

Module Title:	Introduction to Object Oriented Programming
Language of Instruction:	English
Credits:	10
NFQ Level:	8
Module Delivered In	3 programme(s)
Teaching & Learning Strategies:	A mix of traditional lectures, programming practicals and projects that will enable the student to apply the problem solving skills necessary for object oriented programming to develop complete programs.
Module Aim:	To provide the student with: 1. The problem solving skills necessary for well defined object oriented programs; 2. The basic concepts of object oriented programming; 3. The capability to develop simple object oriented programs.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Utilise problem solving techniques to analyse a well defined problem and develop a solution for it;
LO2	To be able to use and manipulate different input and output devices, data structures and suitable libraries;
LO3	To develop the skills necessary to be able to design and use classes and objects;
LO4	Produce maintainable programs with suitable documentation and standards;
LO5	Design, develop, test, and debug simple object-oriented programs.
Pre-requisite learning	
Module Recommendations	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content

Classes & objects:

Classes, objects, functions, instance & local variables, scope, parameter passing, object creation, object initialisation, encapsulation and information hiding. To be able to pass variables, arrays and objects to functions by reference.

Data structures:

To be able to create, populate and search data structures of objects like the array.

To use libraries:

To use a suitable graphical library.

Input/Output:

To be able to use and manipulate input devices (keyboard, mouse) and output devices (console) through a graphical library.

Strings:

To be able to use and manipulate strings and be able to use the different library functions available.

Files:

File handling concepts, loading images, reading & writing to files.

Assessment Breakdown	%
Continuous Assessment	10.00%
Project	40.00%
Practical	10.00%
End of Module Formal Examination	40.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	Some written exams to be given. The written exams should be a similar format and standard to their final written exam.	1,2,3,4	10.00	n/a

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	A number of projects (2 or more) to be given throughout the year, to be done in the labs and on the students own time.	1,2,3,4,5	40.00	n/a

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	A number of practical programming lab exercises to be given and evaluated.	1,2,3,4,5	10.00	n/a

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	The final examination will include questions on many aspects of the course.	1,2,3,4	40.00	End-of-Semester

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

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	4.00
Laboratory	12 Weeks per Stage	4.00
Estimated Learner Hours	15 Weeks per Stage	10.27
Total Hours		250.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCCGD_B	<u>Bachelor of Science (Honours) in Computer Games Development</u>	2	Mandatory
CW_KCIAD_B	<u>Bachelor of Science (Honours) in Computing in Interactive Digital Art and Design</u>	2	Mandatory
CW_KCIAD_D	<u>Bachelor of Science in Computing in Interactive Digital Art and Design</u>	2	Mandatory