Course guide
330540 - SP - Propulsion Systems

Unit in charge: Manresa School of Engineering
Teaching unit: 709 - DEE - Department of Electrical Engineering.
750 - EMIT - Department of Mining, Industrial and ICT Engineering.

Degree: BACHELOR'S DEGREE IN AUTOMOTIVE ENGINEERING (Syllabus 2017). (Optional subject).

Academic year: 2022 ECTS Credits: 6.0 Languages: Catalan, English

LECTURER

Coordinating lecturer: Bergas Jané, Joan Gabriel
Others: Felipe Blanch, Jose Juan De

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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.

General:
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 of basic and technological subjects that will enable students to learn new methods and theories and that will endow them with the versatility needed 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.

Transversal:
CT5. 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.

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.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

1. Apply correctly the fundamental concepts of electric propulsion.
2. Apply correctly the fundamental concepts of hybrid propulsion.
3. Apply correctly the basic concepts of propulsion using hydrogen batteries.
STUDY LOAD

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<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tr>
<td>Self study</td>
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Total learning time: 150 h

CONTENTS

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<th>Full-or-part-time</th>
<th>Theory classes</th>
<th>Laboratory classes</th>
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Full-or-part-time: 12h
Theory classes: 9h
Laboratory classes: 3h

GRADING SYSTEM

BIBLIOGRAPHY

Basic: