330532 - SE - Electric Systems

Coordinating unit: 330 - EPSEM - Manresa School of Engineering
Teaching unit: 709 - DEE - 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, English

Teaching staff
Coordinator: Bergas Jane, Joan Gabriel
Others: Professors del DEE

Degree competences to which the subject contributes

Basic:
CB3. That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.
CB4. Students can transmit information, ideas, problems and solutions to a specialized and non-specialized audience.

Specific:
CE9. Knowledge and use of the principles of theory of circuits and electrical machines and capacity for the design of electrical systems in the automotive industry.

Generical:
CG1. Ability to write and develop projects in the field of automotive engineering for the construction, renovation, repair, maintenance, recycling, manufacture, installation, assembly or operation of: structures, mechanical equipment, energy installations, electrical and electronic installations, plants and industrial plants and manufacturing and automation processes.
CG2. Capacity for management of the activities that are the subject of the engineering projects described in the previous section.
CG3. Knowledge in basic and technological subjects that will enable them to learn new methods and theories and give them the versatility to adapt to new situations.
CG4. Ability to solve problems with initiative, decision-making, creativity, critical reasoning and to communicate and transmit knowledge, skills and skills in the field of automotive engineering.
CG10. Ability to work in a multilingual and multidisciplinary environment.

Transversal:
1. 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.
2. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
3. EFFECTIVE USE OF INFORMATION RESOURCES - Level 2. Designing and executing a good strategy for advanced searches using specialized information resources, once the various parts of an academic document have been identified and bibliographical references provided. Choosing suitable information based on its relevance and quality.
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.
5. 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.
6. FOREIGN LANGUAGE: Achieving a level of spoken and written proficiency in a foreign language, preferably English,
that meets the needs of the profession and the labour market.

Learning objectives of the subject

Study load

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<td>Hours small group:</td>
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Laboratory classes: 2h  
Self study: 10h |
| title english | 23h | Theory classes: 6h  
Laboratory classes: 2h  
Self study: 15h |
| title english | 23h | Theory classes: 4h  
Laboratory classes: 4h  
Self study: 15h |
| title english | 23h | Theory classes: 4h  
Laboratory classes: 4h  
Self study: 15h |
| title english | 18h | Theory classes: 8h  
Self study: 10h |
Planning of activities

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Bibliography

Basic:


Complementary: