TECHNICAL UNIVERSITY OF VARNA



Ratified by:

Rector of TU-Varna:

/ Prof. PhD Valchev V. /

CURRICULUM

Proffesional orientation: Transport, Navigation and Aviation

Program: Naval Architecture and Marine Technology

Proffesional qualification: **Mechanical Engineer** Educational and qualificational degree: **Bachelor**

Form of study: **Full - Time**

Term of study: 4 years / 8 semesters

N	Subject Name	Ту		of te	rm	3	Seme	ster a	auditori ad	um	Unsuper	Total work hours	ECTS credits
No	Subject Name	Е	PA	СР	A	L	S	L	CP CPR	Total	vised load		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Higher Mathematics, part 1	1				30		30		60	135	195	7
2	Computer Technologies		1			15		30		45	120	165	6
3	Graphical Documentation in Naval Architecture, part 1		1			15		30		45	160	205	8
4	Introduction to Naval Architecture and Marine Technology	1				30		15		45	120	165	6
5	Elective Subject				1						30	30	1
5a	Specialized Sport Activities, part 1				1						30	30	1
5b	Sport and Social Adaptation, part 1				1						30	30	1
6	English, part 1				1		15			15	45	60	2
	Total for the 1 semester:	2	2		2	90	15	105		210	610	820	30
7	Higher Mathematics, part 2	2				30		30		60	75	135	5
8	Chemistry	2				30		15		45	75	120	4
9	Material Science and Technology	2				30		30		60	75	135	5
10	Graphical Documentation in Naval Architecture, part 2		2					30	15	45	45	90	3
11	Physics	2				30	15	15		60	75	135	5
12	Computer Graphics		2			15		30		45	45	90	3
13	English, part 2				2		30			30	30	60	2
14	Elective Subject				2						30	30	1
14a	Specialized Sport Activities, part 2				2						30	30	1
14b	Sport and Social Adaptation, part 2				2						30	30	1
15	Practical Training, part 1				2						60	60	2
16	Introduction Practice				2						30	30	1
	Total for the 2 semester:	4	2		4	135	45	150	15	345	540	885	31
17	Thermal Engineering	3				30		15		45	90	135	5
18	Technical Mechanics	3				30	15	15		60	105	165	6
19	Hydrodinamics	3				30		30		60	105	165	6
20	Graphical Documentation in Naval Architecture, part 3		3			15		30		45	90	135	5
21	Electrical Engineering and Electronics	3				30		15		45	90	135	5
22	English, part 3				3		30			30	30	60	2
23	Elective Subject				3						30	30	1

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No	Subject Name			of te	rm	Ş	Seme	ster a	uditori id	um	Unsuper vised	Total work	ECTS
INO	Subject Name	Е	PA	СР	A	L	S	L	CP CPR	Total	load	hours	credits
1	2	3	4	5	6	7	8	9	10	11	12	13	14
23a	Specialized Sport Activities, part 3				3						30	30	1
23b	Sports Management, part 1				3						30	30	1
	Total for the 3 semester:	4	1		2	135	45	105		285	540	825	30
24	Strength of Materials	4				30	15	15		60	105	165	6
25	Machine Elements	4				30		15	15	60	105	165	6
26	Electrical Equipment of Ships	4				30		15		45	90	135	5
27	Resistance of Ship and Marine Structures		4			30		15		45	90	135	5
28	Statics of Ship and Marine Structures	4				30		15	15	60	90	150	5
29	English, part 4		4				30			30	30	60	2
30	Elective Subject				4						30	30	1
30a	Specialized Sport Activities, part 4				4						30	30	1
30b	Sports Management, part 2				4						30	30	1
	Total for the 4 semester:	4	2		1	150	45	75	30	300	540	840	30
31	Dynamics of Ship and Marine Structures	5				30		15		45	120	165	6
32	Propulsors and Maneuvering of Ships and Marine Structures	5				30		30		60	90	150	5
33	Ship Propulsors, project			5					30	30	30	60	2
34	Structure Details of Ships and Marine Structures	5				30		15		45	90	135	5
35	Marine Power Plants	5				30		15		45	105	150	5
36	Technical Safety		5			15				15	45	60	2
37	English Language - specialized, part 1				5		30			30	30	60	2
38	Elective Subject		5			15	15			30	60	90	3
38a	Communication and Presentation		5			15	15			30	60	90	3
38b	Philosophy		5			15	15			30	60	90	3
	Total for the 5 semester:	4	2	1	1	150	45	75	30	300	570	870	30
39	Structural Mechanics of Ships and Marine Facilities	6				30		15		45	135	180	7
40	Strength of Ships and Marine Structures	6				30		30		60	105	165	6
41	Strength and Structure of Ships and Marine Facilities, project			6					30	30	30	60	2
42	3D Geometric Modeling in Ships and Marine Structures	6				15		30	15	60	90	150	5
43	Welding of Marine Structures	6				30		30		60	60	120	4
44	English Language - specialized, part 2				6		30			30	30	60	2
45	Practical Training, part 2				6						60	60	2
46	Specialized Practice				6						60	60	2
	Total for the 6 semester:	4		1	3	105	30	105	45	285	570	855	30
47	Methodology for Design of Ships and Marine Structures	7				30		15		45	120	165	6
48	Technology for Construction of Ships and Marine Facilities		7			30		15		45	120	165	6
49	Technology for Construction of Ships and Marine Facilities, project		 	7				-	30	30	30	60	2
50	Piping Systems, Hull and Safety Equipment for Ships and Marine	7		<u> </u>		30		30		60	120	180	6
	Structures								1.5				
51	Architecture of Ships and the Marine Facilities	7				30		15	15	60	90	150	5
52	English Language - specialized, part 3		_		7	-	30			30	30	60	2
53	Elective Subject		7			30	15			45	75	120	4
53a	Economics		7			30	15			45	75	120	4
53b	Management of the Industrial Enterprise		7			30	15			45	75	120	4
	Total for the 7 semester:	3	2	1	1	150	45	75	45	315	585	900	31
54	Design Calculations and Documentation for Ships and Marine Structures	8				30		15		45	135	180	6

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		Ту	pes con		rm	5	Seme	ster a	uditori id		Unsuper	Total	ECTS
No	Subject Name	Е	PA	СР	A	L	S	L	CP CPR	Total	vised load	work hours cred	credits
1	2	3	4	5	6	7	8	9	10	11	12	13	14
55	Ship Design, project			8					30	30	30	60	2
56	Ship Repair Technology	8				30		15		45	105	150	5
57	CAD Systems for Ships and Marine Structures	8				15		30	15	60	105	165	6
58	English Language - specialized, part 4		8				30			30	30	60	2
	Total for the 8 semester:	3	1	1		75	30	60	45	210	405	615	21
	Total for all corses of education:	28	12	4	14	990	300	750	210	2250	4360	6610	233

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Facultative subjects

N		Ту	pes con	of te	rm	;	Seme		auditori incl:	ium	Unsuper		ECTS
No	lo Subject Name	Е	PA	СР	A	L	S	L	CP CPR	Total		work hours	credits
1	2	3	4	5	6	7	8	9	10	11	12	13	14

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	8		

Note:

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

Accepted from AU with

Protocol No 42 / 27.05.2019

Valid from the 2019 / 2020 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 SME: Dean of Faculty FSB:

/ Assoc. Prof. PhD Kostova Ir. / Assoc. Prof. PhD Hadzhidimov I. /