

<b>Module Title:</b>	Introduction to Object Oriented Programming
<b>Language of Instruction:</b>	English
<b>Credits:</b>	10
<b>NFQ Level:</b>	8
<b>Module Delivered In</b>	<a href="#">3 programme(s)</a>
<b>Teaching &amp; Learning Strategies:</b>	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.
<b>Module Aim:</b>	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.
<b>Learning Outcomes</b>	
<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.
<b>Pre-requisite learning</b>	
<b>Module Recommendations</b>	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
<b>Incompatible Modules</b>	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b>	
<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**

<b>Workload: Full Time</b>		
<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	<a href="#">Bachelor of Science (Honours) in Computer Games Development</a>	2	Mandatory
CW_KCIAD_B	<a href="#">Bachelor of Science (Honours) in Computing in Interactive Digital Art and Design</a>	2	Mandatory
CW_KCIAD_D	<a href="#">Bachelor of Science in Computing in Interactive Digital Art and Design</a>	2	Mandatory