

Module Title:	Programming 1
Credits:	5
NFQ Level:	6
Module Delivered In	8 programme(s)
Teaching & Learning Strategies:	Combination of lectures and practical laboratory sessions. Lectures will take the form of traditional theory and workshop activities. Workshop activities entail interaction with students whilst building programs from scratch using data projector facilities. Laboratory sessions take the form of formative assessment sheets with individual interaction with students. There is a strong emphasis on writing code from scratch live in class on each new concept.
Module Aim:	To provide the student with: 1. the problem solving skills necessary for programming 2. the basic concepts of programming. 3. the capability to develop complete programs
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Comprehend and utilise problem solving techniques to analyse a problem and develop a solution for it;
LO2	Write simple programs based on simple problem-solving algorithms they devise;
LO3	Utilise and comprehend core programming concepts
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

Introduction to problem solving

Algorithms & pseudocode; translating pseudocode into program code; Introduction to a relevant language; identifiers, keywords, comments. Data types, variables, assignment statements, constants, arithmetic expressions and operators, operator precedence, console I/O.

Selection Control

Conditional expressions (single and compound), selection control structures.

Iteration Control

Iteration control structures - fixed iteration and condition-controlled iteration structures.

Assessment Breakdown

	%
Continuous Assessment	70.00%
End of Module Formal Examination	30.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	Assessment 1: The student will be assessed on their understanding of basic programming concepts	3	20.00	Week 6
Other	Lab 2: The student will be assessed on their ability to write a program that utilises a selection structure.	1,2,3	20.00	Week 9
Other	Lab 3: The student will be assessed on their ability to write a program that utilises an iteration structure.	1,2,3	20.00	Week 12
Performance Evaluation	Active participation in the Lab	1,2,3	10.00	n/a

No Project

No Practical

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	Written exam assessing knowledge of concepts covered throughout semester.	1,2,3	30.00	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	2.00
Laboratory	12 Weeks per Stage	3.00
Tutorial	12 Weeks per Stage	1.00
Estimated Learner Hours	15 Weeks per Stage	3.53
Total Hours		125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KWCCD_B	Bachelor of Science (Honours) in Creative Computing and Digital Innovation	1	Mandatory
CW_KCCYB_B	Bachelor of Science (Honours) in Cyber Crime and IT Security	1	Mandatory
CW_KCCIT_B	Bachelor of Science (Honours) in Information Technology Management	1	Mandatory
CW_KCSOF_B	Bachelor of Science (Honours) in Software Development	1	Mandatory
CW_KCCYB_D	Bachelor of Science in Cybercrime and IT Security	1	Mandatory
CW_KCCSY_D	Bachelor of Science in Information Technology Management	1	Mandatory
CW_KCSOF_D	Bachelor of Science in Software Development	1	Mandatory
CW_KCCOM_C	Higher Certificate in Science in Computing Programming	1	Mandatory