TECHNICAL UNIVERSITY OF VARNA

Ratified by:
Rector of TU-Varna: .....
/ Prof. DSc Vasilev R. /

CURRICULUM

Proffesional orientation: **Transport, Navigation and Aviation**

Program: **Marine Engineering**

Proffesional qualification: **Marine Engineer**

Educational and qualificational degree: **Bachelor**

Form of stady: **Full - Time**

Term of stady: **4 years / 8 semesters**

No	Subject Name	Types of term control				Semester auditorium load					Unsupervised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Higher Mathematics, part 1	1				30		30		60	115	175	7
2	Computer Aided Design, part 1		1					30		30	95	125	5
3	Technical Chemistry	1				30		15		45	105	150	6
4	Technical Drawing		1					30		30	75	105	4
5	Academic Vocational Training I, part 1				1						60	60	2
6	Elective Subject				1						30	30	1
6a	Specialized Sport Activities, part 1				1						30	30	1
6b	Sport and Social Adaptation, part 1				1						30	30	1
7	English, part 1				1		30			30	30	60	2
8	Practical Training, part 1				1						75	75	3
	Total for the 1 semester:	**2**	**2**		**4**	**60**	**30**	**105**		**195**	**585**	**780**	**30**
9	Higher Mathematics, part 2	2				30		30		60	75	135	5
10	Physics	2				30		15		45	90	135	5
11	Material Science and Technology	2				30		30		60	75	135	5
12	Electrical Engineering and Electronics, part 1		2			30		30		60	75	135	5
13	Technical Mechanics	2				30		30		60	75	135	5
14	English, part 2		2				30			30	30	60	2
15	Elective Subject				2						30	30	1
15a	Specialized Sport Activities, part 2				2						30	30	1
15b	Sport and Social Adaptation, part 2				2						30	30	1
16	Academic Vocational Training I, part 2				2						60	60	2
17	Practical Training, part 2				2						75	75	3
	Total for the 2 semester:	**4**	**2**		**3**	**150**	**30**	**135**		**315**	**585**	**900**	**33**
18	Strength of Materials	3				30		30		60	105	165	6
19	Computer Aided Design, part 2		3					30		30	60	90	3
20	Technical Thermodynamics and Heat Transfer	3				30		30		60	75	135	5
21	Fluid Mechanics	3				30		15		45	60	105	4
22	Electrical Engineering and Electronics, part 2	3				30		30		60	75	135	5
23	English, part 3		3				30			30	30	60	2

