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## Study programme "Maritime Transport - Marine Engineering"

Main attributes			
Title	Maritime Transport - Marine Engineering		
Identification code	UCN0		
Education classification code	42525		
Level and type	Professional Bachelor (First Cycle) Studies		
Higher education study field	Mechanics and Metal Processing, Heat Power Engineering, Heat Technology, and Mechanical Engineering		
Head of the study field	Marina Čerpinska		
Department responsible	Latvian Maritime Academy		
Head of the study programme	Edijs Štāls		
Professional classification code	3151 01, 3151 02		
The type of study programme	Full time, Extramural		
Language	Latvian, English		
Accreditation	16.11.2022 - 17.11.2028; Accreditation certificate No 2022/30-A		
Volume (credit points)	278.0		
Duration of studies (years)	Full time studies - 4.3; Extramural - 5,0		
Degree or/and qualification to be obtained	Professional bachelor degree in maritime transport / marine engineer		
Qualification level to be obtained	The 6th level of European Qualifications Framework (EQF) and Latvian Qualifications Framework (LQF)		
Programme prerequisites	Secondary education		
Description			
Abstract	The study programme provides first evals professional higher education in accordance with the regulations		
	on the national standard for professional higher education. The study programme shall provide for the acquisition of a sixth level vocational qualification in marine engineering corresponding to the occupational standards "Marine engineer (at the operational level)" and "Marine engineer (at the management level)", in accordance with Directive 2022/993 of the European Parliament and of the Council of 8 June 2022 on the minimum level of training of seafarers and the set of tasks, duties and responsibilities grouped in the Code to the International Convention on the Training, Certification and Watchkeeping for Seafarers, 1978 (as amended) (STCW Convention) necessary for the operation of ships, safety at sea and the protection of the environment (standards A-III/1 and A-III/2).		
Aim	To prepare skilled and internationally recognized engineer officers and maritime professionals capable of carrying out a safe engineering watch, operating, planning and managing the operation, maintenance and repair of main propulsion and auxiliary machinery, engineering systems, electrical, electronic and control systems on board ships, with due regard to the safety and security of the ship and persons on board, as well as pollution prevention.		
Tasks	<ul> <li>Study programme objectives:</li> <li>To provide knowledge of the theoretical basis and operating, planning and management principles of engineering, electrical, electronic and control systems on board ships;</li> <li>To provide knowledge and proficiency of the operation, planning and management of operation, maintenance and repair of ships' main propulsion and auxiliary machinery;</li> <li>To provide knowledge and proficiency of the operation, planning and management of operation, maintenance and repair of ships' electrical, electronic and control systems;</li> <li>To to provide knowledge end proficiency of the operation, planning and management of operation, maintenance and repair of ships' electrical, electronic and control systems;</li> <li>To teach how to solve engineering, electrical and electronic control, maintenance and repair tasks on board ships, based on practical and theoretical knowledge;</li> <li>To teach how to deal with situations related to safety management, emergency prevention and response, and environmental policy and practice, providing students with the necessary knowledge and skills;</li> <li>To teach leadership and management skills including conflict resolution, teamwork, project management and other elements of management to contribute to the development of students' management skills;</li> <li>Provide knowledge of relevant international maritime norms and standards, including IMO standards, to ensure students' understanding of international regulations and requirements;</li> <li>To strengthen students' foreign language skills to facilitate effective communication in an international maritime environment.</li> </ul>		

