

## Course guide

### 340088 - MARK - Marketing and Production

**Last modified:** 19/05/2026

**Unit in charge:** Vilanova i la Geltrú School of Engineering  
**Teaching unit:** 732 - OE - Department of Management.

**Degree:** BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2009). (Compulsory subject).

**Academic year:** 2026    **ECTS Credits:** 6.0    **Languages:** Catalan, Spanish

#### LECTURER

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**Coordinating lecturer:** JOSE MARIA COLOMER MUR

**Others:** Primer quadrimestre:  
SEVERINO ABAD PEQUEÑO - D7011, D7012, D7021, D7111, D7112  
JOSE MARIA COLOMER MUR - D7011, D7012, D7021, D7111, D7112  
NATHALIE SEGURA CASTRO - D7011

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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**Transversal:**

1. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
3. 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.
5. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.
7. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.
4. 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.

## TEACHING METHODOLOGY

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### Exhibitions-synthesis

In the Theory sessions, the teacher will carry out an exposition of the contents, the theoretical bases of the subject, concepts, methods and results will be introduced, illustrating them with convenient examples to facilitate their understanding . This exhibition is understood as a guide for the students' study work, with the function of presenting the topic, proposing material for their study, clarifying doubts and making a synthesis.

For each subject, the following will be provided:

- The material used in class exhibitions and other complementary material that will be available on the Digital Campus.
- Specific bibliography with indication of location, preferring material in electronic format.

### Case work and articles

The work on cases or articles will be based on the questions proposed by the teacher. These works must be handed in on the day agreed upon at the beginning of the session where they will be discussed in the class group. The maximum deadline for handing in a case is set out in the calendar. The teacher can upload to the Digital Campus, as a reference and supplementary guide, some of the most well-evaluated works of each installment.

Casework aims to foster the following skills:

- Understanding of the situation presented and ability to synthesize its most relevant aspects.
- Application of the concepts studied to practical cases.
- Achievement of the complexity of real situations, the different points of view and the various dimensions of organizational and management phenomena.
- Presentation of written documents.
- Skills to exchange points of view and discuss, and ability to learn from the debate. practices

The practices will be carried out in groups, which will be formed at the beginning of the year and will be maintained.

Throughout the course, practices will be carried out where problems will be posed to be solved, in which it will be necessary to apply the knowledge that is being acquired. These practices act as the backbone of learning, following the principles of project-based learning.

For each practice, a dossier will be provided containing the objectives, description, delivery date and assessment criteria. Each practice will consist of a report and a ppt presentation.

### Oral presentations of the practices by the students

Students may be asked to make an oral presentation of one of the practices carried out. Small group and individual tutoring

The teacher will follow, individually and in small groups, the progress of the student and will tutor their practices, providing feedback on their progress and the degree of achievement of the objectives of their work, while giving directions for its improvement.

## LEARNING OBJECTIVES OF THE SUBJECT

The subject is structured in two parts, with quite different contents but which the student needs to integrate from an overall view, since Marketing and Production are two distinct functions within the structure of a company, but which work coordinated

The main objective of the subject is for students to have sufficient information to understand each of these parts, since the Product Design function will be related to both.

The subject will create a common thread between the two parts based on a practical case that the students will develop throughout the course.

### MARKETING BLOCK

1. Analyze, interpret and explain the interactions that occur between marketing and production decisions and their influence on the professional exercise of the product design engineering function.
2. Know and understand the transition from mass marketing to digital marketing and how companies are adapting marketing to the new environments presented by Industry 4.0.
3. Identify and understand the change processes that marketing departments are developing in companies and the main trends.

### PRODUCTION BLOCK

4. Know the function, costs and production process of the company.
5. Use techniques and tools for the design of a manufacturing plan at its different levels.
6. Use basic techniques and tools for quality and safety management.

## STUDY LOAD

| Type              | Hours | Percentage |
|-------------------|-------|------------|
| Hours large group | 45,0  | 75.00      |
| Hours small group | 15,0  | 25.00      |

**Total learning time:** 60 h

## CONTENTS

### MQ\_1 Integration of marketing and production decisions

#### Description:

Content

1.1. Marketing / production interaction.

1.2. Product and marketing engineering interaction

#### Specific objectives:

Understand the interrelation of the marketing and production functions and variables that affect the whole of the dynamics of the company, and how this dynamic influences the business decisions and their results.

#### Related activities:

**Full-or-part-time:** 1h

Theory classes: 1h

#### MQ\_2 From mass marketing to digital marketing

**Description:**

- 2.1 Evolution of marketing. Current trends.
- 2.2 Market-oriented marketing
- 2.3 Marketing in the digital age

**Specific objectives:**

Understand how marketing has evolved throughout its history, what are its highlights and what are the current trends

**Full-or-part-time:** 3h

Theory classes: 2h

Practical classes: 1h

#### MQ\_3 Marketing in Industry 4.0

**Description:**

- 3.1. From industry 3.0 to 4.0
- 3.2. Marketing in Industry 4.0

**Specific objectives:**

Learn about the evolution and marketing towards digitalization.

**Full-or-part-time:** 1h

Theory classes: 1h

#### MQ\_4 Centenials: the new marketing target group

**Description:**

- 4.1. Changes in the target group of marketing
- 4.2. Marketing and lifestyles
- 4.3. Lifestyle characteristics according to the generational profile
- 4.4. Millennials and Centenials, preferred target groups for marketing

**Specific objectives:**

To know the main tendencies that mark the studies of the lifestyles according to the generational profiles

**Full-or-part-time:** 1h

Theory classes: 1h

#### MQ\_8 Marketing and packaging

**Description:**

- 8.1 Packaging in relation to the product
- 8.2 Packaging and brand image
- 8.3 Evolution of packaging
- 8.4 Packaging conditioning factors as a marketing tool
- 8.5 Packaging trends
- 8.6 Post-covid packaging<sup>21</sup>

**Specific objectives:**

Know and apply packaging strategies as an element of brand communication and customer relationship.

**Full-or-part-time:** 12h

Theory classes: 8h

Practical classes: 4h

#### MQ\_5 The era of omnichannel marketing

**Description:**

- 5.1 Evolution of sales channels: from multichannel to omnichannel.
- 5.2 The growth of digitalization in the relationship with the customer.
- 5.3 Marketing and Big Data.
- 5.4 Cases of good practices in omnichannel strategy.

**Specific objectives:**

Know the main omnichannel strategies that brands are developing.

**Full-or-part-time:** 1h

Theory classes: 1h

#### MQ\_6 Creative evolution of marketing

**Description:**

- 6.1 Advertising, the channel of communication between brands and the consumer.
- 6.2 Creative evolution of advertising media.

**Specific objectives:**

Learn about the evolution of the promotion strategies developed by brands

**Full-or-part-time:** 1h

Theory classes: 1h

#### MQ\_7 Digital Marketing Trends

**Description:**

- 7.1 Main trends in digital marketing.
- 7.2 Marketing and Artificial Intelligence.
- 7.3 Impact of AI on marketing strategies

**Specific objectives:**

Learn about the effects and changes that have taken place in marketing with the introduction of AI.

**Full-or-part-time:** 4h

Theory classes: 2h

Practical classes: 2h

### PRO\_10 Organization Of the economic activity

**Description:**

Contents:

- 10.1. Definition of processes.
- 10.2. Conceptual classification of processes
  - Operating processes.
  - Support processes
  - Strategic processes.
- 5.3. Internal Value System.
- 5.4. External Value System.
- 5.5. Diagramming? Of processes.
- 5.6. Added value and waste

**Specific objectives:**

Understanding how the needs of customers are based on the processes that maximize the VA.

**Full-or-part-time:** 1h

Theory classes: 1h

### PRO\_11 Resources

**Description:**

Types of processes  
Production time, delivery time, performance and quality.  
Calculation of the number of resources required  
How to dispose the resources in the most optimal way  
Stock and waiting calculations.  
Creation of layouts.  
Methodology of the 5S.

**Specific objectives:**

Once the processes are identified, choose them and have them in the most efficient and flexible way

**Full-or-part-time:** 1h

Theory classes: 1h

### PRO\_12 Total Quality

**Description:**

Model Jidoka.  
AMFE of processes.  
A3 Report.

