



Universitat de Lleida

DEGREE CURRICULUM **ORGANIZATION OF PRODUCTION**

Coordination: FLORENSA GUIU, ROSA MARIA

Academic year 2018-19

Subject's general information

Subject name	ORGANIZATION OF PRODUCTION			
Code	102117			
Semester	1st Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Master's Degree in Industrial Engineering	1	COMPLEMENTARY TRAINING	Attendance-based
	Bachelor's Degree in Mechanical Engineering	3	COMPULSORY	Attendance-based
	Bachelor's Degree in Automation and Industrial Electronic Engineering	3	COMPULSORY	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRAULA		TEORIA
	Number of credits	3		3
	Number of groups	3		2
Coordination	FLORENSA GUIU, ROSA MARIA			
Department	BUSINESS ADMINISTRATION			
Teaching load distribution between lectures and independent student work	60 hrs. presential and 90hrs independent work			
Important information on data processing	Consult this link for more information.			
Language	Català			
Distribution of credits	Rosa Maria Florensa Guiu			
Office and hour of attention	Thursday and Friday from 13: 00-15: 00. Office 0.17. Faculty of Law and Economics			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
FLORENSA GUIU, ROSA MARIA	rmflorensa@aegern.udl.cat	15	

Subject's extra information

This course requires continuous work throughout the semester to achieve the objectives.

Critical thinking and capacity for abstraction is required.

You can find educational materials in the Virtual Campus: <http://cv.udl.cat> - Schemes notes - Collection of statements of exercises - Articles and publications - Materials and additional resources necessary to properly develop learning.

We recommend visiting frequently Virtual Campus space associated with the subject, announcements of relevant information and the publication of notices.

Besides tutoring schedule established, you can always send an email to the teacher to request a specific tutoring.

One way to approach the study of this subject is:

- Follow the explanations made by the teacher and make notes settings.
- Perform the exercises at the end of each topic.
- Read regularly notes and materials of different issues that are regularly made available through the virtual campus.
- Consult the literature to expand or emphasize key concepts
- To relate the theoretical contents that have been learned from the experience of the real environment.

Learning objectives

Provide knowledge regarding the Director of Production and Operations of production and service companies

Analyze different concepts and terminologies that require various quantitative or qualitative analysis.

Define different models, scenarios and techniques that are common in the subsystem of the management of the production enterprises

Competences

Degree-specific competences

- Applied knowledge of business organization.

Goals

- To understand what is the nature of the Production and Operations Management in any organization, its historical evolution and interaction function with other areas of operations of the company.
- Acquire the skills and techniques associated with the logistics configurations and strategies location and space distribution.
- Know the main techniques for controlling and improving the quality
- Basic knowledge of production and manufacturing systems.

Goals

- Understand the process of planning, scheduling and production control in their decision-making levels: long, medium and short term.
- Understand the main tools for inventory management and application of queuing theory in the process.

Degree-transversal competences

- Ability to consider the socio-economical context and sustainability criteria in engineering solutions.

Goals

- Identify mechanisms of change applicable in production and operations subsystems based on innovation, technology and application of knowledge
- Interpret Operations Management as a discipline applicable to the manufacture of goods and provision of services in all types of business and organization

- Ability to plan and organise personal work.

Goals

- Awareness of the need to consider any capacity planning level.
- Acquire the skills to make production plans, tactical and operational capacity.
- Establish strategies for organizing the jobs of workers and time machines.

- Ability to integrate within a company structure.

Goals

- Understand the influence of programming in production settings. operations, design master plans for planning and organizing materials.
- Ability to plan, schedule and control projects.

Subject contents

1.-Production and Company

- 1.1. - Company as system
- 1.2. - Subsystems.
- 1.3. - Business Strategy
- 1.4. - Production
- 1.5. - Organization of production
- 1.6. - Contributions to the organization of production
- 1.7. - Product, productivity and processes
- 1.8. - Operations Strategy
- 1.9. - Planning, control production subsystem

2.-Capacity and performance measures

- 2.1. - Long-term capacity
- 2.2. - Capacity Management.

2.3.- Techniques capacity assessment

3.-Programming and project management.

- 3.1.- programming methods (PERT, GANTT)
- 3.2.- Design methods and study of working time
- 3.3.- Time-Cost Models. Process Acceleration Process
- 3.4.- Project Management Methodologies
- 3.5.- Implementation of information systems project management

4.-Processes, location and plant layout

- 4.1. - Types of processes
- 4.2. - Causes of location decisions
- 4.3. - Theories and methods for the optimal location of the company
- 4.4. - Techniques for resolving distribution problems in plant
- 4.5. - Balancing production and assembly lines

5.-Production planning and needs assessment

- 5.1. - Concept planning
- 5.2. - Master Plan Development
- 5.3. - Bowman Model
- 5.4. - Calculation of needs
- 5.5. - Management and Material Requirements Planning: MRPI and CRP

6.-Inventory Management

- 6.1.- Concept, function and types of inventories
- 6.2.- Inventory costs.
- 6.3.- Inventory Management Models

