Teaching guide

IDENTIFICATION DETAILS

Degree:	Industrial and Systems Engineering
Scope	Industrial engineering, mechanical engineering, automatic engineering, industrial organization engineering and navigation engineering
Faculty/School:	Higher Polytechnic School
Course:	ORGANIZATION OF COMPANIES AND PRODUCTION MANAGEMENT
Type:	Compulsory
ECTS credits:	6
Year:	3
Code:	5731
Teaching period:	Fifth semester
Subject:	Basic Process Engineering
Module:	Common to the Industrial Engineering Branch
Teaching type:	Classroom-based
Language:	Inglés
Total number of student study hours:	150

Teaching staff	E-mail
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SUBJECT DESCRIPTION

This subject offers students a general view of principles and fundamentals of business management, as well as basic principles and methodologies of operations and production management.

GOAL

The aim of the 'Business Organization and Production Management' course is for students to be able to understand and design the most appropriate integrated strategy for each organization and to plan and manage the production systems that best suit their business strategy and mission.

PRIOR KNOWLEDGE

Basic knowledge of business and mathematics (basic mathematics and statistics).
Subject 'Introduction to business management'.

COURSE SYLLABUS

- BLOCK 1: BUSINESS MANAGEMENT IN A DIVERSE AND GLOBAL ENVIRONMENT
o Business organizationono Risks and profit generation in a dynamic business environment Economics and impact on business and companieso Management of external factors and organisational cultureo Business and enterprise in global marketso Change management and disruptive innovationo Corporate Social Responsibility and Ethics
- BLOCK 2: BUSINESS MANAGEMENT - COMPETENCES AND SKILLS OF THE INDUSTRIAL ENGINEER
o Management and leadership. Roles and responsibilitieso People and team management Marketing and sales: Management of resources and activities or Management of financial resources
- BLOCK 3: OPERATIONS MANAGEMENT
o Strategic and Tactical Operations Decisionso The production plan Processes and Projectso Production and Productivity
- BLOCK 4: PRODUCTION MANAGEMENT
or Goods and Services Design or Process Design. Assembly line balancing. Workflow Management and Work Design. Study of methods so Capacity and constraint management. Strategy Layout Assignment Task. Work cellso Logistics management. Procurement. Inventory management and Lean Manufacturing

EDUCATION ACTIVITIES

For the development of the subject, activities have been combined where theoretical aspects are developed with others oriented towards application. The face-to-face activities foreseen in the subject are, fundamentally, the theoretical-practical sessions and practical classes.

Theoretical-practical sessions: in these sessions, with the help of audiovisual materials, the key concepts of the subject will be presented. key concepts of the subject. These classes will take place in a dynamic environment, focusing on teacher-student and student-student interaction. teacher-student and student-student interaction.

Practical classes: the aim is to reinforce, manipulate and master the theoretical concepts. The learning methodology based on problems, case studies and projects will predominate. A collaborative and constructive learning environment will be encouraged through student-student interaction as the axis of the resolution of the proposed problems.

Face-to-face work will be complemented by a significant amount of autonomous work by the student, mainly aimed at:

Individual study: Fixing the concepts dealt with in the theoretical-practical sessions, and the methods of applying these concepts in the practical classes.
Individual work: consisting of the preparation of exercises and practical cases.
Group work: derived from the theoretical-practical sessions and group projects.

All the study and work carried out by the student will be supervised and guided by the lecturer, both in the classes and face-to-face activities, as well as in tutorials, and face-to-face activities, as well as in tutorials, whether individual or in groups.
The student will have access to the materials, will be able to plan their work and will be able to communicate with the teacher and the rest of the students through the and the rest of the students through CANVAS.

DISTRIBUTION OF WORK TIME

TEACHER-LED TRAINING ACTIVITIES	INDIVIDUAL WORK
60 Horas	90 Horas
Expository lecture. 20h Seminar. 5h Presentation and defence of papers. 10h Theoretical-practical class 15h Tutorials. 5h Evaluation. 5h 60h	Individual study and work. 65h Team work. 25h 90h

LEARNING RESULTS

CRI9 - Basic knowledge of production and manufacturing systems.

CRI11 - Applied knowledge of business organization.

CRI12 - Knowledge and abilities to organize and manage projects. Know the organizational structure and functions of a project office.

SPECIFIC LEARNING RESULTS

Obtain the ability to plan the design of an industrial plant and design the supply and production processes. ||Obtain the ability to plan an integrated industrial strategy and design the basic operational policies and strategies of a company. ||Obtain the ability to design a quality system, process improvement, continuous improvement plans and related audits.

