

Course unit title:	User Interface Development
Course unit code:	CSW231
Type of course unit: (Compulsory/optional)	Compulsory
Level of course unit: (First, second or third cycle)	Bachelor (1st cycle)
Year of study:	3
Semester when the unit is delivered:	5
Number of ECTS credits allocated:	5
Name of lecturer(s):	TBA
Learning outcomes of the course unit:	
<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Exemplify the basic syntax of a visual programming language • Design and implement module-based solutions • Design and built event-driven graphical user interface applications using industry standard tools • Construct and manipulate relational database structures (and their data) programmatically 	
Mode of delivery:	Face-to-face
Prerequisites and co-requisites:	CSC205 (for BECE, BCSC), CSW205 (for BWIS)
Recommended optional program components:	None
<p>Course contents:</p> <p>Objective: To introduce the basic ideas of visual programming. This course discusses implementation of Graphical user interfaces using a visual programming language. Students will get familiar with GUI design and event driver programming. During the course students will have to construct windows applications using a popular visual programming language (e.g. Visual Basic, Visual C#, Visual C++, Delphi).</p> <p>Description: Introduction: Introduction to a Visual Programming language. Understanding the development environment.</p>	

Control structures:

Single selection, double selection, multiple selection, loop structures (while, for).

Program modules:

Procedures, functions, arguments, duration, scope.

Arrays:

Declaring, allocating, initializing, passing an entire array and array elements to a procedure/function.

Graphical User Interface:

Understand and use controls like forms, grids, labels, text boxes, menus, check boxes, radio buttons, buttons, tabs, MDI, combo boxes in order to create the GUI experience. Grouping components with container, manipulating component properties.

Events and event handling:

Understanding events and handling various types of event programmatically. Working with component specific events and creating dynamic user interfaces

Working with a database engine:

Brief introduction to a database engine. Basic principles behind tables, fields, primary and foreign keys. Creating and using relationships.

Applications:

Developing applications with database connectivity and data-bounding controls to database/table fields. Manipulating multiple tables, views and queries in order to provide 'release-status' functionality to an end user client. Creating setups and reporting.

**Recommended
or
required reading:**

Deitel P., Deitel H., *C# 2010 for programmers, 4/e*, Pearson, 2011

Bradley & Millspaugh, *Programming in Visual C# 2008, 3/e*, McGraw-Hill, 2010

Likness J., *Building Windows 8 Apps with C# and XAML*, Pearson, 2013

Snell M., Power L., *Microsoft Visual Studio 2010 Unleashed*, Pearson, 2011

Bradley & Millspaugh, *Programming in Visual Basic 2008*, McGraw-Hill International Edition

Brian Siler and Jeff Spotts, *USING MICROSOFT VISUAL BASIC .NET QUE*

	<p>Deitel, VISUAL BASIC .NET – HOW TO PROGRAM, et al. Prentice Hall</p> <p>Julian Templeman and Andy Olsen, MICROSOFT VISUAL C++ .NET STEP BY STEP, Microsoft Press</p>						
Planned learning activities and teaching methods:	<table border="0"> <tr> <td>Class Instruction:</td> <td style="border: 1px solid black; text-align: center;">42 Hours</td> </tr> <tr> <td>Consultation:</td> <td style="border: 1px solid black; text-align: center;">30 Hours</td> </tr> </table>	Class Instruction:	42 Hours	Consultation:	30 Hours		
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Assessment methods and criteria:	<table border="0"> <tr> <td>Examinations</td> <td style="border: 1px solid black; text-align: center;">75%</td> </tr> <tr> <td>Assignments/ Class Participation</td> <td style="border: 1px solid black; text-align: center;">25%</td> </tr> <tr> <td></td> <td style="border: 1px solid black; text-align: center;">100%</td> </tr> </table>	Examinations	75%	Assignments/ Class Participation	25%		100%
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Assignments/ Class Participation	25%						
	100%						
Language of instruction:	English						
Work placement(s):	No						
Place of Teaching:	Computer Laboratory European University Cyprus, Nicosia						