

Module code	TG-1306		
Module Title	Fundamental Programming for Engineers		
Degree/Diploma	Bachelor of Engineering Degree		
Type of Module	Major Option		
Modular Credits	2	Total student workload	5 hours/week
		Contact hours	3 hours/week
Prerequisite	None		
Anti-requisite	None		
Aims			
<p>This module aims to equip students with a mix of skills in computer programming using a high level language as the vehicle of instruction. The module will use examples which are relevant to the other modules covered in the programme, in particular the use of the microcontroller in the Engineering Design 1 module will be emphasised.</p>			
Learning Outcomes:			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	30%	- read and interpret basic computer programmes written in a high level language	
Middle order :	40%	- create new programme functions for specific tasks using a high level language	
Higher order:	30%	- apply new software functions for integration into an existing program to provide extra user-defined functionality	
Module Contents			
<ul style="list-style-type: none"> - Use an integrated design environment for the creation, debugging and execution of programs. - Develop software programs to compute the values of variables for typical engineering equations. - Write software programs receiving user input from a keyboard and outputting program results to a display monitor. - Develop software functions for integration into an existing program to provide extra user-defined functionality. 			
Assessment	Formative assessment	Quizzes and MCQs	
	Summative assessment	Examination: 50%	
		Coursework: 50%	
		<ul style="list-style-type: none"> - 2 programming assignments (15% each) - 1 written report (20%) 	