

330515 - E - Electrical Engineering

Coordinating unit: 330 - EPSEM - Manresa School of Engineering
Teaching unit: 709 - EE - Department of Electrical Engineering
Academic year: 2019
Degree: BACHELOR'S DEGREE IN AUTOMOTIVE ENGINEERING (Syllabus 2017). (Teaching unit Compulsory)
ECTS credits: 6 Teaching languages: Catalan

Teaching staff

Coordinator: Bergas Jane, Joan Gabriel
Freijo Alvarez, Modesto
Others: Bergas Jane, Joan Gabriel
Freijo Alvarez, Modesto

Degree competences to which the subject contributes

Specific:

1. (ENG) Coneixement per al càlcul i disseny de línies elèctriques i transport d'energia elèctrica.
2. (ENG) Coneixement de conceptes bàsics dels circuits elèctrics.
3. (ENG) Elements constituents dels circuits elèctrics.

Transversal:

4. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.
5. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
6. 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

330515 - E - Electrical Engineering

Study load

Total learning time: 150h	Hours large group:	30h	20.00%
	Hours medium group:	0h	0.00%
	Hours small group:	30h	20.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

330515 - E - Electrical Engineering

Content

title english	Learning time: 49h Theory classes: 12h Laboratory classes: 4h Self study : 33h
Description: content english	
title english	Learning time: 52h Theory classes: 16h Laboratory classes: 6h Self study : 30h
Description: content english	
title english	Learning time: 25h Theory classes: 6h Laboratory classes: 2h Self study : 17h
Description: content english	
title english	Learning time: 38h Theory classes: 11h Laboratory classes: 3h Self study : 24h
Description: content english	

330515 - E - Electrical Engineering

Planning of activities

name english	Hours: 4h Laboratory classes: 2h Self study: 2h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 22h Theory classes: 2h Self study: 20h
name english	Hours: 22h Theory classes: 2h Self study: 20h

330515 - E - Electrical Engineering

Bibliography

Basic:

Nilsson, James W.; Riedel, Susan A. Circuitos eléctricos. 7ª ed. México: Pearson Educación, 2005. ISBN 8420544582.

Irwin, J. David. Análisis básico de circuitos en ingeniería. 6ª ed. México: Limusa Wiley, 2003. ISBN 9681862953.

Fraile Mora, Jesús. Máquinas eléctricas. 8ª ed. Madrid: Ibergarceta, 2008. ISBN 9788416228669.

Complementary:

Hayt, William Hart; Kemmerly, Jack E.; Durbin, Steven M. Análisis de circuitos en ingeniería. 7ª ed. México: McGraw Hill, 2007. ISBN 9789701061077.

Moreno, Narciso; Bachiller, Alfonso; Bravo, Juan Carlos. Problemas resueltos de tecnología eléctrica. Madrid: International Thomson, 2003. ISBN 8497321944.

Alcalde San Miguel, Pablo. Electrotecnia: instalaciones eléctricas y automáticas. 6ª ed. Madrid: Paraninfo, 2014. ISBN 9788428398770.

Freijo Álvarez, Modesto. Problemas de electrotecnia aplicada. Manresa: REMSA, 2014.

Others resources: