

330526 - SAM - Mechanical Auxiliary Systems

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

Teaching staff

Coordinator: Peña Pitarch, Esteban

Others: Lujan Puigdellivol, Octavi
 Tirado Galbany, Manel
 Al Omar Mesnaoui, Anas
 Alcelay Larrión, José Ignacio

Degree competences to which the subject contributes

Specific:

- (ENG) Coneixements i capacitats per el càlcul, disseny i assaig de sistemes auxiliars mecànics.

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: 16h Theory classes: 2h Laboratory classes: 4h Self study : 10h
Description: content english	
title english	Learning time: 32h Theory classes: 4h Laboratory classes: 8h Self study : 20h
Description: content english	
title english	Learning time: 21h Theory classes: 2h Laboratory classes: 4h Self study : 15h
Description: content english	
title english	Learning time: 21h Theory classes: 2h Laboratory classes: 4h Self study : 15h
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title english	Learning time: 16h Theory classes: 2h Laboratory classes: 4h Self study : 10h
Description: content english	

title english	Learning time: 19h Theory classes: 3h Laboratory classes: 6h Self study : 10h
Description: content english	

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Planning of activities

name english	Hours: 16h Laboratory classes: 6h Self study: 10h
name english	Hours: 32h Laboratory classes: 12h Self study: 20h
name english	Hours: 21h Laboratory classes: 6h Self study: 15h
name english	Hours: 21h Laboratory classes: 6h Self study: 15h
name english	Hours: 16h Laboratory classes: 6h Self study: 10h
name english	Hours: 19h Laboratory classes: 9h Self study: 10h
name english	Hours: 12h Theory classes: 2h Self study: 10h
name english	Hours: 12h Theory classes: 2h Self study: 10h

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name english	Hours: 18h Theory classes: 3h Self study: 15h
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Bibliography

Basic:

Mott, Robert L. Machine elements in mechanical design. 3rd ed. Upper Saddle River: Prentice Hall, cop. 1999. ISBN 0138414467.

Norton, Robert L; Rios Sánchez, Miguel A. Diseño de maquinaria : síntesis y análisis de máquinas y mecanismos. 4a ed. México [etc.]: McGraw-Hill, cop. 2008. ISBN 9789701068847.

Gans, Roger F. Mechanical systems : a unified approach to vibrations and controls [on line]. Cham: Springer International Publishing, 2015 [Consultation: 15/10/2019]. Available on: <<http://dx.doi.org/10.1007/978-3-319-08371-1>>. ISBN 9783319083711.

Budynas, Richard G; Nisbett, J. Keith; Shigley, Joseph Edward. Diseño en ingeniería mecánica de Shigley. 9ª ed. México: McGraw-Hill, 2012. ISBN 9786071507716.

Complementary:

Spotts, M. F; Shoup, T. E; León Cárdenas, Javier; Cera Alonso, José María de la. Elementos de máquinas. México [etc.]: Pearson Educación, cop. 1999. ISBN 9701702522.

Hamrock, Bernard J; Jacobson, Bo; Schmid, Steven R. Elementos de máquinas. México [etc.]: McGraw-Hill, cop. 2000. ISBN 970102799X.