

HNC Civil Engineering STUDIES
Programme Specification Document July 2010

1. Qualification Higher National Certificate	2. Programme Title Civil Engineering Studies	3. UCAS Code	4. Programme Type Modular, Part Time
<p>5. Main Purposes and Distinctive Features of the Programme</p> <ol style="list-style-type: none"> 1. Understanding and application of core civil engineering subjects 2. Development of the fundamental skills of engineering analysis and design 3. Foundation for leadership, social and business awareness 4. Appreciation of environmental, health and safety and political issues 			
<p>6. What a graduate should know and be able to do on completion of the programme (objectives and learning outcomes)</p> <p>To gain the qualification the learner will have demonstrated: i) subject knowledge and understanding ii) cognitive skills iii) discipline-related practical and professional skills and iv) other general skills and capabilities (e.g. key/transferable/common) as specified in the learning objectives/outcomes for approved modules in the programme. Further details of module outcomes can be found in the programme document.</p> <p><i>A: Knowledge and understanding in the context of the subject(s)</i></p> <p>Knowledge and understanding of:-</p> <ol style="list-style-type: none"> 1. the scientific principles underpinning relevant current technologies, and their evolution. 2. mathematics necessary to support application of key engineering principles. 3. commercial and economic context of engineering processes. 4. management techniques which may be used to achieve engineering objectives within that context. 5. the requirement for Civil Engineering activities to promote sustainable development and the impact on all life and the environment. 6. ICT, fieldwork and laboratory practice. 7. contexts in which Civil Engineering knowledge can be applied (eg operations and management, application and development of technology etc). 8. the principles of managing engineering processes. <p><i>B: Cognitive skills in the context of the subject(s)</i></p> <p>Ability to:-</p> <ol style="list-style-type: none"> 1. apply quantitative methods and computer software relevant to Civil Engineering design and technology. 2. apply critical reasoning and analysis. 3. use the results of analysis to solve engineering problems, apply technology and implement engineering processes. 4. apply a systems approach to engineering problems through know-how of the application of the relevant technologies. 5. define a problem and identify constraints. 6. use and apply information from technical literature. 7. use appropriate codes of practice and industry standards. <p><i>C: Professional and Vocational Skills:</i></p> <p>Be able to:-</p> <ol style="list-style-type: none"> 1. produce or adapt design solutions according to customer and user needs. 2. ensure fitness for purpose (including operation, maintenance, reliability etc). 3. be aware of the framework of relevant legal requirements governing Civil Engineering activities, including personnel, health, safety, and risk (including environment risk) issues. 4. understand the need for a high level of professional and ethical conduct in civil engineering. 5. understand and have the ability to use relevant materials, equipment, processes, etc. 6. be aware of quality issues and their application to continuous improvement. <p><i>D: Other skills (e.g. key/transferable) developed in subject or other contexts</i></p> <ol style="list-style-type: none"> 1. Capacity to research, investigate, work with contradictory information and to learn 2. Communicate effectively, orally, through calculations in writing and through drawings 3. Numerical, manipulative and quantitative skills appropriate to engineering 4. Competent in the use of information technology tools 5. Ability to manage resources and time, to lead and to work within a team 6. Social and political awareness 7. Capacity to plan and monitor personal development (PDP) 			

7. Qualities, Skills & Capabilities Profile			
The educational and training goals of the programme seek to develop and demonstrate the following qualities, skills, capabilities and values in its graduates			
A Cognitive	B Practical	C Personal & Social	D Other
Power of quantitative and qualitative analysis	Writing skills	Self-motivation, PDP	
Flexibility of approach	Information processing	Organisation & time management	
Critical reasoning	Ability to get the job done	Teamwork	
Application of management theories		Recognition of environmental and H&S issues	
8. Subjects Studied, Levels, Credits & Qualifications			
Duration and structure of programme/modes of study/credit volume of study units) 2 years part-time. Level 1; 4 No 10 credit modules and 4 No 20 credit modules. Level 2; 4 No 10 credit modules.			
Core Modules		Optional Modules	
Level 2	Management of Construction Activities (10)	Structural Design (10) Mathematics B (10) Water Engineering (10) Transport Engineering (10) Group Project (10)	<i>HNC</i> <i>160 Credits</i>
Level 1	Communications & IT (10) Materials (10) Hydraulics (20) Mathematics A (20) Soil Mechanics (20) Structural Analysis (20) Surveying (10)	Construction (10) Professional Development (20)	<i>Cert HE</i> <i>120 Credits</i>

9. Learning, Teaching and Assessment Strategy	10. Other Information
<p><u>Learning and Teaching Methods</u> Active learning is promoted through lectures, tutorials, laboratory and fieldwork, library and guided study</p> <p><u>Assessment Methods</u> Assessment tasks are linked to the learning outcomes of each module: Essays, Writing up of Laboratory work, Analytical or Design assignments, Research assignments, Design submissions, Project.</p> <p><u>Assessment Classification System</u> Pass mark for a module 40% with at least 35% in each components of assessment. Merit mark for a module 60% with at least 35% in each components of assessment. Distinction mark for a module 75% with at least 35% in each components of assessment.</p>	<p><u>Date programme first offered</u> 1975</p> <p><u>Admissions Criteria</u> <i>Normal Requirements</i></p> <p>An AVCE, totalling 12 units, a minimum of 80 UCAS tariff points.</p> <p>A Levels accumulating to a minimum of 80 UCAS tariff points. The total may include points from AS Levels.</p> <p>EDEXCEL (BTEC) Qualifications - Pass National Certificate/Diploma.</p> <p>GNVQ - Pass Advanced GNVQ.</p> <p>NVQ - Pass NVQ Level 3</p> <p><i>Non Standard Entry</i> Cases dealt with by admissions tutor on individual basis</p> <p><u>Indicators of Quality and Standards</u> Validated by panel with external panel members.</p>