

## Appendix 1 PROGRAMME SPECIFICATION DOCUMENT

1. Qualification <b>BEng (Hons)</b>	2. Programme Title <b>Mechanical Engineering</b>	3. UCAS Code <b>H300</b>	4. Programme Type <b>Full-time Part-time</b>
<p>5. Main Purposes and Distinctive Features of the Programme</p> <p><u>Main Purpose</u></p> <ol style="list-style-type: none"> <li>I. To produce Mechanical Engineering graduates equipped to play key roles in industry, and public service.</li> <li>II. To have developed an understanding of the engineering principles and practices needed by a Professional Engineer, and to have applied them to Mechanical Engineering situations.</li> <li>III. To have developed environmental awareness, transferable skills and awareness of business in students.</li> </ol> <p><u>Special Feature</u></p> <ol style="list-style-type: none"> <li>I. To have a significant level of subject matter directly applicable to Mechanical Engineering.</li> </ol> <p>6. What a graduate should know and be able to do on completion of the programme</p> <p>The programme provides opportunities for students to develop and demonstrate knowledge, understanding and application in the following areas:</p>			
<p><u>Knowledge and understanding in the context of the subject(s)</u></p> <ol style="list-style-type: none"> <li>II. <i>Basic Analytical and Scientific principles relevant to Engineering.</i></li> <li>III. <i>Business and management methods relevant to Engineering.</i></li> <li>IV. <i>The role of the Engineer in modern society.</i></li> <li>V. <i>Detailed knowledge and understanding of Mechanical Engineering subjects.</i></li> </ol>		<p><u>Subject-specific practical/professional skills</u></p> <ol style="list-style-type: none"> <li>I. <i>Execution and analysis of experiments in a range of subjects.</i></li> <li>II. <i>Preparation of technical drawings and communication of Engineering Design solutions.</i></li> <li>III. <i>Use relevant software in technical and business applications.</i></li> </ol>	
<p><u>Cognitive skills in the context of the subject(s)</u></p> <ol style="list-style-type: none"> <li>I. <i>Analysis, definition and solution of engineering problems.</i></li> <li>II. <i>Planning, execution and reporting of original work.</i></li> <li>III. <i>Integration and evaluation of data from a variety of sources.</i></li> </ol>		<p><u>Other skills (e.g. key/transferable) developed in subject or other contexts</u></p> <ol style="list-style-type: none"> <li>I. <i>Ability to work as part of a team.</i></li> <li>II. <i>Capacity to learn and investigate.</i></li> <li>III. <i>Communicate effectively via different media.</i></li> <li>IV. <i>Manage resources and time.</i></li> </ol>	

## 7. Qualities, Skills & Capabilities Profile

The educational aims of the programme seek to develop and demonstrate the following capabilities, and qualities in its graduates.

A Cognitive	B Practical	C Personal & Social	D Other
Problem solving	Experimental skills	Leadership	Application to vehicles
Critical reasoning	Processing of Information	Team work	Scientific Analysis
Planning and Execution	Drawing skills	Environmental Awareness	Professional Awareness

## Appendix 2 Curriculum Skills Map

### Skills Map – BEng. (Hons) Mechanical.

	K1	K2	K3	K4	C1	C2	C3	S1	S2	S3	O1	O2	O3	O4
1														
Materials and Manufacturing		√	√	√							√	√		
Design and Applications		√	√	√		√		√	√		√	√		
Skills (Technology)		√			√	√		√	√		√			
Thermofluids	√	√			√	√					√	√		
Mechanical and Electronic Principles	√	√			√	√			√			√		
Engineering Analysis 1	√				√			√						
Engineering Science 1	√	√			√				√		√	√		
2														
Engineering Analysis 2	√				√			√			√			
Engineering Science 2	√	√			√				√		√	√		
Design Studies 2		√			√	√	√		√	√				√
Materials and Manufacturing		√	√	√		√			√		√	√		
Manufacturing Systems & Automation		√	√			√				√	√			
Engineering Systems 2		√		√		√					√			
3														
Engineering Design and Project	√	√				√	√			√	√	√	√	√
Commercial Environment			√	√	√						√	√	√	

<b>tures &amp; Materials</b>	√	√			√	√		√			√	√		
<b>Element &amp; Difference ions</b>	√	√		√	√	√		√			√	√		
<b>eeering Systems 3</b>				√							√	√		
<b>uter Aided facture</b>	√	√			√	√					√	√		

1 – Use of analytical techniques in an engineering context S1 – Able to use computer-based system

2 – Use of technical information related to engineering appropriate S2 – Able to demonstrate practical skills

Professional for the requirements of the relevant

3 – Knowledge of industrial practice in an engineering environment body

4 – Understanding of environmental issues and the role of the engineer in society S3 – Communication of engineering design solutions

Skills O1 – Able to demonstrate common

1 – Ability to analyse and synthesise situations

O2 – Ability to learn in an

Autonomous manner

2 – Apply engineering knowledge to a project

O3 – Awareness of personal and

Professional

3 – Completion of original work

development needs

Media

O4 – Communication via different