

## 820089 - PDM - Mobile Devices Programming

Coordinating unit:	295 - EEBE - Barcelona East School of Engineering
Teaching unit:	723 - CS - Department of Computer Science
Academic year:	2018
Degree:	BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN MATERIALS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
ECTS credits:	6
Teaching languages:	Catalan, Spanish

### Teaching staff

Coordinator:	Samir Kanaan Escudero Bakx, Gerard
Others:	Samir Kanaan i Gerard Escudero

### Prior skills

This course does not require any previous skills.

### Degree competences to which the subject contributes

Specific:

1. Understand the basics behind the use and programming of PCs, operating systems, databases and software with applications in engineering.
3. Apply their knowledge to industrial informatics and communications.

Transversal:

2. ENTREPRENEURSHIP AND INNOVATION - Level 3. Using knowledge and strategic skills to set up and manage projects. Applying systemic solutions to complex problems. Devising and managing innovation in organizations.

### Teaching methodology

The course uses a group methodology based on projects: a guided work (laboratory) in a 50% and an open work (project) in the remaining 50%.

### Learning objectives of the subject

- Let the student know about the concepts and basic usages of mobile device programming (phones and tablets) with Android.
- Provide programming techniques for mobile devices.

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### Study load

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

### Content

(ENG) Instalación e introducción al entorno de desarrollo (SDK) de Android.

Degree competences to which the content contributes:

(ENG) Estructuras básicas de programación en el entorno Android.

Degree competences to which the content contributes:

(ENG) Tratamiento de gráficos.

Degree competences to which the content contributes:

(ENG) Acceso a los accesorios del dispositivo móvil.

Degree competences to which the content contributes:

(ENG) Programación con bases de datos.

Degree competences to which the content contributes:

### Qualification system

The assignment will be formed by the evaluation on the professors of the different practical works (50%) and a final project (another 50%).

### Regulations for carrying out activities

Laboratory works follow a guide. The final project can be chosen by the student with the assessment and approval of the professors.



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### Bibliography

#### Basic:

Gargenta, Marko. Learning Android. Sebastopol: O'Reilly, 2011. ISBN 9781449390501.

Burnette, E. Hello, Android : introducing Google's mobile development platform. 3rd ed. Raleigh, N.C.: Pragmatic Bookshelf, 2010. ISBN 9781934356562.