



SODV07052 Applications Programming

Transcript Title	Applications Programming
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Full Title	Applications Programming
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Attendance	N/A	Discipline	Software Development
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Coordinator	Alan Ryan	Department	Information Technology
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Co Author(s)	Sharon Byrne
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Official Code	SODV07052	NFQ Level	07	ECTS Credit	10
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Module Description

This module is designed to equip learners with features required to build comprehensive and highly responsive Java applications.

Learning Outcomes

On completion of this module the learner will/should be able to

1. Deploy appropriate theory, practices and tools for the implementation of robust Java solutions.
2. Select and implement measures to enable multithreading in order to make applications more responsive and interactive.
3. Select and implement measures to manage and process large quantities of data.
4. Critically evaluate client/server applications.

Teaching and Learning Strategies

The module is 100% assessed by continuous assessment of laboratory/workshop based assignments and assessments. The module will be delivered through a combination of lectures, lab-lectures and practical classes. The lectures and lab-lectures will drive the content which will then be reinforced in the practical classes. Self-directed learning will be strongly encouraged throughout this module.

Assessment Strategies

Learners must achieve at least 40% in the module.

There is no terminal examination. The module is 100% assessed by continuous assessment of laboratory/workshop based assignments and interim assessments.

Repeat Assessment Procedures

The repeat opportunity is by means of

- A research report/project/essay.

- Practical examination.
- Repeat and attend the module.

Assessment Facilities

Computer laboratory.

Indicative Syllabus

Introduction to Java.

Data types.

Repetition and Selection.

Methods.

Arrays.

OOP (creating objects, constructors, inheritance, polymorphism, interfaces).

Collections.

Lists, Sets, Maps.

Generics.

Lambda expressions.

Developing Real World Applications.

Java IO.

JDBC.

Multi threading.

Network programming.

Blending OOP and functional programming.

Benefits of functional programming.

Data types, functions, modules, objects, namespaces, functional data structures.

Classes and traits.

CourseWork / Assessment Breakdown

CourseWork / Continuous Assessment	100 %
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Coursework Assessment Breakdown

Description	Outcome Assessed	% of Total	Assessment Week
Practical Evaluation Practical	1,2,3,4	100	Ongoing

End Exam Assessment Breakdown

Description	Outcome Assessed	% of Total	Assessment Week
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Full Time Mode Workload

Type	Location	Description	Hours	Frequency	Avg Wkly Wrkld
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Lecture	Lecture Theatre	Lecture	1	Weekly	1.00
Laboratory Practical	Computer Laboratory	Practical Class	2	Weekly	2.00
Lab based Lecture	Computer Laboratory	Lab based Lecture	2	Weekly	2.00

Total Average Weekly Learner Workload 5.00 Hours

Module Resources

Module Book Resources

None

Module Alternate Book Resources

None

Module Other Resources

None

Module URLs

<http://docs.oracle.com/javase/8/docs/api/>

<http://www.lynda.com/>

<http://moodle.lit.ie/>

Additional Information

None

ISBN BookList

Book Details

Joel Murach 2015 *Murach's Beginning Java with NetBeans* Mike Murach & Associates
ISBN-10 1890774847 ISBN-13 9781890774844

Paul Deitel 2014 *Java How To Program (Early Objects) (10th Edition)* Prentice Hall
ISBN-10 0133807800 ISBN-13 9780133807806

Programme Membership

Code	Intake Year	Programme Title
LC_KSOFT_K08MY	201600	Bachelor of Science (Honours) in Software Development
LC_KSOFT_J07MY	201600	Bachelor of Science in Software Development