

UNIVERSITY OF PLYMOUTH MODULE RECORD

Module Code: DSGN 119	Credits: 10	Level : One
Module Title : Design as a Generic Tool		
Pre-Requisites : None		
Co - Requisites : None		
If Linked, Module linked to : None, but part of the design theme within DMME		
<p>Short Module Descriptor - (Maximum four lines 9pt print): This module lays the foundations for fostering a technologically-based, innovative and creative, holistic design identity. This is achieved through development of critical and analytical skills, coupled with experience in professional teamwork, and confidence in management of engineering/technological systems. The concept of <i>concurrent integrated design</i> is used to create a holistic view of the engineering design spectrum of activities.</p>		
Elements of Assessment		
<u>COURSEWORK</u> 100 %	<u>EXAMINATION</u> %	<u>EoM TEST</u> %
<p>Module Aims : To introduce the philosophy of design and show the commonality in design approaches in different disciplines and activities; To encourage innovative and creative concept formation through project work and case studies; to foster seamless integration of personal skills with group-work interaction. To build a portfolio of project work illustrating aspects of a holistic design process.</p>		
<p>Skills Elements : Facility in written and oral communication; practice in presentation skills, experience in group project work, development of analytical insight.</p>		
<p>Objectives / Learning Outcomes : Enhanced creativity; facilitation of ego-less team work; increased flair in presentations; enhanced confidence in ability to tackle a disparate range of engineering projects, increased awareness of the integration of design into the total engineering/product process (concurrent design); awareness of the cost/profit drivers in engineering; increased insight into reasons for engineering 'failures'.</p>		
<p>Indicative Syllabus Content : Module content will be divided into 5 main areas:</p> <ol style="list-style-type: none"> 1. The multi-faceted nature of design – design perceptions from, for example, an architect, a product designer, engineers from other disciplines. 2. Formulating a design envelope – requirements, constraints, criteria, iterative brain-storming. 3. The interaction between design, materials, processing/manufacture and service requirements. 4. Fostering innovation – brainstorming, looking for elegance, lessons from failures, looking for new twists to old ideas (Techoptimiser). 5. The human dimension to design – ‘heart of darkness’ syndrome, environmental impact, ergonomics, behaviour of teams. 		
Please complete the information below		
Faculty: Technology	Dept: DMME	Partner Institution: N/A
Module Leader: Professor M N James	Subject Group: SANA (Analysis)	Semester: S1
Registry Use Only		
VALIDATION- DATE OF APPROVAL:		DATE OF IMPLEMENTATION :
DATES(S) OF APPROVED CHANGES:		
ASC:	FEEBAND :	RESOURCE UNITS :