

Course guide

330506 - SAU - Automotive Sector

Last modified: 04/05/2023

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

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

Academic year: 2023 **ECTS Credits:** 3.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: Albiol Rodriguez, Jordi

Others: Vives Costa, Jordi

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

CE6. An adequate understanding of business concepts, the institutional and legal framework of companies, and business organisation and management.

CE14. Knowledge of and a capacity for project organisation and management. Knowledge of the organisational structures and the functions of the automobile industry.

Generical:

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.

CG7. A capacity for analysing and assessing the social and environmental impact of technical solutions.

CG10. The ability to work in a multilingual and multidisciplinary environment.

Transversal:

1. ENTREPRENEURSHIP AND INNOVATION - Level 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.
 2. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 1. Analyzing the world's situation critically and systemically, while taking an interdisciplinary approach to sustainability and adhering to the principles of sustainable human development. Recognizing the social and environmental implications of a particular professional activity.
 3. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.
 4. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.
 5. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.
 6. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.
 7. 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.
- 01 EIN N2. ENTREPRENEURSHIP AND INNOVATION - Level 2. Taking initiatives that give rise to opportunities and to new products and solutions, doing so with a vision of process implementation and market understanding, and involving others in projects that have to be carried out.

Basic:

CB1. Students will be able to demonstrate their knowledge of a field of study that builds on secondary education and is usually found at a level that, while supported by advanced textbooks, also includes aspects that involve knowledge of the latest developments in the field of study.

CB2. Students will be able to apply their knowledge to their work or vocation in a professional manner and demonstrate that they possess the competencies that are typically demonstrated by elaborating and defending arguments and solving problems in the field of study.

TEACHING METHODOLOGY

MD1 Master class or lecture (EXP)

MD2 Problem solving and case study (RP)

MD6 Large-scale project or assignment (PA)

LEARNING OBJECTIVES OF THE SUBJECT

The course aims to provide basic knowledge about the automotive sector as well as the planning and life cycle of a product.

The learning objectives include the following:

- Knowing and understanding the main characteristics of the automotive sector.
- Knowing and understanding the stages of the product life cycle and associated strategies.
- Knowing and understanding the operation of sales and after-sales processes.

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	40.00
Self study	45,0	60.00

Total learning time: 75 h

CONTENTS

Topic 1: The automotive industry

Description:

Overview of the automotive industry. Characterisation of the sector. Strategic objectives of the sector.

Specific objectives:

To learn the structure of the automotive sector. To understand the sector. To learn how to analyse and implement the sector's strategic objectives.

Related activities:

Specific work on content (Activity 1).

Full-or-part-time: 25h

Theory classes: 10h

Self study : 15h



Topic 2: Product planning and life cycle

Description:

Phases of the life cycle of a product. Introduction, growth, maturity, decline.
Features and strategies.

Specific objectives:

To learn how to analyse and apply the life cycles of an automotive product.

Related activities:

Specific work on content (Activity 2).

Full-or-part-time: 25h

Theory classes: 10h

Self study : 15h

Topic 3: Sales and after-sales processes

Description:

Sales and after-sales processes:
Presale. Sale. After sale. Customer satisfaction.

Specific objectives:

To know and understand the sales and after-sales processes.

Related activities:

Specific work on content (Activity 3).

Full-or-part-time: 25h

Theory classes: 10h

Self study : 15h

ACTIVITIES

Activity 1: Work on the automotive industry

Description:

An assignment on the automotive sector chosen from those proposed by the professor. To be presented in public.

Specific objectives:

Development of techniques and reasoning strategies for analysis.
Written and oral communication.
Teamwork.
A third language.
Sound use of information resources.
Social commitment and sustainability.
Innovation.

Material:

On the Atenea virtual campus

Delivery:

20% of the mark

Full-or-part-time: 16h

Theory classes: 1h

Self study: 15h



Activity 2: Work on the life cycle

Description:

An assignment on the life cycle chosen from those proposed by the professor. To be presented in public.

Specific objectives:

Development of techniques and reasoning strategies for analysis.
Written and oral communication.
Teamwork.
A third language.
Sound use of information resources.
Social commitment and sustainability.
Innovation.

Material:

On the Atenea virtual campus

Delivery:

35% of the mark

Full-or-part-time: 16h

Theory classes: 1h

Self study: 15h

Activity 3: Work on sales and after-sales processes

Description:

An assignment on sales and after-sales processes chosen from those proposed by the professor. To be presented in public.

Specific objectives:

Development of techniques and reasoning strategies for analysis.
Written and oral communication.
Teamwork.
A third language.
Sound use of information resources.
Social commitment and sustainability.
Innovation.

Material:

On the Atenea virtual campus

Delivery:

35% of the mark

Full-or-part-time: 16h

Theory classes: 1h

Self study: 15h

GRADING SYSTEM

Activity 1: 20% of the mark

Activity 2: 35% of the mark

Activity 3: 35% of the mark

Class attendance and participation: 10% of the mark



EXAMINATION RULES.

It is essential to have attended 70% of classes to pass the subject.

BIBLIOGRAPHY

Basic:

- Sernauto. Sernauto. Asociación Española de Proveedores de Automoción [on line]. 2018 [Consultation: 19/11/2020]. Available on: <http://www.sernauto.es/>.
- Yang, Guangbin. Life cycle reliability engineering. Hoboken: Wiley, 2007. ISBN 9780471715290.
- Bueno Oliveros, José Antonio. Diagnosi del sector de l'automòbil a Catalunya: situació actual i perspectives [on line]. Barcelona: Enginyers Industrials de Catalunya, 2004 [Consultation: 19/11/2020]. Available on: https://ww3.eic.cat/sites/default/files/publicacions/20051219_222117diagnosi_cat.pdf.
- Díaz i Claver, Eva; Salazar Pérez, Míriam, coords. Perspectives del sector de l'automoció a Catalunya [on line]. Barcelona: Enginyers Industrials de Catalunya, 2004 [Consultation: 19/07/2017]. Available on: https://ww3.eic.cat/sites/default/files/publicacions/20051219_221916monografic04.pdf.
- Anfac. Anfac. Asociación Española de Fabricantes de Automóviles y Camiones: portal de transparencia [on line]. 2012 [Consultation: 19/11/2020]. Available on: <http://www.anfac.com/>.