



Budapest University of Technology and Economics

Faculty of Transportation Engineering and Vehicle Engineering

1. Subject name	Ship design				
2. Subject name in Hungarian	Hajótervezés				
3. Code	BMEKOVRM615	4. Evaluation type	exam grade	5. Credits	5
6. Weekly contact hours	2 (10) Lecture	2 (11) Practice	0 (0) Lab		
7. Curriculum	Vehicle Engineering MSc (J)	8. Role	Specialization (sp) at Vehicle Engineering MSc (J)		
9. Working hours for fulfilling the requirements of the subject					150
Contact hours	56	Preparation for seminars	12	Homework	40
Reading written materials	22	Midterm preparation	0	Exam preparation	20
10. Department	Department of Aeronautics and Naval Architectures				
11. Responsible lecturer	Dr. Simongáti Győző				
12. Lecturers	Dr. Simongáti Győző				
13. Prerequisites					
14. Description of lectures					
Ship design methods. Design spiral. Conceptual design. Economical aspects of ship design. Determination of main dimensions. Weight estimation. Dedsign of Lines. Freeboard and subdivision. Design of propulsion systems, selection of machinery. Tender documentation.					
15. Description of practices					
Worked examples for supporting the theory.					
16. Description of labortory practices					
17. Learning outcomes					
A. Knowledge					
<ul style="list-style-type: none">• know and understand the theory and practice of merchant ship design• know the input parameters and boundary conditions, and the calculations and procedures for the preliminary design					
B. Skills					
<ul style="list-style-type: none">• based on the knowledge above the student is able to determine the main dimensions of a vessel for a given generally described scope of work• able to prepare a general arangement drawing, preliminary technical description, lines plan and other drawings repateed to preliminary design• able to use the Internet and CAD software for his/her work					
C. Attitudes					
<ul style="list-style-type: none">• interested, responsive, take care for the deadlines					
D. Autonomy and Responsibility					
<ul style="list-style-type: none">• the student makes responsible decisions• asks for the professional opinions of others and takes care of the challenges responsibly					
18. Requirements, way to determine a grade (obtain a signature)					
Requirements for signature: 1 semestrial home work 1 exam measuring the theoretical knowledge, the final result is the average of the parts					
19. Opportunity for repeat/retake and delayed completion					
Second exam and delayed submission of the homework					
20. Learning materials					
Péter Pál Lehel: Hajótervezés (in Hungarian) Watson: Practical Ship Design (Elsevier, 1998)					

Papanikolaou: Ship Design-Methodologies of Preliminary Design (Springer, 2014)
case studies

Effective date	10 October 2019	This Subject Datasheet is valid for	Inactive courses
----------------	-----------------	-------------------------------------	------------------