7.-Queuing theory

- 7.1. - Service companies
- 7.2. - Characteristics of waiting lines
- 7.3. - Application of queuing models to system design

8.-Instruments Quality Management

- 8.1. - Historical stages of quality management.
- 8.2. - The ISO 9001:2008 and the EFQM
- 8.3. - Costs of quality and non-quality
- 8.4. - Quality Control
- 8.5. - Statistical Process Control
- 8.6. - Control Charts
- 8.7. - Acceptance Sampling
- 8.8. - Continuous improvement (kaizen)

9. Industrial Maintenance

- 9.1.- Types and levels of industrial maintenance
- 9.2.- Control of maintenance management
- 9.3.- Analysis of the reliability of equipment
- 9.4.- Total Productive Maintenance (TPM)

10.-Innovation and Technology

- 10.1. - Innovation vs technology.
- 10.2. - Concepts in the environment of innovation management.
- 10.3. - Characteristics of the companies continued success
- 10.4. - Manufacturing technology.

Methodology

Week	Descriptor:	Classroom activity	HTP (2) (Hours)	Autonomous work activity	HTNP (3) (Hours)
Week 1	Presentation Theme 1	Presentation of the subject Master Class	2	Understanding of the program	3
Week 2	Theme 2	Master class and problems Approach to problems and Resolution	4	Study of the topic, exercises and cases	6
Week 3	Theme 2	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises	6
Week 4	Theme 3	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises	6
Week 5	Theme 4	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises	6
Week 6	Theme 4	Approach to problems and Resolution	4	Study of the topic and exercises	6
Week 7	Theme 5	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises Preparation Exercises and Case 1	6
Week 8	Theme 5	Approach to problems and Resolution Tutoring	4	Study of the topic and exercises Preparation Exercises and Case 1. Raising doubts	4
Week 9	Test theory and practice (PTP)	Individual test	2	Preparation test	6
Week 10	Theme 6	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises Presentation Exercises and Case 1.	6
Week 11	Theme 7	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises	6
Week 12	Theme 7	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises	6
Week 13	Theme 8	Approach to problems and Resolution	2	Study of the topic and exercises	3
Week 14	Theme 9	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises	6
Week 15	Theme 9 Theme 10	Master class and problems Approach to problems and Resolution	4	Study of the topic and exercises	3

Week	Descripton:	Classroom activity	HTP (2) (Hours)	Autonomous work activity	HTNP (3) (Hours)
Week 16	Theme 10	Approach to problems and Resolution Group tutoring	3	Study of the topic and exercises Preparation and presentation exercices and Case 2.	3
Week 17/18	Test theory and practice 2 (PTP)	Individual test	2	Preparation test	5
TOTAL			60		90

(2)HTP = Hours to attended work.

(3)HTNP = Hours no attended work.

Evaluation

Assessment Activities	Criteria	%	Dates	O/V (1)	I/G (2)	Remarks
PTP 1 (Test theory and practice 1)	Themes 1 to 5	35%	Week 7	O	I	It is required to pass this exam. You can recover
PTP 2 (Test theory and practice 2)	Themes 6 to 10	35%	Week 16	O	I	It is required to pass this exam. You can recover
Exercise and practice 1		15%	Week 8	O	G	It is required present properly this activity. You cannot recover
Exercise and practice 2		15%	Week 16	O	G	t is required to pass this exam. You can recover You cannot recover
Voluntary exercices		Rounding note	Week 9 and 17	V	I	It's voluntary

(1)Required / Voluntary

(2)Individual / Group

Notes:

The subject Production Management will be qualified only by continuous assessment

The Continuous assessment is that the student obtains scores of 4 activities from two written tests and the presentation of two exercises / case studies.

Therefore, to pass this subject **IS MANDATORY TO APPROVE ALL 4 ACTIVITIES**, considering:

a) The completion of two written tests used to evaluate program content. The first test will be to items 1, 2, 3, 4 and 5. The second test items 6, 7, 8, 9 and 10 (variable depending on the pace)

Each written test will count **35% of the final punctuation**.

b) The presentation of the exercises / case studies proposed, will be valued and a value for each Exercise / Case **15% of the final punctuation**

The note Rounding can be obtained by submitting voluntary exercises. Rounding be counted **when the subject has been approved.**

Important:

1. It is obligatory to give evidence as mandatory practices in a timely manner. They should be presented correctly. There is NO recovery.
2. The date of the written tests is not postponed for disease, coinciding with another test, or for any other reason.
3. The date of the two written tests will be announced beforehand and you can not change the schedule.
4. There are final exam to retrieve them parts of the written test of theory and practice (PTP) have been suspended (Note <5.00).

Aspects to keep in mind when making the written tests:

- In the written tests can be carried only the pen and calculator (not programmable)
- You can not take notes or any material with the contents of the program, either mobile
- Students who copy, by any means, directly get the failing grade in the final grade

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