

# **Budapest University of Technology and Economics**

# Faculty of Transportation Engineering and Vehicle Enginee

1. Subject name	Ship design PhD				
2. Subject name in Hungarian	Hajótervezés PhD				
3. Code	BMEKORHD011	4. Evaluation type	exam grade	5. Credits	2
6. Weekly contact hours	2 (0) Lecture	0 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Specific course		
9. Working hours for fulfilling the requirements of the subject					60
Contact hours	28	Preparation for seminars	10	Homework	12
Reading written materials	4	Midterm preparation	0	Exam preparation	6
10. Department	Department of Aeronautics and Naval Architectures				
11. Responsible lecturer	Dr. Simongáti Győző				
12. Lecturers	Dr. Simongáti Győző, Dr. Hargitai L. Csaba				
13. Prerequisites	recommended: BMEKOVRM615 - Ship design				
14. Description of	lectures				

The subject is able to evaluate independently the sub-tasks of ship design (definition of main dimensions, stability calculation, resistance calculation, drive design, maneuverability, structural design, etc.). They will be able to establish novel relationships in a deeper context of ship design and will be familiar with the scientific dilemmas, problems and current solutions to each subtask.

# 15. Description of practices

#### 16. Description of labortory practices

#### 17. Learning outcomes

### A. Knowledge

 know and understand the up to date problematics of stability calculations, problems of determination of thrust deduction factor and wake fraction, ship motion simulation methods, prediction methods for fuel consumption, new, modern application of CFD in ship design.

#### B. Skills

• able to understand and use the results of scientific publications, bale to use others knowledge for his/her own research project, able to write own publication.

#### C. Attitudes

• interested, responsive, independent, take care for the deadlines.

# D. Autonomy and Responsibility

# 18. Requirements, way to determine a grade (obtain a signature)

The pre-condition of the exam is the submission and acception of the own work. The exam is oral.

#### 19. Opportunity for repeat/retake and delayed completion

#### according to the TVSZ

#### 20. Learning materials

- 1. Hajók Kézikönyv
- 2. Dr. Benedek Z. Hajók 1-3.
- 3. D. J. Eyres Ship constuction
- 4. Young Bay Marine structural design
- 5. Dr. Deseő Z. Hajótestek szilárdsági kérdései

6. J S Carlton - Marine Propellers and Propulsion, Second Edition, 2007

7. Schneekluth, Bertram: Ship design for efficiency and economy. Butterworth Heinemann, 1998.

**Effective date** 

27 November 2019 This Subject Datasheet is valid for

Inactive courses