

## SUBJECT TEACHING GUIDE

G996 - Industrial Production and Organisation

Degree in Industrial Electronic Engineering and Automatic Control Systems

Academic year 2019-2020

1. IDENTIFYING DATA					
Degree	Degree in Industrial Electronic Engineering and Automatic Control Systems			Type and Year	Compulsory. Year 4
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Subject Area: Industrial Organisation and Production Module in Common with the Industrial Branch				
Course unit title and code	G996 - Industrial Production and Organisation				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS				
Name of lecturer	ALEJANDRO ALONSO ESTEBANEZ				
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Other lecturers	ENRIQUE MANUEL AMBROSIO DIAZ				

### 3.1 LEARNING OUTCOMES

- Obtaining knowledge about processes and technologies used in the manufacturing of electrical and electronic systems and devices.
- The purpose of the course is to teach the student the principal technologies and methods applied in Industrial Organization.

#### 4. OBJECTIVES

The students should know different technologies and techniques used in the manufacturing processes of : electronic circuits, MEMS systems, electrical machines and electrical drives.

The students should be able to select and use appropriate tools and equipment to control of manufacturing processes.

Regarding the content of the Subject under the profile of Administration of Companies , the students know the criteria and the tools in order to perform an economic and financial diagnosis of the company and develop actions that allow the improvement of the competitiveness.

Regarding the content of the Subject under the profile of Production Management, the students must know the criteria and the tools of Lean Procurement in order to obtain the balance load - capacity.

#### 6. COURSE ORGANIZATION

CONTENTS	
1	Introduction to manufacturing processes. - Manufacturing processes of electrical machines.
2	Manufacturing processes electronic systems and devices. - Electronic circuits, MEMS and integration processes.
3	Quality Management
4	Stocks Management
5	Aggregated Planning
6	Short and medium term operations planning. MRP, JIT.
7	Production Control.

#### 7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Exam 2 (Written examination).	Written exam	No	Yes	40,00
Exam 1 (Written examination).	Written exam	No	Yes	45,00
Project (Written work with oral exposition)	Work	No	No	10,00
Objective evidences (Written examination).	Written exam	No	No	5,00
<b>TOTAL</b>				<b>100,00</b>
<b>Observations</b>				
In order to pass the subject must be met each and every one of the following requirements:				
1) The mark of Exam 1 must be higher than or equal to 4.				
2) The mark of Exam 2 must be higher than or equal to 4.				
3)The mark calculated based on the following formula, $0.4 \cdot \text{Mark of Exam 1} + 0.1 \cdot \text{Mark of Project} + 0.45 \cdot \text{Mark of Exam 2} + 0.05 \cdot \text{Mark of Objective evidences}$ , must be higher or equal to 5.				
<b>Observations for part-time students</b>				
The continuous evaluation is replaced by works and exams in the final evaluation.				

## 8. BIBLIOGRAPHY AND TEACHING MATERIALS

### BASIC

Fundamentos de manufactura moderna. Autor: Mikell P. Groover.  
Precision Engineering. Autor: Venkatesh V.C..  
Mems & Microsystems. Design and Manufacture. Autor: Tai-Ran Hsu.  
Mechanical Design of Electric Motors. Autor: Wei Tong.  
Análisis del Balance: Editorial Deusto.  
Aspectos Tácticos de la Planificación de Operaciones (Tomo II): Autor: Machuca.  
Apuntes propios de la Asignatura.