MODULE SPECIFICATION

Part 1: Information			
Module Title	Object Oriented Software Design and Development		
Module Code	UFCFME-30-2	Level	Level 5
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Module type:	Standard		
Pre-requisites	Software Design and Development 2020-21		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description

Overview: Object Oriented Software Design and Development introduces the core concepts required to allow students to construct effective OO-based software systems.

Educational Aims: Demonstrate an understanding of object-oriented concepts

Outline the general trends in software development and identify the perceived advantages of object-oriented techniques

Create object-oriented designs using a recognised format

Create efficient object-oriented software to a required specification.

Test programs to ensure they meet requirements

Outline Syllabus: Advanced programming.

Object-oriented concepts.

Trends in software development.

Perceived advantages of object-oriented techniques e.g. modularity, encapsulation, re-use, iterative development, interactivity, greater client involvement in design, Identification of objects, classification, inheritance, polymorphism.

Creating object-oriented designs using a recognised format.

Creating efficient object-oriented software to a required specification.

O/O testing strategies, producing a detailed test plan and supporting documentation.

Teaching and Learning Methods: Introductory lectures covering the fundamentals and technical underpinning of the module for the first assessment before progressing onto practical delivery through a series of lessons, workshops and practical tasks in the classroom to develop the tools and techniques required to complete the practical assessment for this module.

Part 3: Assessment

Object Oriented Software Design & Development is assessed using a combination of a practical examination/Time Constrained Assessment (TCA) and Software Development practical portfolio.

The Time Constrained Assessment will assess student's ability to design software to utilise Object Orientation efficiently using appropriate technical documentation and design methodologies. The TCA will be completed under exam conditions in a classroom/lab with access specialist software and design tools.

The practical portfolio will require students apply their knowledge of Object Orientation to develop and test a software solution using Object Orientated techniques with attention to elegant and efficient code design. The completed software solution should utilise industry best practice and include extensive testing.

Tutor-lead formative feedback will be available throughout the module.

First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Practical Skills Assessment - Component A	✓	40 %	Practical exam (2 hours)
Portfolio - Component B		60 %	Practical Portfolio
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Practical Skills Assessment - Component A	✓	40 %	Practical exam (2 hours)
Portfolio - Component B		60 %	Practical Portfolio

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will achieve the following learning outcomes:

Module Learning Outcomes	Reference
Critically evaluate an object-oriented system	MO1
Apply an object-oriented methodology to design a practical solution to a given problem	MO2
Implement efficient and elegant code using a suitable object-oriented programming language and relevant software tools	MO3
Test and document a complete object oriented application.	MO4

Contact Hours

Independent Study Hours:	
Independent study/self-guided study	192
Total Independent Study Hours:	192
Scheduled Learning and Teaching Hours:	
Face-to-face learning	108
Total Scheduled Learning and Teaching Hours:	108
Hours to be allocated	300
Allocated Hours	300

Reading List

The reading list for this module can be accessed via the following link:

https://rl.talis.com/3/uwe/lists/191A5CA5-84FA-5EF6-E16C-CCD8C3E9D807.html

Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Applied Computing [Sep][FT][UCW][2yrs] FdSc 2019-20

Applied Computing [Sep][PT][UCW][3yrs] FdSc 2019-20