

Bachelor's degree in Nautical Science and Maritime Transport

Section A-II/1. Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more

Function: Navigation at the operational level

Competence	Knowledge, understanding and proficiency	Asignatura
1 Plan and conduct a passage and determine position	.1 Celestial navigation	280623 Navegación astronómica (Q6)
	.2 Terrestrial and coastal navigation	280610 Navegación costera (Q3)
	.3 Electronic systems of position fixing and navigation	280617 Sistemas electrónicos de ayuda a la navegación (Q4)
	.4 Echo-sounders	280617 Sistemas electrónicos de ayuda a la navegación (Q4)
	.5 Compass- magnetic and gyro	280626 Derrotas y compases (Q6)
	.6 Steering control system	280617 Sistemas electrónicos de ayuda a la navegación (Q4)
	.7 Meteorology	280629 Meteorología y oceanografía náuticas (Q7)
2 Maintain a safe navigational watch	.1 Watchkeeping	280610 Navegación costera (Q3)
	.2 Bridge resource management	
3 Use of radar and ARPA to maintain safety of navigation	.1 Knowledge of the fundamentals of radar and automatic radar plotting aids (ARPA)	280617 Sistemas electrónicos de ayuda a la navegación (Q4)
	.2 Ability to operate and to interpret and analyse information obtained from radar, including performance and use	
	.3 Principal types of ARPA, their display characteristics, performance standards and the dangers of over-reliance on ARPA	
	.4 Ability to operate and to interpret and analyse information obtained from ARPA	

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4 Use of ECDIS to maintain the safety of navigation	.1 Knowledge of the capability and limitations of ECDIS operations	280617 Sistemas electrónicos de ayuda a la navegación (Q4) 280610 Navegación costera (Q3)
	.2 Proficiency in operation, interpretation, and analysis of information obtained from ECDIS	
5 Respond to emergencies	.1 Emergency procedures	280620 Seguridad y protección marítima (Q5) 280619 Teoría del buque y construcción naval (Q5) 280625 Maniobra y reglamentos (Q6)
6 Respond to a distress signal at sea	.1 Search and Rescue	280625 Maniobra y reglamentos (Q6) 280624 Radiocomunicaciones (Q6)
7 Use the IMO standard Marine Communication Phrases and use English in written and oral form	.1 English language	280613 Inglés técnico para la navegación (Q3)
8 Transmit and receive information by visual signalling	.1 Visual signaling	280625 Maniobra y reglamentos (Q6)
9 Manoeuvre the ship	.1 Ship manoeuvring and handling	280625 Maniobra y reglamentos (Q6)
10 Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes	.1 Cargo handling, stowage and securing	280618 Estiba (Q4)
11 Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	.1 Knowledge and ability to explain where to look for damage and defects most commonly encountered	280614 Construcción naval (Q3)
	.2 Ability to state which parts shall be inspected each time in order to cover all parts within a given period of time	
	.3 Identify those elements of the ship structure which are critical to the safety of the ship	

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Function: Controlling the operation of the ship and care for persons on board at the operational level

Competence	Knowledge, understanding and proficiency	Asignatura
12 Ensure compliance with pollution - prevention requirements	.1 Prevention of pollution of the marine environemnt and anti-pollution procedures	280621 Prevención de la contaminación y sostenibilidad (Q5)
13 Maintain seaworthiness of the ship	.1 Ship stability	280615 Teoría del buque (Q4)
	.2 Ship construction	280614 Construcción naval (Q3)
14 Prevent, control and fight fires on board	.1 Fire prevention and fire-fighting appliances	280620 Seguridad y protección marítima (Q5)
15 Operate life-saving appliances	.1 Life-saving	280620 Seguridad y protección marítima (Q5)
16 Apply medical first aid on board ship	.1 Medical aid	280612 Medicina marítima (Q3)
17 Monitor compliance with legislative requirements	.1 Basic working knowledge of the relevant IMO conventions concerning safety of life at sea, security and protection of the marine environment	280604 Legislación marítima (Q1)
		280620 Seguridad y protección marítima (Q5)
		280621 Prevención de la contaminación y sostenibilidad (Q5)
18 Application of leadership and teamworking skills	.1 Working knowledge of shipboard personnel management and training	280609 Economía marítima, gestión naviera y de los recursos humanos a bordo (Q2)
	.2 A knowledge of related intenational maritime	
	.3 Ability to apply task and workload management	
	.4 Knowledge and ability to apply effective resource management	
	.5 Knowledge and ability to apply decision-making techniques	
19 Contribute to the safety of personnel and ship	.1 Knowledge of personal survival techniques	280620 Seguridad y protección marítima (Q5)
	.2 Knowledge of fire prevention and ability to fight and extinguish fires	280620 Seguridad y protección marítima (Q5)
	.3 Knowledge of elementary first aid	280612 Medicina marítima (Q3)
	.4 Knowledge of personal safety and social responsibilities	280620 Seguridad y protección marítima (Q5)