

300228 - AVI-MN2 - Avionics

Coordinating unit:	300 - EETAC - Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit:	710 - EEL - Department of Electronic Engineering 701 - AC - Department of Computer Architecture 748 - FIS - Department of Physics
Academic year:	2018
Degree:	BACHELOR'S DEGREE IN AIR NAVIGATION ENGINEERING (Syllabus 2010). (Teaching unit Compulsory) BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING (Syllabus 2015). (Teaching unit Optional) BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING/BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2015). (Teaching unit Optional) BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING/BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2015). (Teaching unit Optional)
ECTS credits:	7,5
Teaching languages:	Catalan, Spanish

Teaching staff

Coordinator:	Definit a la infoweb de l'assignatura.
Others:	Definit a la infoweb de l'assignatura.

Degree competences to which the subject contributes

Specific:

1. CE 17 AERO. Conocimiento adecuado y aplicado a la ingeniería de: Los elementos fundamentales de los diversos tipos de aeronaves ; los elementos funcionales del sistema de navegación aérea y las instalaciones eléctricas y electrónicas asociadas; los fundamentos del diseño y construcción de aeropuertos y sus diversos elementos. (CIN/308/2009, BOE 18.2.2009)

Generical:

4. PROJECT MANAGEMENT - Level 3: Define the objectives of an extensive project and open, multidisciplinary. Schedule tasks and resources, track and integration of the parties. To evaluate the intermediate and final results, restating the objectives if necessary.
7. EFFICIENT USE OF EQUIPMENT AND INSTRUMENTS - Level 2: Use the correct instruments, equipment and laboratory software for specific or specialized knowledge of their benefits. A critical analysis of the experiments and results. Correctly interpret manuals and catalogs. Working independently, individually or in groups, in the laboratory.

Transversal:

2. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
3. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
5. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
6. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.
8. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.



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Learning objectives of the subject

Study load

Total learning time: 187h 30m	Hours large group:	39h	20.80%
	Hours medium group:	13h	6.93%
	Hours small group:	26h	13.87%
	Guided activities:	4h 30m	2.40%
	Self study:	105h	56.00%

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Content

(ENG) Introducció als sistemes aviónics	<p>Learning time: 3h</p> <p>Theory classes: 1h 30m</p> <p>Self study : 1h 30m</p>
(ENG) Instrumentació aviónica de cabina	<p>Learning time: 38h</p> <p>Theory classes: 12h</p> <p>Guided activities: 2h</p> <p>Self study : 24h</p>
(ENG) Disseny aviónic. Consideracions industrials i seguretat	<p>Learning time: 41h</p> <p>Theory classes: 12h</p> <p>Laboratory classes: 4h</p> <p>Self study : 25h</p>
(ENG) Disseny hardware. Sistemes sensors i d'actuació. Busos de comunicació	<p>Learning time: 40h</p> <p>Theory classes: 3h</p> <p>Practical classes: 13h</p> <p>Self study : 24h</p>
(ENG) Disseny software. Arquitectura i sistemes operatius	<p>Learning time: 28h</p> <p>Theory classes: 10h 30m</p> <p>Self study : 17h 30m</p>
(ENG) Projectes	<p>Learning time: 37h 30m</p> <p>Laboratory classes: 22h</p> <p>Guided activities: 2h 30m</p> <p>Self study : 13h</p>

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Planning of activities

(ENG) CONTROLS INDIVIDUALS DE CONEIXEMENTS BÀSICS	Hours: 4h Theory classes: 4h
(ENG) PROBLEMES	Hours: 37h Practical classes: 13h Self study: 24h
(ENG) PROJECTE D'APLICACIÓ	Hours: 52h Laboratory classes: 26h Self study: 26h
(ENG) VISITA CABINA AVIÒNICA ILLA DE BANYOLS	Hours: 4h 30m Guided activities: 4h 30m
(ENG) TEORIA	Hours: 90h Theory classes: 35h Self study: 55h

Bibliography