



Course guide

Course/Subject	Technical Projects Development and Manufacturing Engineering		
Materia	Manufacturing Processes Engineering		
Módulo	International Semester (Industrial Engineering School)		
Degree	International Semester (Industrial Engineering School)		
Plan	900	Identifier	
Time Interval	February-June	Type	
Nivel/Cicle	Degree	Course	
ECTS	6 (60h in class)		
Language	English		
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Departament	CMeIM EGI ICGF IM IPF		

1. Course Sense

1.1 Context

The main aim of this subject is the introduction of students in the field of the technical projects development about the design and manufacturing of a product.

1.2 Relation to other courses

This subject is related to subjects or courses about designing, market studies, manufacturing and product developing.

1.3 Requirements

No requirements.



2. Competences

CG2 Capability: organization and planning of work and time.

CG3 Capability: oral presentation.

CG4 Capability: rigorous writing.

CG6 Capability: problems solution.

CG7 Capability: critical reasonability/logical analysis.

CG8 Capability: applying knowledge to practical work.

CG10 Capability: design and developing of Projects.

CG11 Capability: creativity and innovation.

CG13 Capability: doing ethically and with social compromise.

CG15 Capability: managing with technical requirements and writing technical documents.

3. Objectives

- Elaborate a small Project for the presentation of a new product that responses to a need or problem that society has got.
For this:
 - Investigate about the field and market that the new product belongs to.
 - Look for the needs and problems that exist nowadays.
 - Propose an innovative solution specified as a product.
 - Present the scheme, functionalities, characteristics, materials, design, costs, security and commercialization of the product.
 - CE mark for the product.

4. Planning for students

ACTIVITIES IN CLASS	NUMBER OF HOURS	ACTIVITIES OUT OF CLASS	NUMBER OF HOURS
Theoretical classes	30	Researching activities	10
Practical classes	30	Documents analysis	20
Final Project presentation	2	Design and developing process	20
		Technical documents writing	30
		Presentation work	8
Total presencial	62	Total no presencial	88



5. Themes

There is only one principal theme that is followed during the semester.

ECTS:

a. Main aims

All the engineering profiles must know and manage perfectly in technical projects field. This is the main reason that guides this course. The main objective for students is to achieve the goals about a simple technical project for designing and developing a new product for the market.

b. Learning objectives

- Information sources researching
- Technical documents understanding
- Design a new product, functionalities, materials and commerce strategies
- Technical documents writing
- Results presentation and discussion

c. Content

All the contents are related to technical projects development and European directives.

d. Teaching methodology

- Master class (teacher)
- Discussion of ideas
- Individual and group work
- Presentation of results

e. Work planning

The work planning is weekly.

f. Evaluation

The final work consists in the presentation of the results of a simple technical Project about a new product to offer a solution to some society needs.

g. Basic references

- Online valid technical information sources.

h. Resources

- Usual class with typical Green-board.
- Computers laboratory with Digital board for teacher workplace.



6. Timeline

THEME	ECTS	TIME INTERVAL
Unique parte (the whole course)	6	The whole semester

7. Table about Evaluation process

EVALUATION PROCEDURES	WEIGHT OVER FINAL MARK	EXPLANATION
Final work document*	70%	*along the course there are several activities presented and evaluated
Final work presentation	30%	

8. Final aims

In this course, the student is going to be considered nearly as an engineer, although he or she is not yet. This is because they have to work by their own, like if they were working in a small company taking their first decisions, developing their first products or improving products that the company manufactures now.

This point of view is really interesting for students, as they want to feel how they are going to manage when they arrive at a company in their first job as engineers.

Scientist profiles are welcome too, because as the teacher I am in this course, I have been able to observe that they achieve the challenges as well as the engineering profiles, and also, they feel that this course is quite useful to improve their profile as future scientists.