RĪGAS TEHNISKĀ UNIVERSITĀTE

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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 ensures the acquisition of the professional qualification of Senior/Second mechanic on ships with a main engine power of 3000 kW and more after obtaining the relevant length of service in the position of Engineer on Watch on ships with a main engine power of 750 kW and more, which complies with the European Parliament and Council Directive 2022/993 of June 8, 2022 on the minimum level of training for seafarers and the standards of the 1978 International Convention on the Training and Certification of Seafarers and Watchkeeping (as amended) (STCW).
Aim	To prepare a high-quality internationally recognized management-level specialist in the maritime industry who is able to carry out the management and operation of ship propulsion and associated engineering systems mechanisms, electrical, electronic and control systems on ships without limitation main propulsion machinery power, as well as able to perform technical maintenance and repair, taking care on ship and people safety and environmental protection. As well to develope skills for the operation related to the design, installation, improvement and creation of innovative solutions of the ship's power, mechanical, electrical and electronic equipment, devices and machines.
Tasks	The tasks of the study programme: - to develop students' abilities to understand and analyse the basics of ship engineering, as well as fundamental knowledge about the construction of a ship, its engineering equipment and systems, as well as development trends in this field; - to provide students with the opportunity to learn various engineering technologies and software to analyse and model ship equipment and systems; - to develop the ability to study and evaluate the engineering technologies used in shipbuilding, as well as the impact of their use on the environment and people; - to ensure that students learn and learn to use a variety of instruments, tools and technologies to perform engineering analyses and assessments for repairs; - to develop the business and management skills required to work as engineers in the marine engineering industry or to manage a company in the marine engineering field; - to develop skills that include the ability to plan, organize and manage projects, as well as communicate effectively with other professionals and managers.
Learning outcomes	Graduates of the study programme are: - able to compete in changing socio-economic conditions and the international labour market; - able to choose and use information technologies for performing work duties, research and lifelong learning, as well as acquiring, creating and sharing digital content; - able to develop into a mentally and physically developed, free, responsible and creative personality; - able to operate the ship's mechanisms and engineering systems; - able to operate the ship's electrical, electronic and control systems; - able to perform technical maintenance and repair of mechanisms and engineering systems on ships; - able to plan, organize and manage the operation of mechanisms and engineering systems; - able to plan, organize and manage the operation of the ship's electrical, electronic and control systems; - able to plan, organize and manage the technical maintenance and repair of mechanisms and engineering systems on ships; - able to take care of the safety of the ship and people and environmental protection; - able to manage concern for the safety of the ship and people and the protection of the environment.

Final/state examination procedure, assessment	Final examination component is: - development and defence of a diploma thesis (diploma project) or bachelor's thesis; - maritime English language test; - qualification test in accordance with the STCW and the methodology of the Latvian Maritime Administration Seafarers' Register.
Description of the future employment	Marine engineer (management level) – Senior/Second Engineer on ships with a main engine power of 3000 kW and more on a seagoing ship can work on ships of Latvia, the European Union or other countries in international shipping. Can initially work as watch engineer (STCW A-III/1) and subsequently as second/chief engineer officer (STCW A-III/2 or A-III/3) on marine transport vessels (oil tankers, LPG tankers, passenger ships, container ships, bulk carriers, reefer ships, etc.), as well as on inland vessels, offshore vessels, fishing vessels and other vessels without restrictions on the power of the main engine. In addition, according to experience, it is possible to work in maritime, shipbuilding and repair, logistics and other industries that require an understanding of the operation and supervision of engineering systems and mechanisms.
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
A		**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 Economy	2.0
4	JA0008	Maritime Economy (study work)	1.0
5	JA0122	Latvian Shipping History	3.0
6	JA0134	Engine Resource Management	3.0
7	JA0058	Sports (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 Graphics and Applied Geometry	4.0
4	JA0020	Mechanics for Marine Engineers	13.0
5	JA0025	Machine Component Design (study work)	1.0
6	JA0139	The Maritime Law	3.0
7	JA0138	Shipbuilding Materials	9.0
8	JA0107	Ship Computer Networks and Cyber Security	3.0
9	JA0056	Quality Management in Maritime Transport	2.0
10	JA0133	Applied Chemistry	3.0
11	JA0057	Mathematics	14.0
12	JA0131	Heat Transfer and Thermodynamics	9.0
A.3		**Field-Specific Professional Study Courses**	**92.0**
1	JA0135	Occupational Safety and Legislation Onboard	3.0
2	JA0151	Maritime English for Marine Engineers	12.0
3	JA0136	Maritime Safety	6.0
4	JA0147	Marine Diesels Engines and Turbines	12.0
5	JA0048	Marine Diesels Engines and Turbines	2.0
6	JA0146	Ship Electrical Equipment	6.0
7	JA0029	Ship Electrical Equipment (course work)	1.0
8	JA0143	Marine Electrotechnology and Electronics	9.0
9	JA0021	Ship's Auxiliary Machinery and Associated Systems	10.0
10	JA0050	Ship's Auxiliary Machinery and Associated Systems (study work)	2.0
11	JA0144	Shipe Repair Technology	6.0
12	JA0038	Ship Technical Management	1.0
13	JA0013	Ship Construction and Theory	4.0
14	JA0052	Ship Construction and Theory (course work)	2.0
15	JA0149	Ship Automation Systems	6.0
16	JA0053	Ship Automation Systems (study work)	2.0
17	JA0132	Marine Steam Boilers	3.0
18	JA0141	Use of Water, Fule and Oil	3.0
19	JA0059	Prevention of Pollution at Sea	2.0
C		**Free Elective Study Courses**	**9.0**
D		**Practical Placement**	**57.0**
1	JA0140	Shipboard Works and Workshop Practice	9.0
2	JA0148	Onboard Training	33.0
3	JA0130	Engine Room Simulator	3.0
4	JA0150	Ships Repair Practice	12.0
E		**Final Examination**	**21.0**
1	JA0045	Maritime English (Graduation Test)	2.0
2	JA0062	Qualification Examination in the Speciality	2.0
3	JA0145	Diploma Project	18.0