LEARNING APPRAISAL SYSTEM

ORDINARY CALL
• Attendance and Active Participation (PA): Assigned score: 1/10 Typology: individual
• Theoretical-practical activities (TP) Assigned score: 3/10 Typology: individual and group
• Theoretical partial knowledge tests (PCP): Assigned score: 6/10 Typology: individual Minimum average score of PCP to pass the subject: 5/10, and it is also essential to obtain at least 4/10 in all PCPs that are taken. Final score of the PCPs: it will be calculated by making the weighted average (MPCPs) of the grades of the PCPs • Final score = 0.1*PA + 0.3*TP + (0.6*MPCPs), provided that: The MPCPs is greater than 5 out of 10. The score of each PCP is greater than 4 out of 10. If the above requirements are not met, you must take the general knowledge test.
• Theoretical-practical Global Knowledge Test (PCG): This test will be divided into as many parts as PCP has had the subject, and the student will be presented: Mandatory: To PCPs in which less than 4/10 has been obtained, regardless of the MPCPs. Mandatory: If the MPCPs are less than 5 but the PCPs are greater than 4, the Student will be presented to all PCPs whose score is lower than 5. Voluntarily to those PCP in which, having obtained more than 5/10, you want to improve the grade for that part of the subject. In this case, the previous note is lost, leaving the PCG note as a final note.
The subject will be approved in an ordinary call when the weighted average of all the scores assigned to each part is equal to or greater than 5 points. In addition, it will be necessary to obtain the required minimum scores. Those students who are exempt from the obligation to attend class (academic exemption), either for second enrollment in the subject or after, or because they have express authorization from the Degree Management, will be evaluated by the same type of tests (PCP and PCG). The PA/TP percentage will be distributed over the corresponding PCPs in the subject. The part corresponding to PL will be considered that of the previous enrollment, as long as your grade is equal to or greater than 5/10.
EXTRAORDINARY CALL In the extraordinary call, the student must submit to those parts of the subject in which they have not obtained the required minimum score (except for the PA and TP parts that are not recoverable). The subject will be approved in an extraordinary call when the sum of all the scores assigned to each block is equal to or greater than 5 points. In addition, it will be necessary to obtain the required minimum scores. In the extraordinary call, the 6 points corresponding to the PCP can be obtained in a single global test.
Any type of fraud or plagiarism on the part of the student in an evaluable activity will be sanctioned as set out in the UFV Coexistence Regulations. For these purposes, any attempt to defraud the evaluation system, such as copying exercises, exams, practices, works or any other type of delivery, either from another colleague, or from unauthorized materials or devices, in order to make the teacher believe that they are his own, will be considered “plagiarism”.

ETHICAL AND RESPONSIBLE USE OF ARTIFICIAL INTELLIGENCE

1.- The use of any Artificial Intelligence (AI) system or service shall be determined by the lecturer, and may only be used in the manner and under the conditions indicated by them. In all cases, its use must comply with the following principles:

a) The use of AI systems or services must be accompanied by critical reflection on the part of the student regarding their impact and/or limitations in the development of the assigned task or project.
b) The selection of AI systems or services must be justified, explaining their advantages over other tools or methods of obtaining information. The chosen model and the version of AI used must be described in as much detail as possible.
c) The student must appropriately cite the use of AI systems or services, specifying the parts of the work where they were used and describing the creative process followed. The use of citation formats and usage examples may be consulted on the Library website(https://www.ufv.es/gestion-de-la-informacion_biblioteca/).
d) The results obtained through AI systems or services must always be verified. As the author, the student is responsible for their work and for the legitimacy of the sources used.
2.- In all cases, the use of AI systems or services must always respect the principles of responsible and ethical use upheld by the university, as outlined in the Guide for the Responsible Use of Artificial Intelligence in Studies at UFV. Additionally, the lecturer may request other types of individual commitments from the student when deemed necessary.
3.- Without prejudice to the above, in cases of doubt regarding the ethical and responsible use of any AI system or service, the lecturer may require an oral presentation of any assignment or partial submission. This oral evaluation shall take precedence over any other form of assessment outlined in the Teaching Guide. In this oral defense, the student must demonstrate knowledge of the subject, justify their decisions, and explain the development of their work.

BIBLIOGRAPHY AND OTHER RESOURCES

Basic

Jay Heizer/Barry Render Production and Operations Management: Strategic Decisions 8 Madrid: Prentice Hall, ISBN: 978-84-832-2533-2

Additional

William Nickels; James McHugh; Susan McHugh. ISE Understanding Business McGraw-Hill Education. ISBN-10:126009233X/ISBN-13:978-1260092332