

Course guide

280623 - 280623 - Celestial Navigation

Last modified: 27/05/2024

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: 2024 **ECTS Credits:** 6.0 **Languages:** Catalan

LECTURER

Coordinating lecturer: AGUSTIN MARTIN MALLOFRE

Others: Segon quadrimestre:
AGUSTIN MARTIN MALLOFRE - GNTM

REQUIREMENTS

It is required to having passed the subject 280610 Coastal navigation

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

2. 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.

Generical:

1. Capacitat PER CONCEBRE, I MANAGE TO IMPLEMENT SISTEMES Complexos L'ambit of L'ENGINYERIA NÀUTICA I TRANSPORT MARÍTIM

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

Knowledge of the celestial navigation techniques.

Competencies

The specific CE. 18 and additionally this subject is going to asses the competence STCW in its chart A-II/1: "Plan and conduction a passage and determine the position", in its section of celestial navigation, the ability to use celestial bodies to determine the ship's position.

STUDY LOAD

Type	Hours	Percentage
Self study	90,0	60.00
Hours large group	60,0	40.00

Total learning time: 150 h

CONTENTS

(ENG) Coordenades celestes.

(ENG) Triangle de posició.

(ENG) Identificació d'À½estels.

(ENG) Temps.

(ENG) Almanac Nàutic.

(ENG) Sextant.

(ENG) Recta d'À½altura.

(ENG) Laboratori de navegació.

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Urrutia y de Landaburu, Ángel. 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, Enrique. Astronomía y navegación. Vol.1 i Vol. 2. 3a ed. Vigo: [s.n.], 1987-. ISBN 8485645014.
- Moreu Curbera, José María; Martínez Jiménez, Enrique. Astronomía y navegación. Vol. 3. Vigo: [s.n.], 1972.
- Ibáñez, Itsaso; Gaztelu-Iturri, Ricardo. Fundamentos de navegación marítima. [s.l.]: Universidad del País Vasco. Servicio editorial, 2002. ISBN 8483734761.

Complementary:

- Mederos Martín, Luis. Navegación astronómica. Barcelona: Noray, 2008. ISBN 9788474861921.
- Saint-Lary, Roger. ABC de la navegación astronómica. Barcelona: Noray, 2007. ISBN 9788474861754.
- Howell, Susan P.. Practical celestial navigation. Mystic, CT: Mystic Seaport Museum, 1987. ISBN 0939510057.