DIGITAL HUMANITIES (LM70)

(Università degli Studi)

Teaching MOBILE APPLICATIONS DEVELOPMENT

GenCod A004199
Owner professor Italo EPICOCO

Teaching in italian MOBILE APPLICATIONS DEVELOPMENT
Teaching MOBILE APPLICATIONS DEVELOPMENT
SSD code ING-INF/05

Reference course DIGITAL HUMANITIES

Course type Laurea Magistrale

Credits 6.0

Teaching hours Front activity hours: 42.0

For enrolled in 2020/2021

Taught in 2020/2021

Course year 1

Language ENGLISH

Curriculum COMUNE/GENERICO

Location

Semester First Semester

Exam type Oral

Assessment Final grade

Course timetable
https://easyroom.unisalento.it/Orario

BRIEF COURSE DESCRIPTION

The course covers all of the fundamental aspects related to the development of a mobile application using Apple iOS. Meant for students without previous programming experience, the course starts covering the new programming language Swift, using the integrated development environment Xcode. After introducing the Swift programming language and the use of Xcode to develop a simple application, the students will create a basic prototype application, and, gradually, they will implement the application by adding new features until they implement a real, usable application.

REQUIREMENTS

There are no prerequisites; indeed, the course is meant for students without previous programming experience.

COURSE AIMS

The course aims to provide students with the skills required to develop a mobile application using Apple iOS. Therefore, at the end of this course the students will know:

- The programming language Swift;
- The integrated development environment Xcode;
- The fundamental iOS frameworks and their related APIs.

Moreover, at the end of this course the students will acquire the following expertise and technical capabilities:

- Develop, starting from an initial project idea, a mobile application using Apple iOS;
- Problem solving;
- Reading technical documentation;
- Team working.

TEACHING METHODOLOGY

– Classroom lectures;
– Laboratory exercises;
– Team work.

The course is based on classroom lectures and laboratory exercises (for a total of 42 hours), in which the students are directly involved. Moreover, there will be some team work assigned, in order for the students to solve exercises and small homework projects. Attending the lectures is strongly advised, since the course is mainly based on the hands on approach.

The lectures can be also given through the platform Microsft Teams at the following link: https://teams.microsoft.com/l/team/19%3ab79bb99079484236b17f116d3fe160c6%40thread.tac v2/conversations?groupId=1cf8388e-bc1c-4c54-9750-c462ba328895&tenantId=8d49eb30-429e-4944-8349-dee009bdd7da

ASSESSMENT TYPE

Students will be evaluated through an oral exam. The students will be required to discuss a project assigned to them. The exam will evaluate how much the students have reached the following didactic aims:

- Knowledge of the Swift programming language;
- Ability to design and implement a mobile application using Apple iOS.

Evaluation will take into account the assigned project, the exposition, the formal correctness and the ability to argue and support the student's theses.

The exam can be done also thorugh the Microsoft teams platform. Details on the connections can be found at the following link: https://drive.google.com/file/d/11SVWGyWOnEoNwoPXwg5gsDmQuhj68gVy/view

ASSESSMENT SESSIONS

The exam sessions are available through this link: exam sessions

FULL SYLLABUS

Swift Playgrounds
Build First App
Introduction to Auto Layout
Designing UI Using StackViews
Introduction to Prototyping
Creating a SimpleTable-based App
Using UI AlertController
Introduction to NavigationController and Segue
Introductionto Object-Oriented Programming
Self Sizing Cells and Dynamic Type
Working with Maps
Introduction to StaticTableViews, UIImagePickerController and NSLayoutConstraint
Working with CoreData

REFERENCE TEXT BOOKS

Textbook:
Simon Ng, Beginning iOS 10 Programming with Swift. AppCoda
http://www.appcoda.com/swift/

Additional, useful references:
The Swift Programming Language. Apple Inc.
Simon Ng, Intermediate Swift and iOS 10 Programming. AppCoda
http://www.appcoda.com/intermediate-swift-programming-book/