

Module Code	ACCA5036
Title	Scripting and Programming Concepts
Date	09/09/2020
Level	5
Credits	20
Pre-Requisites	None

AIM(S)

- To instruct the development of software using a high level programming languages. 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 high-level programming languages 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
- Scripting languages eg Python, JavaScript, Ruby.
- 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	4500 words equivalent	100%

Assessment Summary

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

INDICATIVE READING LIST

Module Code	ACCA5036	
Module Title	Scripting and Programming Concepts	
Classification	Reading List entry	Electronic*
Essential	Robbins, J., (2018), Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics, O'Reilly Media	☐
Essential	Romano, F (2018) <i>Learn Python Programming: The no-nonsense, beginner's guide to programming, data science, and web development with Python 3.7</i> , 2nd Edition, Packt	☒
Further	Cannon, J (2014) <i>Python Programming for Beginners: An Introduction to the Python Computer Language and Computer Programming</i> , CreateSpace Independent Publishing Platform	
Further	McGrath, M (2013) <i>Python in Easy Steps</i> , In Easy Steps Limited	