esade

TEACHING GUIDE - 2025-2026

Mobile App Programming

UGRA_004800

Departments	Data, Analytics, Technology and Artificial Intelligence (DATA), Dept. of Operations, Innovation & Data Sciences
Teaching Languages	English
ECTS	4
Teacher responsible	Francesc Roig i Feliu - francesc.roig2@esade.edu

Course Goals

This course aims to achieve the following objectives:

- Enable students to explore the world of mobile applications from a developer's perspective.
- Equip students with the necessary skills to develop simple applications for both iOS and Android platforms.

Prerequisits

No prerequisites.

Teaching methodology

This course adopts a practical, example-based approach due to its technical nature and limited hours. It is designed to train students as users of programming rather than expert programmers, minimizing theoretical content and focusing on practical application.

Key methodological aspects:

- Classes are centered around hands-on examples and exercises.
- Students complete in-class activities to reinforce learning.
- After acquiring basic skills, students form groups to develop an app project.
- The project phase involves self-guided learning and online research to solve real-world problems.
- Final projects are presented in the last session and evaluated by both the instructor and peers, considering technical execution, originality, business perspective, and presentation.

Tutoring:

Group tutorials can be arranged in person or online if needed.

Description

Course contribution to program

This course aims to primarily introduce students to the world of mobile apps from the developer's perspective. Classes are fundamentally hands-on, enabling students to develop simple mobile apps based primarily on the Apple iOS (iPhone, iPad) and Google Android platforms.

For students without any programming experience this is an excellent opportunity to explore a world which is increasingly important for our society. Just as mastering English has become key for business in the last few decades, programming, the universal language of technology, will become fundamental in the coming years.

As mentioned, the course is practical in focus. This implies that, after an introduction to the economic and technological aspects of the key platforms when developing a new app project, the course will focus on the theoretical-practical elements related to app development.

Students will learn to use Apple's Xcode(*) and Google's Android Studio (**) development software as well as the device simulators they incorporate. If students wish, they can also run their application projects on their own devices.

In terms of content, the course mainly addresses two fundamental aspects of app development for mobile devices: (1) the graphic interface and (2) the code programming. In addition, the different class sessions will explore also other related topics such as multimedia content in apps, visualization of web content and maps.

(*) Xcode is only available for Mac computers. Consequently, those interested in developing apps specifically for iOS (iPhone, iPad and iPod touch) should ideally have their own Mac. If they don't, they will be able to work with classmates that have one to address the topics related specifically to iOS. Having a Mac is not a prerequisite to enroll in this course but, if the students are particularly interested in the iOS app development part, it is highly recommended.

(**) Android Studio is available for both Mac and PC.

Assessment

Tool	Assessment tool	Category	Weight %

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Group project		Retake and ordinary round	50.00%
Individual or team exercises		Retake and ordinary round	40.00%
Other	Participation	Retake and ordinary round	10.00%

PROGRAMS

B13-Exchange Program Bachelor of Business Administration (BBA) (Undergraduates: Business)
- B13 Year 1 (Optative)

B13S-Exchange Program Bachelor of Business Administration (BBA) (Undergraduates: Business)
- B13S Year 1 (Optative)

BBA20-Bachelor of Business Administration (BBA) (Undergraduates: Business)
- BBA20 Year 1 (Optative)
- BBA20 Year 4 (Optative)
- BBA20 Year 2 (Optative)
- BBA20 Year 3 (Optative)

BBA23-Bachelor of Business Administration (BBA) (Undergraduates: Business)
- BBA23 Year 2 (Optative)
- BBA23 Year 3 (Optative)
- BBA23 Year 1 (Optative)
- BBA23 Year 4 (Optative)

DBAI21-Double Degree in Business Administration and Artificial Intelligence for Business (Undergraduates: Business)
- DBAI21 Year 4 (Optative)
- DBAI21 Year 2 (Optative)
- DBAI21 Year 3 (Optative)
- DBAI21 Year 1 (Optative)

DBAI23-Double Degree in Business Administration and Artificial Intelligence for Business (Undergraduates: Business)
- DBAI23 Year 3 (Optative)
- DBAI23 Year 2 (Optative)
- DBAI23 Year 4 (Optative)
- DBAI23 Year 1 (Optative)

GEL19-Bachelor of Global Governance, Economics and Legal Order (Undergraduates: Law)
- GEL19 Year 4 (Optative)
- GEL19 Year 2 (Optative)
- GEL19 Year 3 (Optative)

GEL23-Bachelor of Global Governance, Economics and Legal Order (Undergraduates: Law)
- GEL23 Year 4 (Optative)
- GEL23 Year 2 (Optative)
- GEL23 Year 3 (Optative)