

330506 - SAU - Automotive Sector

Coordinating unit:	330 - EPSEM - Manresa School of Engineering
Teaching unit:	750 - EMIT - Department of Mining, Industrial and ICT Engineering
Academic year:	2019
Degree:	BACHELOR'S DEGREE IN AUTOMOTIVE ENGINEERING (Syllabus 2017). (Teaching unit Compulsory)
ECTS credits:	3
Teaching languages:	Catalan, English

Teaching staff

Coordinator:	Albiol Rodriguez, Jordi
Others:	Felipe Blanch, Jose Juan De

Degree competences to which the subject contributes

Basic:

- CB1. The students have demonstrated to possess and to understand knowledge in an area of study that starts from the base of the general secondary education, and is usually found to a level that, although it relies on advanced textbooks, also includes some aspects that involve knowledge from the vanguard of their field of study.
- CB2. Students can apply their knowledge to their work or vocation in a professional way and possess the skills that are usually demonstrated through the elaboration and defense of arguments and problem solving within their area of study.

Specific:

- CE6. Adequate knowledge of the concept of company, institutional and legal framework of the company. Organization and management of companies.
- CE14. Knowledge and skills to organize and manage projects. Knowledge of the organizational structure and functions of the automotive industry.

Generical:

- 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.
- CG7. Ability to analyze and assess the social and environmental impact of technical solutions.
- CG10. 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

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with the future needs of the graduates of each course.

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

Total learning time: 75h	Hours large group:	30h	40.00%
	Hours medium group:	0h	0.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	45h	60.00%

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Content

<p>Topic 1: The automotive industry</p>	<p>Learning time: 25h Theory classes: 10h Self study : 15h</p>
<p>Description: Overview of the automotive industry. Characterisation of the sector. Strategic objectives of the sector.</p> <p>Related activities: Specific work on content (Activity 1).</p> <p>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.</p>	
<p>Topic 2: Product planning and life cycle</p>	<p>Learning time: 25h Theory classes: 10h Self study : 15h</p>
<p>Description: Phases of the life cycle of a product. Introduction, growth, maturity, decline. Features and strategies.</p> <p>Related activities: Specific work on content (Activity 2).</p> <p>Specific objectives: To learn how to analyse and apply the life cycles of an automotive product.</p>	
<p>Topic 3: Sales and after-sales processes</p>	<p>Learning time: 25h Theory classes: 10h Self study : 15h</p>
<p>Description: Sales and after-sales processes: Presale. Sale. After sale. Customer satisfaction.</p> <p>Related activities: Specific work on content (Activity 3).</p> <p>Specific objectives: To know and understand the sales and after-sales processes.</p>	

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Planning of activities

<p>Activity 1: Work on the automotive industry</p>	<p>Hours: 16h Theory classes: 1h Self study: 15h</p>
<p>Description: An assignment on the automotive sector chosen from those proposed by the professor. To be presented in public.</p> <p>Support materials: On the Atenea virtual campus</p> <p>Descriptions of the assignments due and their relation to the assessment: 20% of the mark</p> <p>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.</p>	
<p>Activity 2: Work on the life cycle</p>	<p>Hours: 16h Theory classes: 1h Self study: 15h</p>
<p>Description: An assignment on the life cycle chosen from those proposed by the professor. To be presented in public.</p> <p>Support materials: On the Atenea virtual campus</p> <p>Descriptions of the assignments due and their relation to the assessment: 35% of the mark</p> <p>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.</p>	
<p>Activity 3: Work on sales and after-sales processes</p>	<p>Hours: 16h Theory classes: 1h Self study: 15h</p>

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Description:

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

Support materials:

On the Atenea virtual campus

Descriptions of the assignments due and their relation to the assessment:

35% of the mark

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.

Qualification 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

Regulations for carrying out activities

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

Bibliography

Basic:

Anfac. Anfac. Asociación Española de Fabricantes de Automóviles y Camiones: portal de transparencia [on line]. 2012 [Consultation: 16/07/2018]. Available on: <<http://www.anfac.com/portada.action>>.

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: 19/07/2017]. Available on: <https://www.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://www.eic.cat/sites/default/files/publicacions/20051219_221916monografic04.pdf>.

Sernauto. Sernauto. Asociación Española de Proveedores de Automoción [on line]. 2018 [Consultation: 16/07/2018]. Available on: <<http://www.sernauto.es/>>.

Yang, Guangbin. Life cycle reliability engineering. Hoboken: Wiley, 2007. ISBN 9780471715290.

Others resources: