

	Programme Specification
Programme title	BTEC HND Computing and Systems Development
Award and level of final and intermediate Awards	HNC/D Level 4 - 5
Awarding Body	Pearson Edexcel
Location of Delivery	Nescot
Mode of Study	Full Time
Nescot Course Code	N3225 & N3204
JACS Code	
UCAS Code	104G
QAA Subject Benchmarking Group	
Professional Body Accreditation	Edexcel/Pearson
Date of initial course approval/last review	
Date programme specification written	July 2010
Date programme specification due for revision	
Date programme specification revised	November 2016
Entry Requirements	<p>The minimum entry qualifications for the programme are:</p> <p>From A levels: 64 UCAS Tariff points</p> <p>BTEC: 64 UCAS Tariff points</p> <p>Plus: GCSE (A*-C): minimum of five subject including Mathematics and English Language.</p> <p>We will consider a range of alternative qualifications or experience that is equivalent to the typical offer.</p> <p>Applications from international students with equivalent qualifications are welcome.</p> <p>A minimum IELTS score of 6 overall, with no element below 5.5, or equivalent is required for those for whom English is not their first language.</p> <p>We will consider a range of alternative qualifications, or experience, such as level 3 Cisco, Microsoft or Oracle.</p>

Main educational aims of programme

- Equipping individuals with knowledge, understanding and skills to successfully gain employment in the computing industry.
- Enabling progression to an undergraduate degree or further professional qualification in computing or a related area.
- Providing opportunities for specialist study relevant to individual vocations and contexts.
- Supporting individuals employed or entering employment in the computing industry.
- Developing the individual's ability in the computing industry through effective use and combination of the knowledge and skills gained in different parts of the programme.
- Developing a range of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enabling learners to make an immediate contribution to employment.
- Providing flexibility, knowledge, skills and motivation as a basis for future studies and career development in computing.

Programme outcomes

The HNC/D Computing programme provides opportunities for the student to gain up-to-date knowledge and skills required in the IT industry. They gain the skills and confidence to approach and solve complex IT problems in practical context, through exposure and various hands-on activities included in the course programme of study. Students acquire academic and vocational preparation that help them thrive in the competitive world of work and achieve their future goals.

Students learn to approach and solve real life problems using tools and techniques for planning designing and implementing IT systems across different platforms. They learn about the importance of using the most appropriate quality assurance strategies and develop competence in analysing, evaluating and reporting on IT systems and business system options. The skills that learners gain include website design, database programming, software development, network infrastructure configuration, quality assurance, business skills for eCommerce etc. The department continuously renews its curriculum design by working collaboratively with industry experts who contribute and share their expertise with staff to ensure that programme specifications are inline with current industry requirements.

Knowledge and understanding:

1. Demonstrate understanding of the principles used in the design and implementation of hardware and software solutions
2. Demonstrate understanding of the process used for developing IT solutions
3. Demonstrate understanding of the methods and techniques use for gathering and processing information
4. Demonstrate understanding of the importance of planning and quality

Teaching and learning strategies and methods:

Tutor exposition
Group discussions
Handouts
Tutor demo/Video tutorials
Individual learning support
Guest speakers/Industry forum
Hands-on activities

Assessment

Written reports
Practical assessment
Presentations
Time constrained assessments
Case studies

