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| Discipline | MARINE POWER PLANTS code29 5 semester – /winter / | |
| Specialty | NAVAL ARCHITECTURE and MARINE TECHNOLOGY | |
| ECTS credits: **6** | Form of assessment: EXAM | |
| Lecturer | Assoc. Prof. Galina Ilieva<br>Room 406M<br>Phone: +359 52383 524<br>E-mail: galina.ilieva@tu-varna.bg | ☺ |
| Department | Naval architecture, Marine engineering | |
| Faculty | SHIPBUILDING | |

Learning objectives:

Students are trained to acquire knowledge in design, operation of all marine machinery and systems, such as: engines, turbines, compressors, pumps, boilers, heat exchangers, refrigerators, etc.
Further, all those elements, united in various specialized systems and marine power plants, marine propulsion systems are explored.
Students learn how to design and calculate main exploitation parameters of marine machinery.

CONTENTS:

| Training Area | Lectures | Lab sessions |
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| Marine power plants. Main parameters and equations | 6 | 2 |
| Marine diesel engines and aux. systems | 5 | 2 |
| Marine boilers and aux. systems | 2 | 2 |
| Marine steam and gas turbines. Compressors and fans.<br>Combined turbine systems and propulsion. | 5 | 2 |
| Marine auxialliary machines and mechanisms: | 4 | 3 |
| Marine air-conditioning, refrigeration systems. Fresh water systems | 4 | 2 |
| Propulsion systems | 4 | 2 |
| TOTAL: 45 hours | **30** | **15** |