**Specific objectives:**

Understanding how modern quality is based on making it always good, instead of controlling, and learning from problems, instead of simply correcting them

**Full-or-part-time:** 1h

Theory classes: 1h

### PRO\_13 Perfection. Quality Continuous Improvement

**Description:**

Contents:

- 13.1. Organization of the workplace.
  - 5'S
  - Visual measurements
- 13.2. Jidoka
  - Jidoka Cases
  - Definition
- 13.3. quality
  - 'At what point in the process should quality be controlled and verified?
  - Quality at the source
  - Definition of quality.

**Full-or-part-time:** 1h

Theory classes: 1h

### PRO\_14 Quality management in the Workplace

**Description:**

Contents:

- 14.1. Quality definition
  - Efficient process management
  - Definition
  - Implementation stages
  - Models
- 14.2. Implementation of quality in productive processes
  - Product planning
  - Product design
  - Design processes
  - Control of production
  - Product control
- 14.3. Modal Analysis of faults and effects
- 14.4. Total quality models
  - EFQM
- 14.5. Tools for the analysis and improvement of processes
  - Ishikawa
  - Pareto diagram
  - Histogram
  - Dispersion
- 14.6. The statistical control of processes. SPC.
  - Control charts
  - Calculation of the capacity of a process

**Full-or-part-time:** 1h

Theory classes: 1h

## PRO\_15 Lean Startup

### Description:

Contents:

#### 15.1. Startup companies

- Which are?
- Are traditional business models valid? Needs and particularities not covered

#### 15.2. Lean StartUp Method

- Origin of the Lean StartUp Method
- 'What is the Lean StartUp Method?
- Characteristics, methodology and approach
- The focus on the client. Customer Development
- The PMH (Viable Minimum Product) and the Early Adopters the pivoting and the experiments to validate the Hypotheses The importance of the metrics in the decision making Generation of the Business Model
- The influence of Design Thinking

### Specific objectives:

Know the latest tendencies in horizontal management and fast response to the market.

### Full-or-part-time: 1h

Theory classes: 1h

## GRADING SYSTEM

In the evaluation of the student will be considered both the work done in group and the achievement of the contents assessed in individual written tests (exams). These exams will consist of one part of short questions or test type, and another of open questions or development. The students will also have a note obtained from the oral presentation of the practice, and one according to their attendance and contributions in the theoretical and practical classes.

Final Grade= Marketing Mark\* 0.5 + Production Mark\* 0.5

Important: Grades below 4.00 will not be graded and the student will be re-evaluated.

Marketing Mark= Exams Mark \* 0.5 + Assignments mark \* 0.4 + Oral presentation and participation mark \* 0,1

Production Mark= Exams Mark \* 0.5 + Assignments mark \* 0.4 + Oral presentation and participation mark \* 0,1

Students who may be eligible for reevaluation according to academic regulations may improve on a written exam only the corresponding mark "Exams Mark", which has a weight of 50% on the final grade of the subject, as indicated in the formula above.

## BIBLIOGRAPHY

### Basic:

- Kotler, Philip. Dirección de marketing [on line]. 15a ed. México: Pearson, 2016 [Consultation: 19/02/2024]. Available on: [https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB\\_BooksVis?cod\\_primaria=1000187&codigo\\_libro=4468](https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=4468). ISBN 9786073237000.

- Lambin, Jean-Jacques. Marketing estratégico. Madrid: ESIC, 2003. ISBN 8473563522.

- Munuera Alemán, José Luis. Estrategias de marketing : un enfoque basado en el proceso de dirección. 2a. Madrid: ESIC, 2012. ISBN 9788473568197.

- Kotler, Philip; Armstrong, Gary. Fundamentos de marketing [on line]. 13a ed. Ciudad de México: Pearson Educación de México, 2017 [Consultation: 19/02/2024]. Available on: [https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB\\_BooksVis?cod\\_primaria=1000187&codigo\\_libro=6678](https://www-ingebook-com.recursos.biblioteca.upc.edu/ib/NPcd/IB_BooksVis?cod_primaria=1000187&codigo_libro=6678). ISBN 9786073238458.

- Marketing : estrategias y aplicaciones sectoriales. Madrid: Civitas, 1994. ISBN 8447004341.