The University Of Sheffield.

Electronic & Electrical Engineering.

EEE125 PROGRAMMING

Credits: 10

Course Description including Aims

This unit deals with practical programming. Students will study and practise programming in C and Matlab to provide underpinning skills for their development as engineers.
This unit aims to:

1. To develop the programming skills of students
2. To provide an understanding of the approach to using C/C++ and Matlab to solve engineering problems

Outline Syllabus

Students learn the C programming language including the syntax, structured programming styles and file handling. They gain practical experience of these techniques through writing two extended computer programs. In addition students will be introduced to MatLab, create simple M-files, process data and produce various forms of output.

Time Allocation

(a) Computing lectures	10 hours
(b) Computing lab	40 hours
(c) Independent Study	50 hours including writing program code for assignment.

Recommended Previous Courses

Entry qualifications.

Assessment

Assessments will be in the form of take-home assignments, on-line tests, in-class programming assignments (under exam conditions) and continuous assessment.

Recommended Books

AUTHOR	BOOK TITLE	PUBLISHER
..Jeri R Hanly	Problem Solving and Program Design in C	Pearson
..Rama N Reddy	C programming for scientists and engineers with applications	Jones & Bartlett
..Al Kelley	A book on C: Programming in C	Addison-Wesley
.. Brian Kernighan	The C Programming Language	Pretnice-Hall

Objectives

On completion of the module successful students will be able to

- Design and construct programs written in C and to demonstrate the skills over a number of separate assessments
- Use of Matlab – both from the command line and via Matlab scripts, and to demonstrate the skills over a number of separate in-class assessments.