Learning outcomes	Graduates of the study programme are: - maintain a safe anegineering watch and plan ship operations; - able to operate, plan and monitor the operation of the ship's propulsion machinery, auxiliary machinery and engineering systems; - able to operate, plan and monitor the operation of the ship's electrical, electronic and automatic control systems; - able to monitor fuel, oil and ballast pumping operations; - able to detect and identify the cause of machinery and system malfunctions and correct faults; - maintain seaworthiness of the ship and control trim and stress of the ship; - able to use the ship's internal communication systems; - able to use the ship's internal communication systems; - able to plan, perform and supervise the technical maintenance and repair of the ship's electrical, electronic and control systems; - able to plan, perform and supervise the maintenance and repair of the automatic control systems of the ship's main propulsion machinery and auxiliary machinery; - able to plan, perform and supervise the technical maintenance and repair of ship's deck machinery and cargo handling equipment; - able to plan, perform and supervise the technical maintenance and repair of ship's deck machinery and cargo handling equipment; - able to comply with environmental pollution prevention requirements; - able to prevent, control and extinguish fire on board; - able to provide first aid on board; - able to monitor and control the fulfilment of the requirements of regulatory acts; - able to provide first aid on board; - able to perform the duties of an engineer officer in accordance with the regulatory acts, standards in the maritime transport sector and their amendments; - able to use the national language; - able to use the national language; - able to use the national anguage; - able to suce the national and communication technologies; - able to use the periori and communication technologies; - able to comply with the norms of labour legislation; - understands the principles o
Final/state examination procedure, assessment	<ul> <li>Final examination consisting of components:</li> <li>development and defence of a diploma thesis (diploma project) or bachelor's thesis;</li> <li>maritime English language test;</li> <li>qualification test in accordance with the STCW Convention and the guidelines of the Registry of Seamen of the Maritime Administration of Latvia.</li> </ul>
Description of the future employment	The ship's engineer officer is employed on board merchant vessels (oil tankers, liquefied gas tankers, passenger ships, container ships, bulk carriers, reefer ships, etc.), as well as on inland water vessels, fishing vessels, offshore vessels and other vessels without the limitation of the total power of the main engines, as well as plans, organizes and carries out the operation, maintenance and repair of the ship's main propulsion and auxiliary machinery, electrical, electronic and automatic control systems, supervises and organizes the work of other employees in the engine rooms, complies with the requirements of labour protection, shipping safety, environmental protection, good work practices and binding national and international regulations. Depending on the experience, a ship's engineer officer can also work in other related industries (shore-based ship repair companies, ship technical management companies, in logistics and other industries). A ship's engineer officer can work on Latvian flagged or other ships in international shipping, provided that his professional competences, in accordance with the requirements set out in the regulations on the certification of seafarers, meet the requirements of the standard A-III/1 and/or A-III/2 of the Code to the STCW Convention.
Special enrollment requirements	Pass medical examination of seafarers in accordance with the requirements of Cabinet Regulation No. 273 "Regulations regarding medical fitness of seafarers for work on a ship" adopted 3 June 2014.
Opportunity to continue studies	Continue studies in a master's study programme by fulfilling the relevant admission requirements

Courses			
No	Code	Name	Credit points
Α		Compulsory Study Courses	191.0
A1		General Education Study Courses	30.0
1	JA0137	Psychology of Human Relations in the Maritime Environment	3.0
2	JA0044	Maritime English	13.0
3	JA0046	Maritime Economics	2.0
4	JA0008	Maritime Economics (course project)	1.0
5	JA0122	History of Latvian Shipping	3.0
6	JA0134	Engine Room Resource Management	3.0
7	JA0058	Sport (Swimming)	2.0
8	JA0126	Philosophy of Science	3.0
A.2		Field-Specific Theoretical Basic and IT Study Courses	69.0
1	JA0040	Civil Protection	2.0
2	JA0142	Physics	6.0
3	JA0030	Engineering Design and Descriptive Geometry	4.0
4	JA0020	Engineering Mechanics for Marine Engineers	13.0
5	JA0025	Engineering Mechanics for Marine Engineers (course project)	1.0
6	JA0139	Maritime Law	3.0
7	JA0138	Shipbuilding Materials	9.0
8	IA0107	Ship Computer Networks and Cyber Security	3.0
9	IA0056	Ouality Management in Maritime Transport	2.0
10	IA0133	Annied Chemistry	3.0
11	IA0057	Mathematics	14.0
12	IA0131	Thermodynamics and Heat Transfer	9.0
Δ 3	5110151	Field-Specific Professional Study Courses	92.0
1	140135	Labour Safety and Legislation on Shins	3.0
2	IA0151	Maritime English for Engineers	12.0
3	IA0136	Maritime Safety	6.0
4	IA0147	Shin Diesel Engines and Turbines	12.0
5	140048	Ship Diesel Engines and Turbines (course project)	2.0
6	IA0146	Marine Electrical Equipment	6.0
7	140020	Marine Electrical Equipment (course project)	1.0
8	JA002)	Marine Electrical Engineering and Electronics	9.0
0	IA0021	Marine Licentear Engineering and Licentomes	10.0
10	JA0021	Marine Auxiliaries and Systems	2.0
10	JA0030	Shin Denoir Technology	2.0
11	JA0144	Ship Kepan Technology	0.0
12	JA0038	Ship Construction and Theory	1.0
13	JA0015	Ship Construction and Theory (course project)	4.0
14	JA0032	Marine Automation and Control Systems	2.0
15	JA0149	Marine Automation and Control Systems	0.0
10	JA0033	Marine Automation and Control Systems (course project)	2.0
1/	JA0132	Water Fredered Lebricente Menocement en David	3.0
18	JA0141	Water, Fuels and Luoricants Management on Board	3.0
19	JA0059		2.0
		Free Elective Study Courses	9.0
	14.01.40		57.0
	JA0140	Snippoard works and worksnop Practice	9.0
2	JA0148	Seagoing Practice	33.0
3	JA0130	Engine Koom Simulator	3.0
4	JA0150	Ship Repair Practice	12.0
E	T + 00	Final Examination	21.0
	JA0045	Maritime English	2.0
2	JA0062	Qualification Examination in Speciality	2.0
3	JA0145	Diploma Project	17.0