Last update: 07-10-2019

330525 - EAOCAE - Computer-Aided Engineering (Cae)

Coordinating unit: 330 - EPSEM - Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering
Academic year: 2019
Degree: BACHELOR'S DEGREE IN AUTOMOTIVE ENGINEERING (Syllabus 2017). (Teaching unit Compulsory)
ECTS credits: 3 Teaching languages: Catalan, Spanish, English

Teaching staff

Coordinator: Riera Colom, Maria Dolores

Others: Soler Conde, Marc Antoni

Degree competences to which the subject contributes

Specific:

1. (ENG) Introduir la utilització de programari (sofware), comercial o de lliure distribució, en les distintes activitats de l'Enginyeria relacionades amb el disseny, desenvolupament, fabricació i comportament en servei de productes.
2. (ENG) Utilitzar diferents programes per tal d'avaluar el comportament en servei i en el procés de disseny de components, sobre tot, d'automoció.

Transversal:

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.
4. 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.
5. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.

Learning objectives of the subject

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Study load

Total learning time: 75h	Hours large group:	0h	0.00%
	Hours medium group:	0h	0.00%
	Hours small group:	30h	40.00%
	Guided activities:	0h	0.00%
	Self study:	45h	60.00%

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Content

title english	Learning time: 2h Laboratory classes: 2h
Description: content english	

title english	Learning time: 8h Laboratory classes: 6h Self study : 2h
Description: content english	

title english	Learning time: 3h Theory classes: 1h Laboratory classes: 2h
Description: content english	

title english	Learning time: 3h Laboratory classes: 2h Self study : 1h
Description: content english	

title english	Learning time: 6h Laboratory classes: 4h Self study : 2h
Description: content english	

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title english	Learning time: 5h Laboratory classes: 4h Self study : 1h
Description: content english	

title english	Learning time: 5h Laboratory classes: 4h Self study : 1h
Description: content english	

title english	Learning time: 6h Laboratory classes: 4h Self study : 2h
Description: content english	

Planning of activities

name english	Hours: 10h Self study: 10h

name english	Hours: 10h Self study: 10h

name english	Hours: 5h Self study: 5h

name english	Hours: 12h Laboratory classes: 2h Self study: 10h

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Bibliography

Basic:

Ashby, M. F; Jones, David R. H. Materiales para ingeniería. Barcelona [etc.]: Reverté, 2008-2009. ISBN 9788429172553.

Ashby, M. F. Materials selection in mechanical design. 4th ed. Burlington, MA: Butterworth-Heinemann, 2011. ISBN 9781856176637.

Complementary:

Alcalá, J; Llanes, L. M; Mateo García, Antonio Manuel; Salán, M. N; Anglada, Marc. Fractura de materiales [on line]. Barcelona: Edicions UPC, 2002 [Consultation: 25/10/2019]. Available on: <http://hdl.handle.net/2099.3/36175>. ISBN 84-8301-592-7.

Dieter, George Ellwood; Bacon, David. Mechanical metallurgy. SI metric ed. / adapted by David Bacon. London [etc.]: McGraw-Hill Book Company, cop. 1988. ISBN 007084187X.

Hosford, William F; Caddell, Robert M. Metal forming : mechanics and metallurgy. 4th ed. Cambridge: Cambridge University, 2011. ISBN 9781107004528.

Others resources: