# SUBJECT TEACHING GUIDE

## 1187 - Economic Management

## Master's Degree in Marine Engineering

## Academic year 2026 - 2027

| 1. IDENTIFYING DATA | | | | | |
|---|---|---|---|---|---|
| Degree | Master's Degree in Marine Engineering | | | Type and Year | Compulsory. Year 1 |
| Faculty | School of Maritime Engineering | | | | |
| Discipline | Economic Management | | | | |
| Course unit title and code | 1187 - Economic Management | | | | |
| Number of ECTS credits allocated | 6 | Term | | Semester based (2) | |
| Knowledge Field | Industrial engineering, mechanical engineering, automation engineering, industrial organization engineering and navigation engineering | | | | |
| Web | | | | | |
| Language of instruction | Spanish | English Friendly | No | Mode of delivery | Combination of face-to-face and online training |

| | |
|---|---|
| Department | DPTO. CIENCIAS Y TECNICAS DE LA NAVEGACION Y DE LA CONSTRUCCION NAVAL |
| Name of lecturer | JOSE RAMON SAN CRISTOBAL MATEO |
| E-mail | jose.sancristobal@unican.es |
| Office | E.T.S. de Náutica. Planta: + 2. DESPACHO (268) |
| Other lecturers | |

| 4. OBJECTIVES |
|---|
| Kniow, analyze and optimize the economic management in the operation of all marine industry |

| 6. SUBJECT PROGRAM | |
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| CONTENTS | |
| 1 | Probability density curves in Maintenance |
| 1 | Discete probability density functions |
| 1 | Continuous probability density functions |

| | |
|---|---|
| 1 | Reliability |
| 1 | Analysis of failures |
| 2 | Project management in the naval sector. CPM, PERT methods, the time-cost trade-off, resources asignation |
| 2 | The critical path method |
| 2 | The Pert method |
| 3 | Management and models of stocks |
| 3 | Stock control methods |
| 3 | Stock management methods |

## 7. ASSESSMENT METHODS AND CRITERIA

| Description | Type | Final Eval. | Reassessment | % |
|---|---|---|---|---|
| 25% | Activity evaluation with Virtual Media | No | Yes | 25,00 |
| 25% | Others | No | Yes | 25,00 |
| 50% | Written exam | No | Yes | 50,00 |
| TOTAL | | | | 100,00 |

**Observations**

Activities performed on Blackboard: 25%
Activities on-site: 25%
Continuous evaluation: 50%

**Observations for part-time students**

Part-time students should attend laboratory practices and evaluation tests in the same conditions as the rest of the students

## 8. BIBLIOGRAPHY AND TEACHING MATERIALS

**BASIC**

Caridis, P., 2001. Inspection, Repair and Maintenance of Ship Structures. Witherby & Co Ltd, London.
Carter, A.D.S., Mechanical Reliability, 2nd edn. Macmillan, London, 1969.
Collins, J.A., Failure of Materials in Mechanical Desig, Wiley, New York (1981).
Fullwood, R.F., Probabilistic Safety Assessment in the Chemical and Nuclear Industries , Butterworth-Heinemann, Oxford (1999).
García Bercedo, R., Irastorza Hernando, I., y Larrieta Fernández, I., 2003. Organización y mantenimiento del buque. Universidad del País Vasco, Servicio Editorial, Bilbao
Harrison, F. y Lock, Dennis, 2004. Advanced Project Management. A Structured approach. 4th edición. Gower, England
Heizer, J. y Render, B., 1997. Dirección de la Producción. Decisiones tácticas. Prentice Hall, Uk
Kapur,K.C. and Lamberson,L.R., Reliability in Engineering Design, Wiley, New York (1977).
Keller, G., 2005. Statistics for management and economics, 7ª edición. Thomson-Duxbury.
Kivensen, G., Durability and Reliability in Engineering Design, Pitman, London (1972).
Lyonnet, P., 1991. Maintenance Planning. Methods and mathematics. Chapman & Hall, USA.
Maldonado González, C., 1979. El mantenimiento preventivo.: 2nd ed. Índex, Madrid .