

330523 - EME2 - Mechanical Engineering 2

Coordinating unit: 330 - EPSEM - Manresa School of Engineering
 Teaching unit: 712 - EM - Department of Mechanical Engineering
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN AUTOMOTIVE ENGINEERING (Syllabus 2017). (Teaching unit Compulsory)
 ECTS credits: 4,5 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: Alcelay Larrión, José Ignacio
 Others: Peña Pitarch, Esteban
 Al Omar Mesnaoui, Anas

Degree competences to which the subject contributes

Specific:

1. (ENG) Coneixement dels principis de teoria de màquines i mecanismes.
2. (ENG) Coneixements i capacitats per el càlcul, disseny i assaig de màquines.

Transversal:

3. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
4. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.

Learning objectives of the subject

Study load

Total learning time: 112h 30m	Hours large group:	15h	13.33%
	Hours medium group:	0h	0.00%
	Hours small group:	30h	26.67%
	Guided activities:	0h	0.00%
	Self study:	67h 30m	60.00%

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Content

title english	Learning time: 4h 30m Theory classes: 1h 30m Self study : 3h
Description: content english	
title english	Learning time: 4h 30m Theory classes: 1h 30m Self study : 3h
Description: content english	
title english	Learning time: 9h Theory classes: 3h Self study : 6h
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Planning of activities

name english	Hours: 28h Laboratory classes: 13h Self study: 15h
name english	Hours: 18h 30m Laboratory classes: 8h Self study: 10h 30m
name english	Hours: 19h Laboratory classes: 9h Self study: 10h
name english	Hours: 11h Theory classes: 3h Self study: 8h
name english	Hours: 3h Theory classes: 3h

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Bibliography

Basic:

Cardona i Foix, Salvador; Clos Costa, Daniel. Teoria de màquines [on line]. 2a ed. Barcelona: Edicions UPC, 2008 [Consultation: 24/07/2018]. Available on: <<http://hdl.handle.net/2099.3/36644>>. ISBN 9788498803792.

Beer, Ferdinand P., i altres. Mecánica vectorial para ingenieros. 11ª ed. México: McGraw-Hill Education, 2017. ISBN 9781456255268.

Norton, Robert L. Machine design: an integrated approach. 4th ed. Boston: Pearson, 2011. ISBN 9780131384385.

Complementary:

Khamashta Shahin, Munir; Álvarez Martínez, Lorenzo; Capdevila Pagès, Ramón. Problemas de cinemática y dinámica de máquinas. Barcelona: Edicions de la Universitat Politècnica de Catalunya, 1986. ISBN 8476530048.

Khamashta Shahin, Munir; Álvarez Martínez, Lorenzo; Capdevila Pagés, Ramón. Problemas de cinemática y dinámica de máquinas. 2ª ed. corregida. Terrassa: Departament d'Enginyeria Mecànica, 1993-1994. ISBN 847653003X.

Bertran Bertran, Juan M. Cinemática y dinámica de máquinas. Manresa: Universitat Politècnica de de Catalunya, 1983.

Suñer Martínez, Josep-Lluís, i altres. Problemas resueltos de teoría de máquinas y mecanismos. Valencia: Universidad Politècnica de Valencia, Departamento de Ingeniería Mecánica y de Materiales, 2001. ISBN 8497050142.

García Prada, Juan Carlos, i altres. Problemas resueltos de teoría de máquinas y mecanismos. 2ª ed. act. Madrid: Paraninfo, 2014. ISBN 9788428334426.

Hernández, Alfonso. Cinemática de mecanismos: análisis y diseño. Madrid: Síntesis, 2004. ISBN 8497562240.