Module Details

Module Code:	COMP C8056
Full Title:	Programming 1 APPROVED
Valid From::	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	English
Duration:	1 Semester
Credits::	5
Module Owner::	Tony McCarron
Departments:	Unknown
Module Description:	Students completing this module will understand the core principles of computer systems and the fundamental structures of high-level programming including an introduction to classes and objects.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	Module Learning Outcome Description
MLO1	Take a simple problem statement and analyse, design, implement and test a solution.
MLO2	Explain and apply programming control structures.
MLO3	Explain and apply user-defined functions.
MLO4	Use basic Data structures such as arrays and array lists.
MLO5	Define and use Classes and Objects.
MLO6	Understand and use Inheritance and Polymorphism to solve a problem. Appreciate the benefits of good software design.

Pre-requisite learning
Module Recommendations
This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).
No recommendations listed

Module Indicative Content
Programming constructs Variables, types, expression and assignment
-Control structures Conditional and iterative control structures
-Variable Scope Local and global variables
-Methods Method definition, invocation, parameter passing, return types, and method overloading
C# Classes Calling standard library methods, Method overloading
Inheritance Introduction to inheritance in a class hierarchy.

Module Assessment

Assessment Breakdown	%
Course Work	100.00%

Module Special Regulation

Assessments

Full Time On Campus

Course Work			
Assessment Type	Continuous Assessment	**% of Total Mark**	100
Marks Out Of	0	**Pass Mark**	0
Timing	Every Second Week	**Learning Outcome**	1,2,3,4,5,6
Duration in minutes	0		
Assessment Description The formative assessment will normally take the form of practical lab based tests and a small project. Students will be given a simple problem statement and will be required to analyse, design, code and test a solution to the problem. The assessment criteria will be concerned with the students' demonstrated understanding of and ability to apply basic programming control structures, user-defined functions classes and objects to solve simple problems and a demonstrated ability to test their solutions.			

No Project

No Practical

No Final Examination

Part Time On Campus

Course Work			
Assessment Type	Continuous Assessment	**% of Total Mark**	100
Marks Out Of	0	**Pass Mark**	0
Timing	Every Second Week	**Learning Outcome**	1,2,3,4,5,6
Duration in minutes	0		
Assessment Description The formative assessment will normally take the form of practical lab based tests and a small project. Students will be given a simple problem statement and will be required to analyse, design, code and test a solution to the problem. The assessment criteria will be concerned with the students' demonstrated understanding of and ability to apply basic programming control structures, user-defined functions classes and objects to solve simple problems and a demonstrated ability to test their solutions.			

No Project

No Practical

No Final Examination

Reassessment Requirement
A repeat examination *Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.*
Reassessment Description Reassessment will normally consist of a similar programming assignment under lab-based exam conditions.

Module Workload

Workload: Full Time On Campus

Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Practical	Contact	In the practical sessions, the delivery of new material will be integrated with the practical implementation of that material (approximately: 40% delivery, 60% implementation). This flexible mode of teaching allows students to derive maximum benefit from the sessions. Students will work both individually and in groups to enhance their learning.	Every Week	3.00	3
Directed Reading	Non Contact	No Description	Every Week	2.00	2
Independent Study	Non Contact	No Description	Every Week	3.00	3
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	3.00

Workload: Part Time On Campus

Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Practical	Contact	In the practical sessions, the delivery of new material will be integrated with the practical implementation of that material (approximately: 40% delivery, 60% implementation). This flexible mode of teaching allows students to derive maximum benefit from the sessions. Students will work both individually and in groups to enhance their learning.	Every Week	3.00	3
Directed Reading	Non Contact	No Description	Every Week	2.00	2
Independent Study	Non Contact	No Description	Every Week	3.00	3
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	3.00

Module Resources

Recommended Book Resources

Brian Jenkins. (2018), C# Coding : A step by step guide for absolute beginners, ATS Coding Academy and Amazon Kindle.

Sharp, John. (2013), Microsoft Visual C# 2013 Step by Step, 1st ed.. Microsoft Press, p.825, [ISBN: 978-0-7356-8].

Supplementary Book Resources

Jennifer Greene, Andrew Stellman. (2013), Head First C#, 3rd ed.. O'Reilly Media Formats, p.1100, [ISBN: 978-1-4493-58].

Jay Hilyard, Stephen Teilhet. (2015), C# 6.0 Cookbook, 1st ed.. O'Reilly Media Formats, [ISBN: 978-1-4919-21].

Blundell, B.G.. (2007), Computer Systems and Networks, Thomson, [ISBN: 978-1-84480-639-3].

Forouzan, B.A.. (2007), Data Communications and Networking, McGraw-Hill, [ISBN: 007-125442-0].

This module does not have any article/paper resources

Other Resources

Website, C# Station,
http://www.csharp-station.com/

Website, C# Corner,
http://www.c-sharpcorner.com/

Wedsite, Code Project,
http://www.codeproject.com/