Liverpool John Moores University

Title:	INTRODUCTION PROGRAMMING & SOFTWARE DEVELOPMENT
Status:	Definitive
Code:	**4001COMPT** (118839)
Version Start Date:	01-08-2011

Owning School/Faculty:	Computing and Mathematical Sciences
Teaching School/Faculty:	Computing and Mathematical Sciences

Team	emplid	Leader
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Academic Level:	FHEQ4	Credit Value:	24.00	Total Delivered Hours:	72.00
Total Learning Hours:	240	Private Study:	168		

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24.000
Practical	24.000
Tutorial	24.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS1	Individual assessment of IDE, application variables, constants and data types.	20.0	1.00
Test	AS2	Individual assessment of decision structures and loops.	20.0	1.00
Artefacts	AS3	Individual assessment of the design documentation and	60.0	

Category	Short Description	Description	Weighting (%)	Exam Duration
		implementation of a visual application.		

Aims

To provide an understanding of the environment, features and tools available in an Integrated Development Environment (IDE) such as Microsoft Visual Studio.
To provide an introduction to computer programming using elementary programming constructs, data structures and IDE tools and features.

Learning Outcomes

After completing the module the student should be able to:

1   Understand basic features and functionality provided by an IDE.
2   Create and use variables and constants and define their data types.
3   Implement decision structures and loops by using conditional expressions.
4   Create and use IDE predefined functions, user defined Sub and Function procedures.
5   Use simple data structures, forms and other visual components to create and enhance a visual application.
6   Create technical, design and user documentation.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

In-class test   1   2

In-class test   3

Design and   4   5   6
implementation

Outline Syllabus

IDE functions and features
User defined variables and constants
Data typing
Input and data validation
Data output formatting and control
Selection and iteration constructs
User defined Sub procedures and functions
Pre defined functions and procedures
Pre defined and user defined events
Simple data structures
Development of single and multi-form applications
Development of visual applications using common components and controls

Application testing
Technical, user and maintenance documentation
Visual application design process and documentation

Learning Activities

Theory oriented lectures on the software development process.
Tutorials and lab exercises to aid in the students self-learning of programming.
Provision of reading material and exercises for students to attempt in their own time.

References

Course Material	Book
Author	Joe Mayo
Publishing Year	2010
Title	Microsoft Visual Studio 2010: A Beginner's Guide
Subtitle	
Edition	
Publisher	McGraw-Hill Osborne
ISBN	0071668950

Course Material	Book
Author	David I. Schneider
Publishing Year	2010
Title	Introduction to Programming Using Visual Basic 2010
Subtitle	
Edition	
Publisher	Prentice Hall
ISBN	013212856X

Notes

This module aims to prepare the student for the world of work, by preparing them for the practical application of software development, both visual and data driven.