

Course guide

280612 - 280612 - Maritime Medicine

Last modified: 01/03/2024

Unit in charge:	Barcelona School of Nautical Studies	
Teaching unit:	742 - CEN - Department of Nautical Sciences and Engineering.	
Degree:	BACHELOR'S DEGREE IN MARINE TECHNOLOGIES (Syllabus 2010). (Compulsory subject). BACHELOR'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT (Syllabus 2010). (Compulsory subject).	
Academic year: 2023	ECTS Credits: 3.0	Languages: Spanish

LECTURER

Coordinating lecturer:	PILAR APARICIO GARCIA
Others:	Primer quadrimestre: PILAR APARICIO GARCIA - DT, GNTM, GTM

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CE13. Knowledge and ability to apply the principles of health education marina.

STCW:
ME.1. A-III/1-4. Function: Controlling the operation of the ship and care for persons on board at the operational level
ME.2. A-III/1-4.5 Apply Medical first aid on board ship
ME.3. A-III/1-KUP 4.5.1 Medical aid: Practical application of medical guides and advice by radio, including the ability to take effective action based on such knowledge in the case of accidents or illnesses that are likely to occur on board ship
ME.4. A-III/1-4.8 Contribute to the safety of personnel and ship
ME.5. A-III/1-KUP 4.8.3 Knowledge of elementary first aid
ETO.1. A-III/6-CCS 2.5.3 Practical knowledge: Detection of machinery malfunction, location of faults and action to prevent damage
ETO.2. A-III/6-CCS 3.3.1 Lifesaving: Ability to organize abandon ship drills and knowledge of the operation of survival craft and rescue boats, their launching appliances and arrangements, and their equipment, including radio lifesaving appliances, satellite EPIRBs, SARTs, immersion suits and thermal protective aids
ETO.3. A-III/6-3.4 Apply medical first aid on board ship
ETO.4. A-III/6-CCS 3.5.4 Knowledge and ability to apply decisionmaking techniques: .1 Situation and risk assessment, .2 Identify and consider generated options, .3 Selecting course of action, .4 Evaluation of outcome effectiveness
ETO.5. A-III/6-CCS 3.6.2 Knowledge of fire prevention and ability to fight and extinguish fires

TEACHING METHODOLOGY

Plenary lectures
Case studies
The study of the whole subject will be reasoned, based on scientifically proven facts, with which there is consensus in the medical community, being not allowed "alternative" or exothermic, not scientifically endorsed.

LEARNING OBJECTIVES OF THE SUBJECT

At the end of the course the student will be able to:
Determine the probable cause, nature and severity of the most common marine injuries
Select the most appropriate treatment in each case so that the risk of death and complications is minimized



STUDY LOAD

Type	Hours	Percentage
Hours medium group	8,0	10.67
Guided activities	6,0	8.00
Self study	42,0	56.00
Hours large group	19,0	25.33

Total learning time: 75 h

CONTENTS

1. INTRODUCTION TO MARITIME MEDICINE

Description:

Concept of maritime medicine and its method of study. The disease: etiology, pathogenesis, pathophysiology, clinical, pathological anatomy, diagnosis, prognosis, therapy and prophylaxis.

Full-or-part-time: 5h

Theory classes: 2h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

2. WOUNDS, INJURIES AND OTHER ALTERATIONS BY MECHANICAL AGENTS

Description:

Treatment of wounds. Study of contusion, sprain, dislocation and bone fracture. Bleeding and shock. Motion sickness Diving accidents.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

3. THE COLD AND THE HEAT AS ETIOLOGICAL AGENTS

Description:

Burns. Freezes. Hypothermia. Heatstroke. Insolation. Thermal cramp.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

4. ACCIDENTS BY CHEMICAL AGENTS

Description:

Acute poisonings on board: Prevention and treatment. Caustications.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

5. MAIN COMMUNICABLE DISEASES OF MARITIME INTEREST

Description:

Quarantinable diseases. The International Health Regulations Naval medical and health documentation. Sexually transmitted diseases.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

6. VITAL EMERGENCIES ON BOARD

Description:

Cardiorespiratory arrest. Cardiopulmonary resuscitation. Asphyxia from drowning and hypothermia.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

7. CARDIOCIRCULATORY EMERGENCIES ON BOARD

Description:

Ischemic heart disease: Angor pectoris and acute myocardial infarction. Acute Pulmonary Edema. Hypertensive crisis. Other cardiocirculatory emergencies.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

8. MAIN EMERGENCIES OF THE RESPIRATORY SYSTEM

Description:

Alterations of the upper respiratory tract. Crisis asmatic. Pneumonia Pneumothorax. Other frequent respiratory emergencies on board.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

9. OTHER EMERGENCIES ON BOARD

Description:

Digestive system emergencies. Genitourinary system emergencies. Locomotor system emergencies. Neurological emergencies and the organs of the senses.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

10. CHRONIC DISEASES OF SPECIAL INCIDENCE IN SEA PEOPLE AND THEIR MANAGEMENT

Description:

Diabetes mellitus: Acute complications of the disease. Obesity: Study of the healthy diet on board.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

11. BIRTH AND DEATH ON BOARD

Description:

Childbirth: Assistance in the phases of dilation, expulsion and delivery. Newborn care. Death on board: Diagnosis, legal procedures and destination of the corpse.

Full-or-part-time: 4h

Theory classes: 1h

Practical classes: 1h

Guided activities: 1h

Self study : 1h

GRADING SYSTEM

1- Examination of the contents taught in class: 70% of the grade.

2- Individual work: 30% of the mark.

The re-evaluation test comprises the whole subject.

BIBLIOGRAPHY

Basic:

- Pérez Arellano, José Luis. Manual de patología general. 6a ed. Barcelona: Masson, 2006. ISBN 8445815407.
- Harrison : principios de medicina interna. 18a ed. Mexico D.F: McGraw-Hill Interamericana, 2012. ISBN 9786071507273.
- Guía de primeros auxilios para uso en caso de accidentes relacionados con mercancías peligrosas (GPA): suplemento de la Guía médica internacional de a bordo (productos químicos).. Londres: Organización marítima internacional, 1994.
- International medical guide for ships : including the ship's medicine chest. 3rd ed. Geneva: World Health Organization, 2007. ISBN 9789241547208.
- Reglamento sanitario internacional : 2005 : 58ª Asamblea Mundial de la Salud. Ginebra: Organización Mundial de la Salud, 2005.
- Instituto Social de la Marina. Guía sanitaria a bordo [on line]. Madrid: Instituto Social de la Marina, 2013 [Consultation: 12/09/2019]. Available on : <http://www.seg-social.es/wps/wcm/connect/wss/c8a69b63-3c4e-4114-89c9-2cefb9f8aec/GUIA+SANITARIA+A+BORDO+%28Ed+2013%29.pdf?MOD=AJPERES&CVID=>.
- Organització Internacional del Treball. Pautas para la aplicación de las disposiciones sobre seguridad y salud en el trabajo del Convenio sobre el trabajo marítimo, 2006 [on line]. Ginebra: Oficina Internacional de Trabajo. Departamento de Políticas Sectoriales, 2015 [Consultation: 07/11/2019]. Available on : https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/normativeinstrument/wcms_325321.pdf. ISBN 9789223294977.
- Curso de formación sanitaria específica avanzada. Madrid: Ismarina publicaciones, 2020.

Complementary:

- García Casas, J.B. Organización de botiquines a bordo. Madrid: Naval, 1986.
- Electro-technical officer. IMO model course 7.08. London: International Maritime Organization, 2014. ISBN 9789280115802.