Mobile App Development

2021/2022

Code: 106399
ECTS Credits: 6

Degree	Type	Year	Semester
2501232 Business and Information Technology	OT	4	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

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Use of Languages

Principal working language: catalan (cat)

Some groups entirely in English: No

Some groups entirely in Catalan: Yes

Some groups entirely in Spanish: No

Prerequisites

For a good academic progress, knowledge of the fundamentals of programming languages, databases, and design of web-based systems is recommended.

Objectives and Contextualisation

In this subject we will learn how to program applications for mobile devices. We will use HTML + CSS + JavaScript with a multiplatform host like PhoneGap, which will allow us to compile the application and generate native code for the different SmartPhones operating systems.

Competences

- Demonstrating a concern for quality in the objectives and development of the work.
- Demonstrating the ability to plan in accordance to the objectives and available resources.
- Finding algorithmic solutions and using the appropriate programming tools in order to implement them in a organization environment.
- Proposing, analysing, validating and maintaining IT solutions in the context of a business organisation.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.

Learning Outcomes

1. Demonstrating a concern for quality in the objectives and development of the work.
2. Demonstrating the ability to plan in accordance to the objectives and available resources.
3. Designing new algorithmic solutions based on the idea of recursiveness or specific design techniques of algorithms.
4. Developing applications distributed on the Internet and web environments.
5. Enumerating the main models and tools used in applications distributed on the Internet.
6. Using the analysis techniques of algorithms and programmes.
7. Using the more effective and up-to-date technical means in oral and written communication.

Content

The contents to be covered are the following:

1: HTML structures to Angular components.
2: Additional pages, routes, and constants
3: Services, Constants and HTTP
4: Using Firebase for our automation
5: Firebase Automation
6: Product display and search
7: WebApp to GitHub Pages

Methodology

The teaching methodology of the subject focuses on autonomous learning. To achieve this goal, the subject will be structured in practical exercises and programming problems in the computer room.

This approach requires active involvement of students. Teamwork and collaborative exchange will be encouraged. However, the final learning process must be individual, highlighted by the autonomous activity of each student, who will have to complement and enrich the work initiated in the course's directed sessions. The supervised activity, around regular tutorials and sporadic questions carried out during the course, is also an essential tool in the achievement of the competences provided by the subject.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classroom practices	10	0.4	4, 3, 5, 6
Lab classes	15	0.6	2, 1, 4, 6
Theoretical lectures	20	0.8	4, 3, 5, 6
Type: Supervised			
Tutorial	15	0.6	2, 1
Type: Autonomous			
Independent study	20	0.8	2, 4, 6
Preparation of the presentations of the course projects	20	0.8	2, 1, 7
Work on course projects	50	2	2, 4, 3, 5, 6

Assessment

The final qualification of the subject will be obtained based on the valuations of the different evidences, taking into account the specific wigth of each one:

20% (project1) + 20% (project2) + 20% (project3) + 20% (project4) + 20% (FinalProject)

A student who performs at least one of the components of the continuous evaluation can no longer be considered as NOT Evaluable.

Calendar of evaluation activities

The dates of the evaluation activities (midterm exams, exercises, assignments ...) will be announced well in advance during the semester.

The date of the final exam is scheduled in the assessment calendar of the Faculty.

"The dates of evaluation activities cannot be modified, unless there is an exceptional and duly justified reason why an evaluation activity cannot be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity." Section 1 of Article 115. Calendar of evaluation activities (Academic Regulations UAB). Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an Application for exams' reschedule at

https://eformularis.uab.cat/group/deganat_feie/application-for-exams-reschedule Grade revision process

After all grading activities have ended students will be informed of the date and way in which the course grades will be published. Students will be also be informed of the procedure, place, date and time of grade revision following University regulations.

Retake Process

"To be eligible to participate in the retake process, it is required for students to have been previously been evaluated for at least two thirds of the total evaluation activities of the subject." Section 3 of Article 112 ter. The recovery (UAB Academic Regulations). Additionally, it is required that the student to have achieved an average grade of the subject between 3.5 and 4.9.

The date of the retake exam is posted in the calendar of evaluation activities of the Faculty. Students taking this exam and passing will get a grade of 5 for the subject. For the students that do not pass the retake, the grade will remain unchanged, and hence, will fail the course.

Irregularities in evaluation activities

Despite other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"whenever a student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of occurrence of various irregularities in the evaluation of the same subject, the final grade of this subject will be 0".* **Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).**

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Develop computer applications	100	0	0	2, 1, 4, 3, 5, 7, 6

Bibliography

JavaScript: the definitive guide, Flanagan, David Sebastopol : O'Reilly, cop. 2011 6th ed.

PhoneGap, Thomas Myer, Ed. Anaya multimèdia, 2012

Software

The following programs will be used in the practices of the course: Nodejs, angular, ionic and bootstrap.