

Module Title:	Assembly and C
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	5 programme(s)
Teaching & Learning Strategies:	Students will be assessed by means of continuous assessment.
Module Aim:	To enable the student to program in assembly.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Program in 80X86 assembly language;
LO2	Understand the use of arrays in assembly.
LO3	Understand the passing of parameters in assembly.
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

Introduction to CPU and Registers. Concepts of sequence, selection and iteration.

Memory Variables

Introduction to usage of memory variables

Data movement instructions

Moving values to from registers and moving values to from memory.

Control transfer instructions

Using control transfer instructions to call and jump to blocks of code.

Arrays

Using pointers to access array elements

Stack

Push and pop operations. Accessing elements from the stack.

Parameter passing

Pass parameters using assembly language

C programming

Introduction to programming in c.

Assessment Breakdown

%

Continuous Assessment

100.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	In Class and/or In Lab Continuous Assessment	1,2,3	100.00	n/a

No Project

No Practical

No End of Module Formal Examination

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	1.00
Laboratory	12 Weeks per Stage	4.00
Independent Learning	15 Weeks per Stage	4.33
Total Hours		125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCCYB_B	Bachelor of Science (Honours) in Cyber Crime and IT Security	4	Mandatory
CW_KCSOF_B	Bachelor of Science (Honours) in Software Development	4	Mandatory
CW_KCCYB_D	Bachelor of Science in Cybercrime and IT Security	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