

IT8108

Mobile Programming



Course Aim The unit utilizes specialised programming concepts for a mobile platform

Short Title none
Faculty Business
Polytechnic Level
Credits 15
Pre-requisites IT7008 (ITB6008)
Co-requisites none
Anti-requisites none

Version 5
Effective From February 24, 2019
Indicative NQF Level 8
Student Contact hrs 60
Self-directed hrs 60
Other directed hrs 30
Total learning hrs 150

| | | |
|--------------------------|---|---|
| Learning Outcomes | <p>On successful completion of this course, students will be able to:</p> <ol style="list-style-type: none"> 1 Design and Implement complex programs (or Apps) for a mobile platform to a given business requirement 2 Follow best practice, industry standards, professional ethics, diagram designing, programming and documentation conventions during the programming process | <p>NQF Sub-strand</p> <p>Practical Application of knowledge Generic, Problem Solving and Analytical Skills</p> |
|--------------------------|---|---|

Topics / Content

- 1 Software development toolkit for a mobile platform
- 2 Rapid application development for mobile devices
- 3 UI/UX for mobile applications

Knowing: Introduction to the SWIFT programming language AND UI/UX best practice for mobile apps.
 Doing: students will develop a mobile app on the iOS platform.
 Being: All employability skills will be embraced but the main emphasis will be on team-work, problem solving and communication. Teamwork: learning how to work collaboratively as a group, according to role and task, to foster a shared learning environment. Problem solving: identifying appropriate solutions to a real world problem. Communication: Presenting technical work to a technical audience (oral form and/or written form)

Learning and Teaching Strategies The course is based on the development of a project following the development life cycle (research, plan, design, implement, test). Interaction with other students and the tutor is essential.

Completion Requirements Students must achieve an aggregate mark of at least 60%.

| Assessment | Assessment Task Description | Weight (%) | Must Pass (Y/N) | Learning Outcomes Assessed | Form of Assessment Task |
|------------|---|------------|-----------------|----------------------------|-------------------------|
| | Project Design Document: Students will describe their design process and justify the decisions they have made (including list of the planned features, diagrams of the application, mockups of the application). | 30 | N | 1,2 | Project |
| | iOS App Implementation: Implementation of their app in xCode using SWIFT following the design from assessemnt 1. The students will learn how to implement a full iOS app dealing with a real life problem working as a team | 35 | N | 1,2 | Practical project |

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|----------------------|--|----|---|-----|-------------------------|
| Assessment Method | Project Defense | 35 | N | 1,2 | Examination (unseen) |
| | Student must defend their implementation (form assessment 2). They should be able to present their final app to a technical audience, provide a critical analysis of design/implementation, and make code modifications and amendments based on a specific script. | | | | |
| | Achievement | | | | |

Forms of Assessment Task

The pages opened by the hyperlinks below introduce various different forms of assessment which are currently available. They do not purport to offer comprehensive accounts of any of them, but try to offer some guidance to select appropriate instruments.

Description: a brief description of the method

Indications: when to use it

Contra-indications: when not to use it

Special precautions: things to be aware of

Notes: anything else which has not been mentioned under another heading

Click on an Assessment Form below which will take you to a website for

| | | |
|--|------------------------------------|---------------------------------------|
| Examination (unseen) | Case-study | Practical project |
| Examination (seen/open book) | Direct observation | Short-answer question |
| Oral questioning after | Essay | Problem sheet |
| Multiple-choice test | Portfolio | Viva voce examination |
| Presentation | Reflection | Self-assessment |
| Performance project | Project | Simulation |

Acknowledgement:

Atherton J S (2013) Learning and Teaching; Forms of Assessment [On-line: UK] retrieved 17 September 2015 from http://www.learningandteaching.info/teaching/assess_form.htm

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Read more: Forms of Assessment http://www.learningandteaching.info/teaching/assess_form.htm#ixzz3lyTVTd8S