ZCOM H2202: Object Oriented Software Development

Module Title:	Object Oriented Software Development
Language of Instruction:	English

Credits:	10

NFQ Level:	6

Module Delivered In	No Programmes

Teaching & Learning Strategies:	There will be 5 hours for practical work and short lectures (20-30 minute lectures). The practical sessions will provide students with the immediate opportunity to implement and reinforce the material presented in the short lectures.

Module Aim:	To introduce the general concepts of object oriented programming and software development

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Design and implement software solutions to complex problems using the object oriented paradigm.
LO2	Be sufficiently familiar with the architecture of the chosen language to be capable of understanding new language features and libraries as they evolve.
LO3	Demonstrate an understanding of the object oriented paradigm
LO4	Implement object oriented constructs.
LO5	Develop object oriented GUI based programs.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

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Module Content & Assessment

Indicative Content
Concepts of Object Oriented Programming Concepts of object oriented programming such as objects; classes; abstractions; associations; introduction to the object model.
Object oriented analysis Requirement specifications; identification of classes, attributes, operations and associations; use-cases; responsibilities.
Object oriented design Polymorphism; inheritance; generalisation; interaction diagrams, state transition diagrams. Unified Modelling Language
Two-dimensional graphics Graphics objects, colours, fonts, graphics and drawing methods.
Multimedia Images, Animation, Audio and Video Implementing persistence and associations.
Implementing GUIs: UI components; the event model, AWT, Swing. Using and creating library components; reuse.
Testing and debugging: Unit and incremental testing. New and advanced topics including using streams, threading, and exception handling

Assessment Breakdown	%
Continuous Assessment	60.00%
End of Module Formal Examination	40.00%

Continuous Assessment

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Other	In-lab programming test 1	1,3,4	10.00	Week 10
Other	In-lab programming test 2	1,2,3,4	15.00	Week 20
Other	In-lab programming test 3	1,2,3,4,5	20.00	Week 26
Other	Participation in-lab, completing exercises	1,2,3,4,5	15.00	n/a

No Project

No Practical

End of Module Formal Examination

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Formal Exam	Formal written examination	1,2,3,4,5	40.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	30 Weeks per Stage	1.00
Laboratory	30 Weeks per Stage	4.00
Estimated Learner Hours	30 Weeks per Stage	1.67
	Total Hours	200.00