Union (http://www.ubsu.org.uk/)
Faculty or similar Handbook (http://www.bolton.ac.uk/amt)
Module database: (http://modules.bolton.ac.uk)
External examiners 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	KI	K2	K3	K4	K5	K6	C1	C2	C3	P1	P2	P3	P4	T1	T2	T3
Core Skills	CPU4000	C	DTA	DT						DTA						DTA	DTA	DT
Website Production	CPU4001	C		D							DTA	DTA			DTA	DA		
Information Systems & Databases	CPU4002	C	DTA	D	DTA		DT	DT	DTA		DTA	DT		DTA		DTA	DT	
Introduction to Programming	CPU4003	C	DT	D	DT	DTA	DT	DT				DT				D		
Computer Platforms	CPU4004	C	DTA	D								DT	DTA		D	D		
Networking Fundamentals	CPU4005	C	DTA	D								DT	DTA			D		
Level 2 Project	CPU5000	C	DT	DTA	DT		DTA	DTA	DTA	DTA	DTA	DTA		DTA		DA	DTA	DTA
Web Programming	CPU5001	C			DT	DT	DT	DT				DTA			DTA			
Database Theory & Practice	CPU5002	C			DTA		DTA	DTA			DTA	DT		DTA				
Systems Analysis and Design	CPU5006	C		DTA	DT		DTA	DTA	DTA		DTA	DTA	D			DTA		DA
Object Oriented Methods	CPU5007	C				DTA	DT	DT				D						
Data Structures and Algorithms	CPU5008	C			DTA	DTA	DT	DT										

Key

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

D = Developed, T = Taught, A = Assessed

Module listing

Module title	Module Code	New? ✓	Level	Credits	Type	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	C	None	CW	100	Y	-	-	-
Website Production	CPU4001	New	4	20	Stan	C	None	CW	50	-	CW	50	Y
Information Systems and Databases	CPU4002	New	4	20	Stan	C	None	CW	100	Y	-	-	-
Introduction to Programming	CPU4003	New	4	20	Stan	C	None	PRA	30	-	CW	70	Y
Computer Platforms	CPU4004	New	4	20	Stan	C	None	CW	50	-	CW	50	Y
Networking Fundamentals	CPU4005	New	4	20	Stan	C	None	PRA	50	-	EX	50	Y
Level 2 Project	CPU5000	New	5	20	Stan	C	None	CW	50	-	CW	50	Y
Web Programming	CPU5001	New	5	20	Stan	C	None	CW	50	-	CW	50	Y
Database Theory & Practice	CPU5002	New	5	20	Stan	C	None	CW	50	-	EX	50	Y
Systems Analysis & Design	CPU5006	New	5	20	Stan	C	None	CW	60	-	EX	40	Y
Object Oriented Methods	CPU5007	New	5	20	Stan	C	None	CW	40	-	CW	60	Y
Data Structures & Algorithms	CPU5008	New	5	20	Stan	C	None	CW	50	-	CW	50	Y

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	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 and 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				
Systems Analysis & Design	CPU5006	C		DA	DT	DTA		DA	D	D	D	D	D	D		D
Object Oriented Methods	CPU5007	C		DA		D		DTA	D			D		D		
Data Structures & Algorithms	CPU5008	C		DA		D	D	DTA	D			D				

Key
D = Developed, T = Taught, A = Assessed