

Liverpool John Moores University

Title: SOFTWARE DEVELOPMENT
Status: Definitive
Code: **4004ONLINE** (103089)
Version Start Date: 01-08-2012

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

Team	Leader
Christopher Wren	Y

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

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	24.000
Online	24.000
Practical	12.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	AS1	Online test on IDE, application variables, constants and data types	20.0	
Test	AS2	Online test on decision structures and loops	20.0	
Artefacts	AS3	The design documentation and application implementation	60.0	

Aims

To provide an understanding of the environment, features and tools available in an Integrated Development Environment (IDE).

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 a combination of IDE functions and user defined functions
- 5 Use simple data structures to create and enhance an application implementation
- 6 Create technical, design and user documentation

Learning Outcomes of Assessments

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

Online test	1	2
Online test	3	
Application Implementation	4	5 6

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 simple applications using common components and controls

Application testing

Technical, user and maintenance documentation

Learning Activities

Module is delivered by a mix of recorded lectures and practical work to enhance understanding and apply the programming concepts taught.

References

Course Material	Book
Author	Joyce Farrell
Publishing Year	2011
Title	Java Programming
Subtitle	
Edition	6th
Publisher	Cengage
ISBN	9781111529444

Course Material	Book
Author	Y. Daniel Liang
Publishing Year	2010
Title	Introduction to Java Programming
Subtitle	
Edition	8th
Publisher	Pearson
ISBN	9780132472753

Notes

This module aims to introduce the student to the process of software design and implementation. All online activities are scheduled.