Code: 18 „Hydrodynamics of ships”

ECTS credits: 6	Number of hours per week: 2+0+2
Forms of assessments: Exam	Types of assessment: Exam - test/quiz

Department, providing instruction on the discipline:

Department: *NAVAL ARCHITECTURE AND MARINE ENGINEERING*
FACULTY OF SHIPBUILDING

Lecturer: Assoc. Prof. Dr. Ivan Ivanov

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Annotation:

This discipline is fundamental for the students in Naval Architecture and Marine Technology. It covers the basics of fluid mechanics and sea dynamics, giving basic knowledge for other disciplines as stability and motions of ships, strength, piping systems, etc.

Main issues of the syllabus content:

- Fluid properties and fluid motion equations
- Hydrostatics
- Kinematics of fluids
- Dynamics of ideal fluids
- Dynamics of viscous fluids
- Boundary layers
- Wing theory
- Wave theory

Content presentation:

Lectures describe the physics of fluid phenomena and the mathematical models for their description.
Laboratory exercises demonstrate practically the fluid phenomena and the experimental methods of their investigation.