Discipline	MARINE STEAM and GAS TURBINES code: 37	2nd Semester Third Year
Specialty	MARINE ENGINEERING	
ECTS credits: 6	Form of assessment: EXAM	
Lecturer	Assoc. prof. Galina Ilieva Room 406M Phone: +359 52 383 524 E-mail: .galina.ilieva@tu-varna.bg	
Department	Department of Naval Architecture, Marine Engineering	
Faculty	Faculty of Shipbuilding	

Learning objectives:

/ANNOTATION/

The aim of the course is to introduce students to the basic principles of design, functioning, exploitation of marine steam and gas turbines. The course provides knowledge in turbine cycles and plants, nominal and variable regimes, turbochargers, etc.

Design project is included in the course – it aims to calculate main parameters of steam turbine and choose appropriate blades design.

The syllabus is developed in accordance with the requirements of IMO Model Courses 7.04

.

CONTENTS:

Theory of thermal turbomachinery

Construction of turbines – main elements, function, materials

Marine steam, gas, combines turbine power plants

Explotation of steam and gas turbines

Governance of turbines

Construction of compressors and turbochargers – elements, exploitation, loading regimes, problems and how to overcome them

Total: 30 lectures and 15 exercises as well as 15 hours design project. ECTS credits: 6