<p>assurance in the development of IT solutions</p> <p>5. Demonstrate understanding of the implication of quality cost and time in IT products development</p>	
<p>Cognitive skills:</p> <ol style="list-style-type: none"> 1. Be able to apply good principles to the development of IT solutions 2. Be able to plan and design IT solutions for specific purpose 3. Be able gather, process and produce reports on information using appropriate IT systems 4. Be able to analyse and evaluate different business systems options for specific goals 	<p>Teaching and learning strategies and methods:</p> <p>Research activities Project work Group work Solution design and development</p> <p>Assessment Formative and summative assessments covering design and application of logical/creative thinking to solve critical problems.</p> <p>Students produce descriptive, analytic and evaluative reports on own work and work of others</p>
<p>Practical skills:</p> <p>Students on this course must complete 72 hours of work experience in an IT industry. They get the opportunity to apply the knowledge and technical skills they have acquired from curriculum studies. They also get a feel of the importance of equipping themselves with soft skills required to function correctly in the work place (e.g. team work, presentation skills, time management, courtesy etc.)</p> <p>The course incorporate vendor qualifications that further empower students with the skills and certifications that give them competitive advantage in job search when they graduate.</p> <p>The course gives the opportunity for students to engage in hands-on activities, get familiar with using industry equipments (hardware & software) to design and implement IT solutions which meet current industry standards.</p> <p>Students are exposed to the idea of working in a team and delivering presentation a large audience in the form of seminars and industry forums</p>	<p>Teaching and learning strategies and methods:</p> <p>Hands-on activities through a variety of complementary units that lead students to produce tangible and valid solutions to real world IT problems. Some of the strategies used include:</p> <ul style="list-style-type: none"> • Work Experience in IT • Practical labs with robust hardware IT equipments • Vendor certified trainings • Use of the most updated software for system developments • Industry <p>Assessment</p> <p>Work based assessments (through WEX placements) Practical lab assessments Time constrained assessments</p>

<p>Transferable skills:</p> <ol style="list-style-type: none"> 1. Be able to present information to specied audience using suitable format and structure 2. Be able to select and use various software tools for completing routine tasks 3. Be able to produce written reports of good academic quality using appropriate referencing styles 4. Be able to work in a team collaboratively to achieve common goals 	<p>Teaching and learning strategies and methods:</p> <p>Students are encouraged to work in teams, taking different roles, so as to develope team spirit and leadership skills for varous projects</p> <p>Students are exposed to using diferent tools and techniques for creating and presenting information to technical and executive audience</p> <p>Assessment</p> <ul style="list-style-type: none"> • Role play • Presentations • Team building activities • Academic writing and Harvard referencing • Observation • Seminar talks
<p>Programme overview</p> <p>This programme is offered in the following modes of study: Full Tme – One year for HNC and two years for HND Part Time – 2 years for HNC</p> <p>Students may enter, leave or interrupt this programme at; Level 4 – HNC (Certificate) Level 5 – HND (Full diploma)</p>	

Programme structure

Potential award

HNC Computing & Systems Development (120 Credits)

Enter module map

Core units (all mandatory)

Unit 1- Business Skills for eCommerce

Unit 2 – Computer Systems

Unit 3 – Employability and Professional Development

Optional units (at least 5 from this group)

Unit 5 – Emerging Technologies

Unit 7 – Research skills

Unit 9 - Systems Analysis & Design

Unit 14 – Website Design

Unit 17 – Database Design

Unit 19– Object Oriented Programming

Unit 21 – Software Application Testing

Unit 23 – Mathematics for Software Development

Unit 25 – Routing Concepts

Unit 26 – Small Office Home Office Network Configuration

Potential award

HND Computing & Systems Development (240 Credits)

Enter module map***Core units (all mandatory)***

Unit 1- Business Skills for eCommerce

Unit 2 – Computer Systems

Unit 3 – Employability and Professional Development

Unit 4 – Project Design, Implementation and Evaluation

Optional units (at least 5 from this group)***Level 4***

Unit 5 – Emerging Technologies

Unit 7 – Research skills

Unit 9 - Systems Analysis & Design

Unit 14 – Website Design

Unit 17 – Database Design

Unit 19– Object Oriented Programming

Unit 21 – Software Application Testing

Unit 23 – Mathematics for Software Development

Unit 25 – Routing Concepts

Unit 26 – Small Office Home Office Network Configuration

Level 5

Unit 35 – Web Application Development

Unit 38 – 3D Modelling and Animation

Unit 40 – Distributed Software Application

Unit 41 – Programming in Java

Unit 45 – Wide Area Network

Unit 46 – Network Security

Unit 47 – IT Virtualisation

Unit 50 – Work Based Experience