



TECHNICAL UNIVERSITY OF VARNA

Ratified by:

Rector:.....

/Prof. Ventsislav Valchev, PhD/

CURRICULUM

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

Educational and qualification degree: **BACHELOR**

Program: **NAVAL ARCHITECTURE AND MARINE TECHNOLOGY**

Professional qualification: **MECHANICAL ENGINEER**

Form of study: **FULL - TIME**

Term of study: **4 YEARS / 8 SEMESTERS**

Number	Subject name	Types of term control				Auditorium load						Unsupervised load	Total work hours	ECTS credits
		Examination	Progressive assessment	Course project	Approved	Lectures	Seminars			Laboratories	Total load			
							Seminar exercises	Course project	Course work					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Mathematics, part 1	*				30	45				75	135	210	8
2	Physics	*				30	15			15	60	120	180	7
3	Technical Documentation		*			15	30		15		60	150	210	8
4	General Arrangement of Ships		*				30				30	90	120	4
5	English, part 1				*		30				30	30	60	2
6	Optional Subject				*									
a	Specialized Sport Activities, part 1											30	30	1
b	Adapted Physical Activity*													
Total for the 1 semester:		2	2	0	2	75	150	0	15	15	255	555	810	30
7	Mathematics, part 2	*				30	45				75	135	210	8
8	Industrial Chemistry	*				30				15	45	75	120	4
9	Material Science and Technology	*				30				30	60	75	135	5
10	Technical Mechanics	*				30				30	60	75	135	5
11	Electrical Engineering and Electronics		*			30				30	60	75	135	5
12	English, part 2		*				30				30	30	60	2
13	Optional Subject				*									
a	Specialized Sport Activities, part 2											30	30	1
b	Adapted Physical Activity*					(30)	(15)				(45)	(75)	(120)	(4)
14	Introduction Practice				*							30	30	1
Total for the 2 semester:		4	2	0	2	150	75	0	0	105	330	525	855	31

Number	Subject name	Types of term control				Auditorium load						Unsupervised load	Total work hours	ECTS credits
		Examination	Progressive assessment	Course project	Approved	Lectures	Seminars			Laboratories	Total load			
							Seminar exercises	Course project	Course work					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	Fluid Mechanics	*				30				15	45	60	105	4
16	Strength of Materials	*				30	15			30	75	105	180	7
17	Computer Science and Computer Technology		*			15				30	45	120	165	6
18	Graphical Documentation in Naval Architecture		*			30	15		15	30	90	90	180	7
19	English, part 3		*				30				30	30	60	2
20	Optional Subject				*									
a	Specialized Sport Activities, part 3											30	30	1
b	Adapted Physical Activity*													
21	Practical Training, part 1				*							90	90	3
Total for the 3 semester:		2	3	0	2	105	60	0	15	105	285	525	810	30
22	Thermodynamics and Heat Transfer	*				30				15	45	90	135	5
23	Machine Elements	*				30			15	15	60	105	165	6
24	Ship Hydrodynamics	*				30				15	45	90	135	5
25	Classification Norms and Documentation	*				30				30	60	105	165	6
26	Statics and Dynamics of Ship, part 1		*			30			15	15	60	105	165	6
27	English, part 4				*		30				30	30	60	2
28	Optional Subject				*									
a	Specialized Sport Activities, part 4											30	30	1
b	Adapted Physical Activity*													
Total for the 4 semester:		4	1	0	2	150	30	0	30	90	300	555	855	31
29	Ship Systems and Devices	*				30			15	15	60	105	165	6
30	Structure and Strength of Ships, part 1	*				30				30	60	75	135	5
31	Strength of Ships and Propulsors	*				30				15	45	75	120	4
32	Strength of Ships and Propulsors, project			*				30			30	75	105	4
33	Welding of Marine Structures		*			30			15	15	60	60	120	4
34	English Language - specialized, part 1		*				30				30	30	60	2
35	Optional Subject				*		30				30	30	60	2
a	Team Management													
b	Management of the Industrial Enterprise													
36	Practical Training, part 2				*							90	90	3
Total for the 5 semester:		3	2	1	2	120	60	30	30	75	315	540	855	30
37	Architecture of Ships and Yachts	*				30			15	15	60	105	165	6
38	Statics and Dynamics of Ship, part 2	*				30			15	15	60	105	165	6
39	Structure and Strength of Ships, part 2	*				30				30	60	105	165	6
40	Structure and Strength of Ships, project			*				30			30	90	120	4
41	Technical Safety and Control of Environmental Effects		*			30	15				45	75	120	4

Number	Subject name	Types of term control				Auditorium load							Unsupervised load	Total work hours	ECTS credits
		Examination	Progressive assessment	Course project	Approved	Lectures	Seminars			Laboratories	Total load				
							Seminar exercises	Course project	Course work						
3	4	5	6	7	8	9	10	11	12	13	14	15			
1	2														
42	English Language - specialized, part 2		*				30				30	30	60	2	
43	Specialized Practice				*							60	60	2	
Total for the 6 semester:		3	2	1	1	120	45	30	30	60	285	570	855	30	
44	Ship Design	*				30	15			30	75	135	210	8	
45	Ship Power Plants	*				30				15	45	90	135	5	
46	Technology and Organization for Construction of Ships	*				30	15			15	60	120	180	7	
47	Technology and Organization for Construction of Ships, project			*				30			30	90	120	4	
48	English Language - specialized, part 3		*				30				30	30	60	2	
49	Optional Subject				*	15	15				30	75	105	4	
a	Communication and Presentation														
b	Philosophy														
Total for the 7 semester:		3	1	1	1	105	75	30	0	60	270	540	810	30	
50	Ship Repair Technology	*				30			15	30	75	135	210	8	
51	3D Ship Design Systems	*				30	15		15	15	75	135	210	8	
52	Ship Design, project			*				30			30	180	210	8	
53	English Language - specialized, part 4		*				30				30	90	120	4	
Total for the 8 semester:		2	1	1	0	60	45	30	30	45	210	540	750	28	
Totals for the whole course of education															
		23	14	4	12	885	540	120	150	555	2250	4350	6600	240	
Facultative Subjects															
1	Engineering Ethics				6	15	30				45	55	100	4	
2	Wasteless Technologies and Life Cycle of Materials				8	15				30	45	55	100	4	
3	Intellectual Property Law				8	15	15				30	60	90	3	

Types of graduation	Semester	Unsupervised load	ECTS credits
Preparation of Diploma Thesis / Preparation for State Examination	8	300	10
Defence of Diploma Thesis / State Examination			
State Examination in English			

Note:

1. The curriculum is valid for teaching in Bulgarian and English language.

2.* The discipline "Adapted Physical Activity" is an alternative to "Specialized Sport Activities", it is studied in the second semester and is intended for students who cannot do sports for health reasons.

Accepted from AU with:

Protocol No 17 / 01.06.2020, № 31 / 29.03.2021

Modified with Protocols No:62/27.02.2023

Valid from the 2022/2023 academic year.

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

Head of Department:

/ Assoc. Prof. Ch. Pirovsky, PhD /

Dean of Faculty:

/ Assoc. Prof. I. Hadzhidimov, PhD /