



## TECHNICAL UNIVERSITY OF VARNA

Ratified by:  
Rector.....

/Prof. Rosen Vasilev, DSc/

### CURRICULUM

Professional orientation: **TRANSPORT, NAVIGATION AND AVIATION**

Educational and qualification degree: **MASTER**

Programme: **NAVAL ARCHITECTURE AND MARINE TECHNOLOGY**

Professional qualification: **MASTER - ENGINEER**

Mode of study: **FULL - TIME**

Length of study: **1,5 years / 3 semesters**

For holders of educational and qualificational degree "Bachelor" in speciality "Naval Architecture and Marine Technology"

Number	Subject Name	Forms of assessment				Weekly auditorium load						Unsupervised load	Whole load of students	ECTS credits
		Exams	Inter-semester Evaluation	Course project	Accepted	Lectures	Seminars			Laboratory Exercises	Total load			
							Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Numerical Methods and Mathematical Statistics	*				30				15	45	110	155	6
2	Finite Element Method in Shipbuilding	*				15			15	15	45	110	155	6
3	<i>Optional Subject</i>	*				30			15	15	60	100	160	6
a	Experimental Fluid Dynamics (EFD)													
b	Propulsion of Speed Crafts													
4	<i>Optional Subject</i>	*				30				15	45	90	135	5
a	Computer On-board Systems													
b	Metamodeling at Design of Ships and Marine Equipment													
5	Specialized English Language		*				30				30	30	60	2
6	<i>Optional Subject</i>	*				30			15	15	60	90	150	5
a	Power Plants of Marine Structures													
b	Design of Marine Piping Systems													
<b>Total for the 1 semester:</b>		<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>30</b>	<b>0</b>	<b>45</b>	<b>75</b>	<b>285</b>	<b>530</b>	<b>815</b>	<b>30</b>
7	Fundamentals of Computational Fluid Dynamics	*				15			15	15	45	90	135	5
8	<i>Optional Subject</i>	*				30			15	15	60	100	160	6
a	Design of Small Crafts													
b	Design of Specialized Vessels and Marine Structures													
9	Shipbuilding and Ship Repair Production Process		*			30	15				45	75	120	4
10	Industrial Management	*				30	15				45	75	120	4
11	<i>Optional Subject</i>	*				30				15	45	90	135	5
a	Small Craft's Constructing Technology													
b	Offshore Ships and Structures													
12	CAD/CAE in Naval Architecture and Marine Technolog	*				15			15	30	60	100	160	6
<b>Total for the 2 semester:</b>		<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>150</b>	<b>30</b>	<b>0</b>	<b>45</b>	<b>75</b>	<b>300</b>	<b>530</b>	<b>830</b>	<b>30</b>

Number	Subject Name	Forms of assessment				Weekly auditorium load						Unsupervised load	Whole load of students	ECTS credits
		Exams	Inter-semester Evaluation	Course project	Accepted	Lectures	Seminars			Laboratory Exercises	Total load			
							Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
12	Pre-graduation Practice				*						0	30	30	1
<b>Total for the 3 semester:</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>30</b>	<b>1</b>
<b>Totals for the whole course of education</b>		<b>10</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>285</b>	<b>60</b>	<b>0</b>	<b>90</b>	<b>150</b>	<b>585</b>	<b>1090</b>	<b>1675</b>	<b>61</b>
<b>Facultative Subjects</b>														

Types of graduation	Semester	Unsupervised load	ECTS credits
Preparation of Diploma Thesis	<b>3</b>	<b>450</b>	<b>15</b>
Defense of Diploma Thesis			

**Note:**

The curriculum is valid for the training in Bulgarian and English

**Approved by the Academic Board of TU-Varna:**

Protocol № 30 / 23.04.2018

Modified with Protocols

**Valid from 2018/2019 academic year**

The weekly plan of the lessons is fixed according to the Academic Board "Structure of the Learning Process" adopted for the current academic year.

Head of Department:

/Assoc. Prof. I. Kostova, PhD/

Dean of Faculty:

/Assoc. Prof. I. Hadzhidimov, PhD/