Module Code: CS102.3   **Version:** 2 /Oct 2018

Module Title: Programming with C Language   **Faculty:** Computing

Level: 1

Contact:

Module Leader	Email	VLE
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Delivery Pattern:

Credits	Contact Hours	Independent Study Hours	Total Learning Hours
3	105	60	165

Learning Outcomes:

LO1	Write programs in C language with correct syntax	Knowledge & understanding Application
LO2	Represent a complex Algorithm in a computer programming language	Synthesis Application Learning Reflection
LO3	Use Data Structures in a computer program	Application
LO4	Understand and modify a given computer program as required	Application, Analysis

Module Details:

Indicative Content	Introduction, basic programming, memory concepts, primitive data types operators, arithmetic and logical operations, control structures: the if and the if-else selection structure, repetition structures, the break and continue statements, the switch multiple selection structure, functions, duration of identifiers, scope rules, recursion, recursion vs. iteration, arrays.
Assessment Details	An Exam weighted at 60% and Coursework weighted at 40%. Coursework: 3 In Class Tests 30%. (LO1 & LO2) Practical Test or Viva 10% (LO1 & LO2) Exam: Final examination length 3 hours covering all LOs.
Learning strategies	2 hours lectures, 1 hour tutorial and 2 hours practical session per week.
Prospectus Information	This module introduces the concepts of programming, coding algorithms in C language and the use of data structures in a C program. The module consists of

	practical exercises in programming. The learning outcome of the module is that the participant should be able to develop new programs and understand and maintain existing C programs.
Reference Texts	1. Kernighan, B.W. & Ritchie, D.M (1988) The C Programming Language, 2nd Edition. Prentice Hall. (ISBN 007-6092003106) 2. Deitel, H. M. and Deitel, P.J. (2004) C : How to Program. 4th Edition. Prentice Hall. (ISBN 013122543X) 3. Horowitz, E. Fundamentals of Programming Languages, 2nd Edition. Springer (ISBN- 978-3642694080)
Other Resources	C compiler with an IDE