Module Title:	Object Oriented Software Development 2
Language of Instruction:	English

Credits:	5

NFQ Level:	6

Module Delivered In	3 programme(s)

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	Develop object oriented GUI based programs.
LO2	Be sufficiently familiar with the use of persistence through Database Connectivity to store application data.
LO3	Demonstrate the use of Testing and Debugging techniques to develop more robust applications.

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	

Module Content & Assessment

Indicative Content
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	50.00%
End of Module Formal Examination	50.00%

Continuous Assessment				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Other	In-lab programming test 1	1,3	20.00	Week 6
Other	Take Home Project	1,2,3	30.00	Week 12

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	50.00	End-of-Semester

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

Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	12 Weeks per Stage	1.00
Laboratory	12 Weeks per Stage	4.00
Estimated Learner Hours	15 Weeks per Stage	4.33
	Total Hours	125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCSOF_B	Bachelor of Science (Honours) in Software Development	4	Mandatory
CW_KCSOF_D	Bachelor of Science in Software Development	4	Mandatory
CW_KCCOM_C	Higher Certificate in Science in Computing Programming	4	Mandatory

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