No	Subject Name	Types of term control				Semester auditorium load					Unsupervised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
24	Elective Subject				3						30	30	1
24a	Specialized Sport Activities, part 3				3						30	30	1
24b	Sports Management, part 1				3						30	30	1
25	Academic Vocational Training II, part 1				3						60	60	2
26	Practical Training, part 3				3						75	75	3
Total for the 3 semester:		**4**	**2**		**3**	**120**	**30**	**135**		**285**	**570**	**855**	**31**
27	Machine Elements	4				30		30		60	75	135	5
28	Ship Theory and General Arrangements	4				30		15		45	90	135	5
29	Theory of Mechanisms and Machines	4				30		15		45	90	135	5
30	Marine Hydraulic Machines	4				30		15		45	60	105	4
31	Heat-Engineering Measurements		4			30		15		45	60	105	4
32	English Language - specialized, part 1		4				30			30	30	60	2
33	Elective Subject				4						30	30	1
33a	Specialized Sport Activities, part 4				4						30	30	1
33b	Sports Management, part 2				4						30	30	1
34	Academic Vocational Training II, part 2				4						75	75	3
35	Practical Training, part 4				4						75	75	3
Total for the 4 semester:		**4**	**2**		**3**	**150**	**30**	**90**		**270**	**585**	**855**	**32**
36	Electrical Equipment of Ships	5				30		30		60	75	135	5
37	Marine Deck Machinery and General Ship Service Systems	5				30		15		45	60	105	4
38	Marine Steam and Gas Turbines	5				30		15		45	90	135	5
39	Maritime Law		5			30		15		45	60	105	4
40	Marine Diesel Engines, part 1				5	30		15		45	60	105	4
41	Marine Auxiliary Machinery	5				30		15		45	60	105	4
42	English Language - specialized, part 2		5				30			30	30	60	2
43	Academic Vocational Training III, part 2				5						60	60	2
44	Practical Training, part 5				5						75	75	3
Total for the 5 semester:		**4**	**2**		**3**	**180**	**30**	**105**		**315**	**570**	**885**	**33**
45	Automatic Control of Ship Power Systems	6				30		30		60	135	195	7
46	Marine Diesel Engines, part 2	6				30		15		45	120	165	6
47	Marine Diesel Engines, project			6					30	30	60	90	3
48	Technical Safety and Control of Environmental Effects		6			30		15		45	90	135	5
49	Marine Boilers	6				30		15	15	60	90	150	6
50	English Language - specialized, part 3		6				30			30	30	60	2
51	Academic Vocational Training III, part 2				6						75	75	3
52	Practical Training, part 6				6						75	75	3
Total for the 6 semester:		**3**	**2**	**1**	**2**	**120**	**30**	**75**	**45**	**270**	**675**	**945**	**35**
53	Ship Electronics and Microprocessor Systems	7				30		30		60	75	135	5
54	Ship Power Plants, part 1				7	30		15		45	60	105	4
55	Ship Power Plants Testing	7				30		30		60	75	135	5
56	Marine Machinery Building Technology	7				30		30		60	75	135	5
57	Vibrations and Vibrodiagnostics of Marine Machinery	7				30		30		60	75	135	5
58	English Language - specialized, part 4		7				60			60	60	120	4
59	Practical Training, part 7				7						60	60	2
Total for the 7 semester:		**4**	**1**		**2**	**150**	**60**	**135**		**345**	**480**	**825**	**30**
60	Ship Power Plants, part 2	8				30		15		45	90	135	5

No	Subject Name	Types of term control				Semester auditorium load					Unsupervised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
61	Ship Power Plants, project			8					30	30	30	60	2
62	Technical Maintenance and Repair of Marine Machinery	8				30		30		60	75	135	5
63	Technical Operation of Ship Power Plants	8				30		30		60	105	165	6
64	English Language - specialized, part 5		8				60			60	60	120	4
65	Practical Training, part 8				8						60	60	2
66	Elective Subject				8						960	960	32
66a	Onboard Training				8						960	960	32
66b	Shipyard Training				8						960	960	32
	Total for the 8 semester:	**3**	**1**	**1**	**2**	**90**	**60**	**75**	**30**	**255**	**1380**	**1635**	**56**
	Total for all corses of education:	**28**	**14**	**2**	**22**	**1020**	**300**	**855**	**75**	**2250**	**5430**	**7680**	**280**

Facultative subjects

No	Subject Name	Types of term control				Semester auditorium load incl:					Unsupervised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Additional Training for Seafarers in Compliance with STCW Convention, part 1				2	40		20		60	60	120	4
2	Additional Training for Seafarers in Compliance with STCW Convention, part 2				4	20		6		26	34	60	2
3	Additional Training for Seafarers in Compliance with STCW Convention, part 3				6	12		28		40	50	90	3
4	Additional Training for Seafarers in Compliance with STCW Convention, part 4				7	20		20		40	50	90	3
5	Additional Training for Seafarers in Compliance with STCW Convention, part 5				8	55		40		95	95	190	7

Types of graduation	Semester	Unsupervised load	ECTS credits
State Examination in English	8	300	10
Preparation for State Examinations	8		
State Examination in Marine Engineering	8		

Note:

1. The duration of the optional subject “Onboard Training” or “Shipyard Training” is 6 months. It is conducted after the 4th, 6th and 8th semester and/or partially during the period of state exams preparation.
2. The facultative subjects are a necessary prerequisite for starting a onboard practice aimed at attaining seafarer`s license.

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

Accepted from AU with

Protocol No 11 / 06.06.2016

Modified with Protocols No 18 / 23.01.2017, No 24 / 30.10.2017

Valid from the 2016 / 2017 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:
/ Assoc. Prof. PhD Kostova Ir. /

Dean of Faculty FSB:
/ Assoc. Prof. PhD Hadzhidimov I. /

03.09.2019