

Liverpool John Moores University

Title: VISUAL PROGRAMMING
Status: Definitive
Code: **5045COMP** (115984)
Version Start Date: 01-08-2012

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

Team	Leader
Mike Baskett	Y

Academic Level: FHEQ5 **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	48.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Artefacts	AS1	Design and implementation of a visual application.	50.0	
Artefacts	AS2	Data Driven Application.	50.0	

Aims

To develop skills in software development process focusing upon the implementation phase.

To develop skills in analysis , design and problem solving.

Use an appropriate development environment to implement an application.

Understand and explain the fundamentals of object-oriented programming.

Create object-oriented applications.

Learning Outcomes

After completing the module the student should be able to:

- 1 Create applications following the phase of software development.
- 2 Problem solve, the design and implementation of an application program.
- 3 Testing strategies for programs.
- 4 Debug and test programs.
- 5 Create, deploy and test data driven applications.

Learning Outcomes of Assessments

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

Design and implementation	1	2	3
Data Driven Application	4	5	

Outline Syllabus

Review of the software development process.
Creating and interpreting UML diagrams.
Data types and simple data structures.
Introduction to Object Oriented concepts.
Objects and Classes, Methods, Keywords.
Procedures, Functions and Methods.
Arrays and strings.
Graphics and Multimedia.
Files and Streams.
Relational Database model.
Development using visual programming paradigms.

Learning Activities

Lab-based lectures on the software development process.
Lab-based teaching and support 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	Sommerville, I
Publishing Year	2010
Title	Software Engineering
Subtitle	

Edition	9th
Publisher	Addison Wesley
ISBN	0137053460

Course Material	Book
Author	Hill, M.
Publishing Year	2009
Title	Software Engineering
Subtitle	A Practitioners Approach
Edition	7th
Publisher	Pressman
ISBN	0071267824

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

Notes

This module prepares the student for one of the fundamental activities of the Information Technology industry; Visual Programming and problem solving. The student should be able to transfer the skills learnt in this module to other modules on their degree including their final year project. These skills will also be useful for their Industrial Placement Year and throughout their career.