

Course title	Code No.
Introduction to confined water safety of navigation	

Semester	Course status (mandatory or optional)
First	Optional

Lecturer(s)	E-Mail
Mate Baric	mbaric@unizd.hr

Contact hours per week	Credit Points	Workload		
			Presence	Self-study
2+1	5	Lecture	30	60
		Seminar	15	30
		Practice		
		Laboratory		

Media	Teaching aids
White and smart board, projector	The course is comprised, lectures, calculations, take home assignments (group project) and assignment presentations.

Enrolment requirements and entry competences required for the course
Proficiency in English and computer skills.

Conditions for permission to take the exam
Successfully presented seminar paper and oral exam

Assessment methods and criteria
<p>Assessment is carried out by means of evaluation of:</p> <p>Participation (20%) Group project (30%) Oral exam (50%)</p> <p>Grades: Insufficient 0-50% Sufficient 51%-69% Good 70%-79%</p>

Very good 80%-89%
Excellent 90%-100%

Learning outcomes at the programme level to which the course contributes

To understand basic terms of ship maneuvering systems, ship and fairway dimensions.

To be able to use appropriate methodology of ship safety during navigation in confined waters fairways to avoid grounding.

To be able to analyse fairway depth parameters to ensure adequate level of ship safety during confined water navigation.

To be able to analyse fairway width parameters to ensure adequate level of ship safety during confined water navigation.

Learning Outcomes

Professional competence

Key skills

1. To define criteria for determining fairway dimensions

2. To use risk assessment methods involved with fairway dimensions and ship safety

3. To identify fairway depth parameters

4. To select appropriate method for determining fairway depth

5. To identify fairway width parameters

6. To select appropriate method for determining fairway width

Communication in English language, familiarization with basic fairway and ship elements

An understanding ship motions during navigation in confined waters

Sense of safety criteria for ship during navigation in fairway limited with depth and width.

Applicability in other courses/programs

This course is suitable for study programs dealing with management of shipping companies.

Content

1. Introduction - basic elements involved in subject matter
2. Criteria for determining fairway and maneuvering areas dimensions
3. Risk assessment involved with fairway width
4. Ship - fairway interaction forces
5. Determining fairway depth - Water level, Static draft, Dynamic draft
6. Determining fairway depth - Dynamic draft, Probability
7. Determining fairway width methods - One way fairway - PIANC
8. Determining fairway width methods - One way fairway - ROM
9. Determining fairway width methods - One way fairway - MLIT
10. Determining fairway width methods - Two way fairway - PIANC
11. Determining fairway width methods - Two way fairway - ROM
12. Determining fairway width methods - Two way fairway - MLIT
13. Students assignment presentation
14. Students assignment presentation
15. Exam

Literature

Essential:

- Harbour approach channels design guidelines, PIANC, Report No. 121-2014.
- ROM (Puerto Del Estado) (2007): Recommendations for Designing the Maritime Configuration of Ports, Approach Channels and Harbour Basins. ROM 3.1-99. Spain: CEDEX.
- Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan (2009): Technical Standards and Commentaries for Port and Harbour Facilities in Japan, OCDE.

Amendment Log

Version No.:	Date:	Changes:	Name: