

Module Code	ACCB4017
Title	Software Development
Level	4
Credits	20
Pre-Requisites	None

AIM(S)

- To introduce students to software constructs and to the development of software using a high level programming language. Simple design concepts and good programming practice will be adopted.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- Understand the syntax and semantics of a high-level programming language and develop programs using good programming practices.
- Select and deploy basic software constructs using simple algorithms in the development of solutions to programming problems

INDICATIVE CONTENT

- The software life cycle – analysis, design, implementation and maintenance.
- Algorithm design – flow charts and pseudo-code.
- The programming environment – editor, compiler, debugger.
- High level language programming syntax and semantics e.g. C, C++, C#, etc.
- Data types, variables, operators, control structures, data structures, functions.
- Software testing and debugging.
- Documentation including user guides, technical guides, etc.
- Introduction to problem solving techniques for well-defined problems e.g. interpreting natural language problem definitions, variable identification techniques, divide and conquer, etc.

Study Time Allocation

The study time for the module is divided as follows:

Activity type	Hours	Percentage
Scheduled learning	48	24%
Independent learning	152	76%
Placement learning	0	0%
TOTAL	200	100%

ASSESSMENT

Assessment Component 1

☐ Written exam ☒ Coursework ☐ Practical

Mode of assessment	Volume	Weighting
Programming assignment with associated documentation	2800 words equivalent	70%

Assessment Component 2

☐ Written exam ☐ Coursework ☒ Practical

Mode of assessment	Volume	Weighting
In-class practical	2 hours	30%

Assessment Summary

Activity type	Percentage
Written exam	0%
Coursework	70%
Practical	30%
TOTAL	100%

INDICATIVE READING LIST

Module Code	ACCB4017	
Module Title	Software Development	
Classification	Reading List entry	Electronic*
Essential	Davenport, K. & Vine, M. (2014) <i>C Programming for the Absolute Beginner, 3rd Edition</i> , Cengage Learning PTR	☐
Essential	McGrath, M. (2012) <i>C Programming In Easy Steps 4th Edition</i> , In Easy Steps Limited Or 5 th edition (2018) Electronic only: http://ineasysteps.com/products-page/all_books/c-programming-easy-steps-5th-edition-ebook-pdf-2/	☐
Further	Greene, J. (2013) <i>Head First C#</i> , O'Reilly Media	☐

