

## 804127 - AWUGIII - Latest Generation Web Applications III

Coordinating unit: 804 - CITM - Image Processing and Multimedia Technology Centre  
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre  
Academic year: 2019  
Degree: BACHELOR'S DEGREE IN MULTIMEDIA STUDIES (Syllabus 2009). (Teaching unit Compulsory)  
ECTS credits: 6 Teaching languages: Catalan, Spanish

### Teaching staff

Coordinator: Fernandez Duran, Pablo  
Others: Fábregas Ruesgas, Juan José  
Eguía Gómez, José Luis

### Degree competences to which the subject contributes

Specific:

1. (ENG) Analitzar l'evolució de les aplicacions web, l'estat de l'art i els dispositius associats en aplicacions web d'última generació. Relacionada amb CET19.
2. (ENG) Aplicar nous coneixements teòrics i pràctics, relacionats amb les tecnologies utilitzades en el desenvolupament d'aplicacions web d'última generació.
3. (ENG) Aplicar els coneixements teòrics i pràctics relacionats amb el disseny centrat en l'usuari, la facilitat d'ús i l'accessibilitat en el desenvolupament d'aplicacions web d'última generació. Relacionada amb CET21.

Transversal:

4. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.
5. ENTREPRENEURSHIP AND INNOVATION: Knowing about and understanding how businesses are run and the sciences that govern their activity. Having the ability to understand labor laws and how planning, industrial and marketing strategies, quality and profits relate to each other.
6. SUSTAINABILITY AND SOCIAL COMMITMENT. Being aware of and understanding the complexity of social and economic phenomena that characterize the welfare society. Having the ability to relate welfare to globalization and sustainability. Being able to make a balanced use of techniques, technology, the economy and sustainability.
7. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.
8. SELF-DIRECTED LEARNING. Detecting gaps in one's knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one's knowledge.

### Teaching methodology

Lectures by the professors.  
Development of a project in groups with several deliverables.  
Testing sessions with the project prototype.  
Tutoring sessions about the project.  
Presentation of the project to your peers.

### Learning objectives of the subject

1. Plan and develop an application for mobile phones (app) using web APIs.
2. Learn the basics of app design.
3. Conceptualize apps and produce a conceptualization document.

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4. Produce a prototype of an app and plan and carry out a testing session.
5. Develop mobile applications using React Native.

### Study load

Total learning time: 150h	Hours large group:	0h	0.00%
	Hours medium group:	60h	40.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

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### Content

<p>Web APIs</p>	<p>Learning time: 6h Theory classes: 4h Self study : 2h</p>
<p>Description: What is a web API? Authentication: using tokens. Connection from Js.</p> <p>Related activities: Deliverable: choose one or more web APIs for the project and write a program in Js that makes use of them.</p>	
<p>Graphic Design of Mobile Applications</p>	<p>Learning time: 12h Theory classes: 4h Self study : 8h</p>
<p>Description: Fundamentals of graphic design. Material Design.</p>	
<p>User Experience Design (UXD)</p>	<p>Learning time: 44h Theory classes: 16h Guided activities: 12h Self study : 16h</p>
<p>Description: Conceptualization of an application. Prototyping with Axure. User Testing: planning, testing and reporting.</p> <p>Related activities: Deliverable 1: Conceptualization document and Prototype.</p>	



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Mobile Application Development with React Native	Learning time: 88h Theory classes: 28h Guided activities: 40h Self study : 20h
Description: Introduction Layouts Interaction Routes Lists Firestore Camera State Management	

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### Planning of activities

Deliverable 0: Conceptualization	Hours: 4h Guided activities: 4h
Description: Conceptualization document	
Deliverable 1: Prototype and User Test Report	Hours: 8h Guided activities: 8h
Description: Axure Prototype Report about user testing of the prototype	
Deliverable 3: Partial Implementation	Hours: 16h Guided activities: 16h
Description: Partial implementation of the application.	
Deliverable 3: Full Implementation	Hours: 20h Theory classes: 20h
Description: Full implementation of the project.	
Partial Exam	Hours: 2h Theory classes: 2h
Description: Written exam covering the whole course	
Final Presentation	Hours: 2h Theory classes: 2h
Description: Presentation of your final project to your peers.	

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### Qualification system

The grade of the continuous assessment is calculated as follows:

- 10%: Disposition and participation.
- 10%: Deliverable 0: Conceptualization.
- 10%: Deliverable 1: Prototype and Test Report.
- 20%: Deliverable 2: Partial Implementation of the App.
- 20%: Partial Exam.
- 25%: Deliverable 3: Full Implementation of the App.
- 5%: Presentation.

### Regulations for carrying out activities

Re-evaluation includes only the Partial Exam (20%).

### Bibliography

Basic:

Eisenman, Bonnie. Learning React Native. 2. O'Reilly, 2018. ISBN 978-1-491-98914-2.

Others resources:

<https://.info>