

300207 - I1 - Informatics I

Coordinating unit:	300 - EETAC - Castelldefels School of Telecommunications and Aerospace Engineering
Teaching unit:	701 - AC - Department of Computer Architecture
Academic year:	2018
Degree:	BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING (Syllabus 2015). (Teaching unit Compulsory) BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERINGS/BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING - NETWORK ENGINEERING (AGRUPACIÓ DE SIMULTANEÏTAT) (Syllabus 2015). (Teaching unit Compulsory) BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING/BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2015). (Teaching unit Compulsory) BACHELOR'S DEGREE IN AEROSPACE SYSTEMS ENGINEERING/BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2015). (Teaching unit Compulsory)
ECTS credits:	6
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 3 AERO. Conocimientos básicos sobre el uso y programación de los ordenadores, sistemas operativos, bases de datos y programas informáticos con aplicación en ingeniería. (CIN/308/2009, BOE 18.2.2009)

General:

4. PROJECT MANAGEMENT - Level 1: To know project management tools carrying out the different phases of the project established by the professor
8. EFFICIENT USE OF EQUIPMENT AND INSTRUMENTS - Level 1: Using instruments, equipment and software from the laboratories of general or basic use. Realising experiments and proposed practices and analyzing obtained results.

Transversal:

2. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.
3. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.
5. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 1. Analyzing the world's situation critically and systemically, while taking an interdisciplinary approach to sustainability and adhering to the principles of sustainable human development. Recognizing the social and environmental implications of a particular professional activity.
6. 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.
7. 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.
9. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.

Teaching methodology

X

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Learning objectives of the subject

X

Study load

Total learning time: 150h	Hours large group:	0h	0.00%
	Hours medium group:	0h	0.00%
	Hours small group:	43h	28.67%
	Guided activities:	23h	15.33%
	Self study:	84h	56.00%

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Content

<p>(ENG) Títol contingut 1: Sistemes operatius</p>	<p>Learning time: 10h Laboratory classes: 3h Guided activities: 1h 30m Self study : 5h 30m</p>
<p>Description: (ENG) 1.1 Funcions i serveis dels sistemes operatius.</p> <p>Related activities: (ENG) Activitat 1: :Iniciació a la programació.</p>	
<p>(ENG) Títol contingut 2: Elements bàsics de la programació</p>	<p>Learning time: 40h Laboratory classes: 12h Guided activities: 6h Self study : 22h</p>
<p>Description: (ENG) 2.1 Tipus de dades bàsics. 2.2 Sentències condicionals i iteratives. 2.3 Vectors i matrius. 2.4 Esquemes algorísmics bàsics.</p> <p>Related activities: (ENG) Activitat 1:Iniciació a la programació.</p>	
<p>(ENG) Títol contingut 3: Elements avançats de la programació</p>	<p>Learning time: 55h Laboratory classes: 15h Guided activities: 7h 30m Self study : 32h 30m</p>
<p>Description: (ENG) 3.1 Estructures. 3.2 Fitxers. 3.3 Funcions. 3.4 Objectes. 3.5 Gràfics.</p> <p>Related activities: (ENG) Activitat 2: Projecte.</p>	

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(ENG) Títol contingut 4: L'entorn de programació	Learning time: 45h Laboratory classes: 13h Guided activities: 8h Self study : 24h
<p>Description:</p> <p>(ENG) 4.1 Creació de projectes. 4.2 Compilació i muntatge: solució d'errors. 4.3 Solució d'errors d'execució: el depurador.</p> <p>Related activities:</p> <p>(ENG) Activitat 1: Iniciació a la programació. Activitat 2: Projecte.</p>	

Planning of activities

(ENG) TÍTOL ACTIVITAT 1: INICIACIÓ A LA PROGRAMACIÓ	Hours: 75h Laboratory classes: 21h 30m Guided activities: 11h 30m Self study: 42h
(ENG) TÍTOL ACTIVITAT 2: PROJECTE (CONJUNT AMB L'ASSIGNATURA TECNOLOGIA AEROSPACIAL I TRANSPORT AERI)	Hours: 75h Laboratory classes: 21h 30m Guided activities: 11h 30m Self study: 42h

Qualification system

X

Regulations for carrying out activities

X



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Bibliography

Basic:

Gilat, Amos. MATLAB : an introduction with applications. 4th ed. Hoboken, NJ: John Wiley, 2011. ISBN 9780470873731.

Complementary:

Eckstein, Robert. Java Swing. 2nd ed. Sebastopol [etc.]: O'Reilly, 2003. ISBN 0596004087.

Goodrich, Michael T.; Tamassia, Roberto. Data structures and algorithms in Java. 5th ed. New York: Wiley, 2011. ISBN 9780470398807.

Others resources: