

Code: 26,,Marine power plants

ECTScredits: 5	Number of hours per week: “2+0+1
Forms of assessments:Exam	Types of assessment: Exam - written
Department, providinginstruction on the discipline:	
Department: <i>NAVAL ARCHITECTURE AND MARINE ENGINEERING</i> <i>FACULTY OF SHIPBUILDING</i>	

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Annotation: The subject Marine power plants exists in the education plan for Bachelor’s degree of specialty Shipbuilding and Naval Techniques. During the course the education is focused on structure, work principles and main rules for exploitation of main ship and buster engines, machinery and equipment of marine power plants. Subject of training are ship diesel engines, steam and gas turbines, ships boilers, pumps, compressors, fans, separators, filters and heat exchangers. In detail the principles of common work of these elements as parts of a machine compartment are treated. The main power and economic principles of work of the systems are of interest. During laboratory exercises the students are involved in basic principles of ship propulsion complex functioning. The problems connected with modern requirements concerning systems covering safety, environment and IMO requirements are of special interest.

Main issues of the syllabus content:

- Ship diesel engines
- Ship steam and gas turbines
- Ship heat exchangers and separators
- Buster systems
- Systems, parts and Marine Power Complex
- Marine Power Complex

Content presentation: Lectures and laboratory exercises. The pars are connected with composition, theory and exploitation of marine power systems. Part of the exercises are performed in “Ship Machine Compartment Training Compex” of TU-Varna.