



## Course guide

# 280610 - 280610 - Coastal Navigation

Last modified: 09/05/2023

**Unit in charge:** Barcelona School of Nautical Studies

**Teaching unit:** 742 - CEN - Department of Nautical Sciences and Engineering.

**Degree:** BACHELOR'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT (Syllabus 2010). (Compulsory subject).

**Academic year:** 2023    **ECTS Credits:** 6.0    **Languages:** Catalan

## LECTURER

**Coordinating lecturer:** AGUSTIN MARTIN MALLOFRE

**Others:** Primer quadrimestre:

AGUSTIN MARTIN MALLOFRE - GNTM1, GNTM2, GNTM3, GNTM4, MNGTM, TEORE  
JORGE MONCUNILL MARIMÓN - GNTM1, GNTM2, GNTM3, GNTM4, MNGTM, TEORE

## DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

### Specific:

1. Knowledge of navigation techniques based on the determination of the position, heading, time, speed and distance. Ability to perform calculations: navigation co Ster kinematics of the ship, reckoning, plane sailing, navigation, great circle, celestial navigation, electronic navigation and inertial navigation. Lift charts.

## TEACHING METHODOLOGY

## LEARNING OBJECTIVES OF THE SUBJECT

- To know and use the navigation techniques based on the determination of the ship's position, course, time, speed and distance.
- To carry out the calculations by: coastal navigation and dead reckoning.

### Competencies

The espefic CE 18 together with the assessment of the competence STCW in the chart A-II/1: "Plan and conduction a passage and determine the position", in its section of terrestrial and coastal navigation, electronic systems of position fixing and navigation, echo-sounders, "Maintain a safe navigational watch" en its sections of Watchkeeping and Bridge Resource management. Additionally the competence "Use of ECDIS to maintain the safety of navigation" is assessed partially.

## STUDY LOAD

Type	Hours	Percentage
Hours medium group	20,0	13.33
Self study	90,0	60.00
Hours small group	10,0	6.67
Guided activities	10,0	6.67
Hours large group	20,0	13.33

**Total learning time:** 150 h



## CONTENTS

---

(ENG) Agulles nàutiques.

(ENG) Projeccions, cartografia.

(ENG) Navegació costanera, situacions a la vista de la costa.

(ENG) Navegació d'estima.

(ENG) Organització de la derrota.

(ENG) Estudi inicial de les marees, anuari de marees, sistemes de predicció.

(ENG) Pràctiques de simulador.

## GRADING SYSTEM

---

## BIBLIOGRAPHY

---

### Basic:

- Urrutia y de Landaburu, Angel. Astronomía náutica y navegación : apuntes [on line]. [s.l]: [s.n], [19-] [Consultation: 18/07/2017]. Available on: <http://hdl.handle.net/2099.4/1228>.
- Bowditch, Nathaniel. American practical navigator : an epitome of navigation [on line]. Washington: Defense Mapping Agency Hydrographic/Topographic Center, 1984 [Consultation: 15/06/2022]. Available on: <https://msi.nga.mil/Publications/APN>.
- Moreu Curbera, José María; Martínez Jiménez, G. de F. Astronomía y navegación. Vol. 1 i Vol. 2. 3a ed. Vigo: [s.n], 1987-. ISBN 8485645014.
- Moreu Curbera, José María; Martínez Jiménez, G. de F. Astronomía y navegación. Vol. 3. 3a ed. Vigo: [s.n], 1972.
- Ibáñez, Itsaso; Gaztelu-Iturri ,Ricardo. Fundamentos de navegación marítima. [s.l]: Universidad del País Vasco. Servicio editorial, 2002. ISBN 8483734761.
- International Maritime Organization. Ships' routeing. 2013. Londres: Organización Marítima Internacional, 2013. ISBN 9789280115543.
- Vaquero Rico, Jaime. Navegación costera : problemas resueltos. 6a ed. Madrid: Pirámide, 2008. ISBN 9788436811216.
- Passage planning guidelines 2023 : incorporating Safe nav watch, Teamwork on the nav bridge. 2023 edition. Livingstone: Witherbys, 2023. ISBN 9781914993503.