STUDENT AND ACADEMIC SERVICES

UWE Bristol | University of the West of England

MODULE SPECIFICATION

Part 1: Information			
Module Title	Object-Oriented Analysis, Design and Programming		
Module Code	UFCFPD-15-M	Level	Level 7
For implementation from	2018-19		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Contributes towards	Software Engineering [Sep][FT][Frenchay][1yr] MSc 2018-19 Software Engineering [Sep][PT][Frenchay][2yrs] MSc 2018-19		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description

Educational Aims: See Learning Outcomes.

Outline Syllabus: Analysis and Design:
There is a strong emphasis on the critical evaluation aspect of the design instead of simply being
able to do designs. The specific areas include:

Design criteria
Use cases
Classes and objects
Inheritance, Abstract classes and Interfaces
Class relationships
Interaction modelling

Programming: There is an emphasis on the evaluation of language features. Specific features include:

Fundamental:
Classes and objects, message passing
Inheritance, Abstract classes and Interfaces, polymorphism

Concurrency and Networking:
Thread, Thread synchronisation
Client server programming

Database:
Fundamental concepts and implementation

Teaching and Learning Methods: Scheduled learning There are 3 hours scheduled "lectorial"-style classes weekly which include interactive lectures, tutorials and practical sessions, where in the theory and practice of object-oriented systems design and development are demonstrated; questions are invited and freely discussed. Students are encouraged to articulate and present their analysis and design models of some case studies, as well as carrying out programming tasks. All lecture slides and other relevant learning materials are available on the Blackboard VLE.
Independent learning Students are expected to spend about 6 hours per week to engage with essential reading, case study preparation, assignment work and completing the weekly tasks set by the module.

Contact Hours:

Activity:
Contact time: 36 hours
Assimilation and development of knowledge (independent learning): 74 hours
Coursework and exam preparation: 40 hours
Total study time: 150 hours

Part 3: Assessment

The assessment strategy will consist of one coursework assessment and one examination. The coursework assessment will be based on work covered in lectures and tutorials. The examination will be based on topics covered in the lectures relating to the learning outcomes.

Summative assessment:
Component A: Examination, 2 hours, questions will focus on the design aspect involving students demonstrate their understanding of the concepts, their ability to apply the concepts to produce designs and their ability to critically evaluate the designs.

Component B: Coursework will be around a case study. Each student will be expected to design and implement a solution based on some given cases studies and to explain their design and implementation choices.

Formative assessment:
Each week, tasks will be set to re-enforce the concepts covered in the lectures. The weekly classes will be used to explore and discuss software design concepts and students are expected to complete programming tasks. Feedback will be given.

First Sit Components	Final Assessment	Element weighting	Description
Written Assignment - Component B		50 %	Coursework (design and implement a software system)
Examination - Component A	✓	50 %	Written examination (2 hours final assessment)

Resit Components	Final Assessment	Element weighting	Description
Written Assignment - Component B		50 %	Coursework (design and implement a software system)
Examination - Component A	✓	50 %	Written examination (2 hours final assessment)

Part 4: Teaching and Learning Methods	
Learning Outcomes	On successful completion of this module students will be able to: 	Module Learning Outcomes

	Module Learning Outcomes
MO1	Understand and have knowledge of the typical characteristics of object-oriented software systems
MO2	Understand and have knowledge of software design criteria
MO3	Apply object-oriented analysis and design techniques to analyse and design object-oriented system
MO4	Critically evaluate Java language features and apply Java-programming skills to effectively design and implement object-oriented software solutions
MO5	Critically evaluate software design with respect to design criteria

Contact Hours

Contact Hours	
Independent Study Hours:	
Independent study/self-guided study	114
Total Independent Study Hours:	114
Scheduled Learning and Teaching Hours:	
Face-to-face learning	36
Total Scheduled Learning and Teaching Hours:	36
Hours to be allocated	150
Allocated Hours	150

Reading List	*The reading list for this module can be accessed via the following link:* https://uwe.rl.talis.com/modules/ufcfpd-15-m.html