

Code: 30,,Ship hydraulic machinery”

ECTScredits: 4	Number of hours per week: 2+0+1
Forms of assessments:Exam	Types of assessment: Exam - written with oral discussion
Department, providinginstruction on the discipline: Department: <i>THERMAL ENGINEERING</i> <i>FACULTY OF SHIPBUILDING</i>	

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**Annotation:**

The course objective is to give the students the theoretical understanding, basic knowledge about ship hydraulic machines constructions, principle of operation and performance changing during operation.

The course provides essential background and fundamental concepts for operation of ship pumps, fans, centrifugal separators and hydro-motors.

**Main issues of the syllabus content:**

- General notes about ship hydraulic machinery
- Positive displacement pumps
- Dynamic pumps
- Hydraulic motors
- Fans
- Centrifuge separator

**Content presentation:**

The course topics are presented using posters, slides, digital projector and specialized CFD software for flow visualization. The calculations are performed with computer connected to digital projector.

Laboratory exercises are conducted in specialized laboratory of ship hydraulic machinery. During laboratory classes are measured important machinery parameters as pressure and capacity. The flow parameters distribution is measured with flow meter, manometers, vacuum gauges, Pitot tube, Prandtl tube, and different types of anemometers.