MULTIMEDIA UNIVERSITY®

COURSE INFORMATION

1 .	**Name of Course**	Programming for Mobile Applications	
2 .	**Course Code**	DMP 5018	
3 .	**Type of Course** **(e.g. : Core, major, elective etc.)**	Elective	
4 .	**Synopsis**	This course exposes students to basic mobile application development.	
5 .	**Version** **(State the date of theSenate's approval - previous and the current approval date)**	Current: September 2017 Previous: April 2017 New version: ADC Oct 2017 Special Senate 93 Nov 2017	
6 .	**Name(s) of Academic Staff**	Lim Liyen, Muhammad Loqman bin Samat, Norihan Hamzah, Nurasma Shamsuddin, **Usha Vellappan**, Yap Hui Yen	
7 .	**Semester and Year Offered**	Year 2, Trimester 2	
8 .	**Credit Value**	3	
9 .	**Pre-Requisite**	DCS5038 Program Design	
10 .	**Objective of the course in the programme:** This course prepare students for careers in the expanding fields of mobile application development by using C# programming.		
11 .	**Justification for including the course in the programme:** This course will be useful for IT students in acquiring knowledge in mobile development concepts using C# programming language.		
12 .	**Course Learning Outcomes (CLO)**	**Domain**	**Level**
	CLO1: Demonstrate the ability to work in a team while completing a mobile application to manipulate data and display output as required by the user.	Affective	3
	CLO2: Use an Integrated Development Environment (IDE) to write, test and debug mobile programming codes to produce well designed	Cognitive	3
	CLO3: Use basic mobile programming programming constructs with correct syntax and logical flow to write simple code segments.	Cognitive	3
	CLO4: Build working programs based on correct syntax by using basic and advanced mobile programming concepts to solve business related problems	Cognitive	3

13 . **Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment:**

Course Learning Outcomes (CLO) (Must tally with CLOs in item 12)	Programme Learning Outcomes (PLO)								Teaching Methods	Assessment Method
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8		
CLO1					✓				Lecture, Lab	Project
CLO2		✓							Lecture, Lab	Lab Submission
CLO3	✓								Lecture, Lab	Quizzes, Midterm
CLO4		✓							Lecture, Lab	Assignment
Total	**1**	**2**			**1**				*Indicate the relevancy between the CLO and PLO by ticking "✓" the appropriate relevant box (This description must be read together with standards 2.1.2, 2.2.1, and 2.2.2 in Area 2 – pages 16 & 18 of COPPA 2.0)*	

14 . **Transferable Skills:**

Teamwork skills

15 . **Distribution of Student Learning Time (SLT)**

	Course Content Outline	**CLO	Teaching and Learning Activities – Guided Learning (F2F)* *L	*T	*P	*O	Guided Learning (NF2F)*	Independent Learning (NF2F)*	Total SLT
1	**Introduction to Net Framework, OOP concept and IDE** This topic covers **o**verview of .NET Framework, advantages of .NET Framework, features of .NET Framework, Object Oriented Programming Concepts in C# and introduction to IDE (Visual Studio)	**CLO3**	2		0			2	4
2	**Data Types and Variables** This topic covers introduction of data types and variables, declaring variables and initialization of variables, using basic operators: arithmetic, logical comparison & assignment as well as understanding Boolean, equality/relational and conditional logical operators.	**CLO2,CLO3**	2		2			2	6
3	**Conditional Statements, Looping and Array** This topic discusses the use of conditional statements: if-else statement and switch statement, writing For Statement, While Statement and Do Statement. Declaring an array, initializing arrays, access to the elements of an array and multidimensional arrays will be discussed as well.	**CLO2,CLO3**	4		4			4	12
4	**Methods** This topic discusses data type, class declaration, members, access functions and arrays of class objects.	**CLO2, CLO3**	2		2			2	6
5	**Classes** This topic discusses about defining method, calling method, recursive method and passing parameter.	**CLO2, CLO3**	4		4			4	12
6	**Database** This topic covers creating databases, tables and inserting data into the table fields. Adding a database to a project and configuring the connection string. Create, retrieve, update and delete data entries in a database table using a C# application.	**CLO2,CLO3,CLO4**	4		4			4	12
7	**Cross Platform Mobile Application Development** This topic covers introduction to Mobile Apps for diverse platform devices (Android, iPhone & history of other mobile apps). Code design, UI Components for Mobile Platforms, multimedia & animation, adapters. Database: Link to local data/external data sources and platform specific features will be covered too.	**CLO1,CLO2,CLO3, CLO4**	8		8			8	24
								Total SLT	**76**

SUMMATIVE ASSESSMENT

1. Continuous Assessment	Percentage %	Total SLT
Lab Submissions	20%	24
Assignment	20%	5
Project	30%	8
Quizzes	10%	2
Test	20%	5
Total SLT for Continuous Assessment		**44**

	2. Final Assessment	Percentage %	Total SLT	
			F2F	ILT
	Final Exam	0%	0	0
		Total SLT for Final Assessment (F2F + NF2F)		**0**
	Grand Total	**100%**		**120**

****Indicate the CLO based on the CLO's numbering in Item 12.**
***L= Lecture, *T= Tutorial, *P= Practical, *O= Others, F2F*= Face to Face, NF2F*= Non Face to Face**

16 . **Identify Special Requirement to Deliver the Course (e.g., software, nursery, computer lab, simulation room):**
Xamarin

17 . **Main References:**
Sharp, J. (2016). Microsoft Visual C# Step by Step, 8th Ed., Microsoft Press.
Michaelis, M. and Lippert, E. (2016). Essential C# 6.0, 5th Ed., Addison-Wesley Professional.

18 . **Additional References:**
Hermes, D. (2015). Xamarin Mobile Application Development: Cross-Platform C# and Xamarin. Forms Fundamentals, 1st Ed., Apress.
Panigraphy, N. (2015). Xamarin Mobile Application Development for Android, 2nd Ed., Packt Publishing.

Note:

	Cells shaded light grey contain formulas / fixed values. Edit these formulas only if needed.