

Course guide

280805 - 280805 - Project Management

Last modified: 10/07/2024

Unit in charge: Barcelona School of Nautical Studies
Teaching unit: 732 - OE - Department of Management.

Degree: MASTER'S DEGREE IN NAVAL AND OCEAN ENGINEERING (Syllabus 2017). (Compulsory subject).

Academic year: 2024 **ECTS Credits:** 5.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: XAVIER CODINAS POCH

Others: Primer quadrimestre:
XAVIER CODINAS POCH - MUENO

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

MUENO_CE9. Ability to organize and direct the construction of ocean platforms and artifacts

MUENO_CE15. Knowledge of economics and business management in the maritime field

Generical:

MUENO_CG1. Ability to solve complex problems and to make responsible decisions based on the scientific and technological knowledge acquired in basic and technological subjects applicable in naval and ocean engineering, and in management methods

MUENO_CG2. Ability to conceive and develop solutions that are technically, economically and environmentally appropriate to the needs of maritime or integral transportation of people and goods, of the use of oceanic resources and of the marine subsoil (fishing, energy, minerals, etc.), adequate use of the marine habitat and means of defense and maritime security)

MUENO_CG5. Ability to design and control the construction, repair, transformation, maintenance and inspection processes of previous mills

MUENO_CG6. Ability to conduct research, development and innovation in naval and ocean products, processes and methods

MUENO_CG8. Ability to analyze and interpret measurements, calculations, evaluations, appraisals, studies, reports, work plans and other similar works

MUENO_CG9. Ability to draft specifications that comply with the provisions of contracts, regulations and standards of the naval and industrial field

MUENO_CG11. Capacity for the management and direction of maritime companies

MUENO_CG14. Ability to analyze, assess and correct the social and environmental impact of technical solutions

MUENO_CG15. Ability to organize and direct multidisciplinary work groups in a multilingual environment, and to generate reports for the transmission of knowledge and results

Transversal:

CT1. ENTREPRENEURSHIP AND INNOVATION: Knowing and understanding the organization of a company and the sciences that govern the activity; be able to understand the business rules and relationships between planning, industrial and commercial strategies, quality and profit.

CT2. SUSTAINABILITY AND SOCIAL COMMITMENT: Know and understand the complexity of economic and social phenomena typical of the welfare society, being able to relate welfare to globalization and sustainability; acquire skills to use in a balanced manner compatible technology, technology, economics and sustainability.

CT3. TEAMWORK: Ability to work as a member of an interdisciplinary team, either as a member or performing management tasks, with the aim of contributing to projects pragmatically and sense of responsibility, assuming commitments considering the resources available.

CT4. EFFECTIVE USE OF INFORMATION RESOURCES: Manage the acquisition, structuring, analysis and visualization of data and information in the field of specialty, and critically evaluate the results of this management.

CT5. THIRD LANGUAGE Learning a third language, preferably English, with adequate oral and written and in line with the future needs of the graduates.

Basic:

CB6. Possess knowledge and understanding that provide a basis or opportunity be original in the development and / or application of ideas, often in a research context.

CB7. That the students can apply their knowledge and ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their study area.

CB8. Students should be able to integrate knowledge and handle the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the responsibilities social and ethical linked to the application of their knowledge and judgments.

CB9. That students can communicate their conclusions and the knowledge and Latest rationale underpinning to specialists and non Specialty clearly and unambiguously.

CB10. Students must possess the learning skills that enable them continue studying in a way that will be largely self-directed or autonomous.

TEACHING METHODOLOGY

SESSION STRUCTURE

The structure of the sessions will include:

- Basic concepts, tools to use and examples.
- Work in teams: application of the tools to a given example, the same for all the teams.
- Presentation of the results of the work of the teams to the whole group,
- Remarks and final instructions,

Some of the session will include a talk of an expert. In this cases the structure of the session will be appropriately adapted.

ASSIGNMENTS

Assignments will refer to the application of the analysed tools to particular cases and situations.

LEARNING OBJECTIVES OF THE SUBJECT

To be able to define and present the reason behind the development of a project

To be able to define and present the formal decisions to take before the development of a project

To be able to analyse the different aspects of a project

To have used a variety of project planning techniques

To be able to articulate key steps in project implementation

To be able to define and use control indicators and reports

STUDY LOAD

Type	Hours	Percentage
Hours large group	45,0	36.00
Self study	80,0	64.00

Total learning time: 125 h



CONTENTS

Bloc 1. Introduction

Description:

Unit 1.1 Project Management standards

Unit 1.2 Phase Gate methods

Unit 1.3 Agile methods and SCRUM

Related activities:

Definition of the main elements of the project of the course.

Full-or-part-time: 17h

Theory classes: 3h

Practical classes: 6h

Self study : 8h

Bloc 2. Requirements definition

Description:

Unit 2.1 Analysis of a problem (A3 tool)

Unit 2.2 Context: actors, processes and strategic needs

Unit 2.3 Elements of the Statement of Work

Related activities:

Development in project of the course of the elements presented in the block 2 of the content.

Full-or-part-time: 36h

Theory classes: 4h

Practical classes: 8h

Self study : 24h

Bloc 3. Proposal

Description:

Unit 3.1 Definition and analysis of business options

Unit 3.2 Cost and financial performance analysis

Unit 3.3 Elements of the Business Case and the Project Charter

Related activities:

Development in project of the course of the elements presented in the block 3 of the content.

Full-or-part-time: 36h

Theory classes: 4h

Practical classes: 8h

Self study : 24h



Bloc 4. Execution planning

Description:

Unit 4.1 Work Breakdown Structure and scheduling definition

Unit 4.2 Risk, cost and execution control management

Unit 4.3 Project Management Plan elements

Full-or-part-time: 36h

Theory classes: 4h

Practical classes: 8h

Self study : 24h

ACTIVITIES

Requirements definition

Description:

The students will define the requirements of a project working in teams.

Full-or-part-time: 20h

Self study: 20h

Proposal

Description:

The students will define the requirements of a project working in teams.

Full-or-part-time: 20h

Self study: 20h

Execution planning

Description:

The students will prepare an execution plan of the project.

Full-or-part-time: 20h

Self study: 20h

GRADING SYSTEM

Deliverables of activities 1 to 4: 10% each.

Presence is required

Mid-term exam: 20%

Final exam: 40%

The final exam will include questions related to activities 1 to 4. If the answers show that the student has little knowledge of the content of the deliverables, the individual grades corresponding to these deliverables will be lowered.

BIBLIOGRAPHY

Basic:

- Zwikael, Ofer; Smyrk, John. Project management for the creation of organisational value [on line]. London: Springer, 2011 [Consultation: 04/07/2019]. Available on: <http://dx.doi.org/10.1007/978-1-84996-516-3>. ISBN 9781849965163.
- Lester, Albert. Project management, planning and control : managing engineering, construction and manufacturing projects to PMI, APM and BSI standards [on line]. 5th ed. Amsterdam: Elsevier/Butterworth-Heinemann, 2007 [Consultation: 01/09/2022]. Available on: <https://www.sciencedirect-com.recursos.biblioteca.upc.edu/book/9780750669566/project-management-planning-and-control>. ISBN 9780750669566.
- A Guide to the project management body of knowledge (PMBOK® guide) [on line]. 6th ed. Newtown Square, Pennsylvania: Project Management Institute, [2017] [Consultation: 30/05/2022]. Available on: <https://ebookcentral-proquest-com.recursos.biblioteca.upc.edu/lib/upcatalunya-ebooks/detail.action?pq-origsite=primo&docID=5180849>. ISBN 9781628253900.