



TECHNICAL UNIVERSITY OF VARNA

Ratified by:

Rector.....

/Prof. Ventsislav Valchev, PhD/

CURRICULUM

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

Educational and qualification degree: **BACHELOR**

Programme: **NAVIGATION**

Professional qualification: **ENGINEER NAVIGATOR**

Form of study: **FULL - TIME**

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

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	Mathematics, part 1	*				30	30				60	105	165	6
2	Computer Science and Computer Technology	*				15				45	60	105	165	6
3	Technical Documentation				*	15	15				30	135	165	6
4	English Language - specialized, part 1		*				60				60	105	165	6
5	Science		*			30				30	60	105	165	6
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	90	105	0	0	75	270	585	855	31
7	Material Science and Technology	*				30				30	60	75	135	5
8	Mathematics, part 2	*				30	30				60	105	165	6
9	Seamanship	*				30				30	60	105	165	6
10	Technical Mechanics		*			30	15				45	75	120	4
11	Electrical Engineering and Electronics		*			30				30	60	60	120	4
12	English Language - specialized, part 2		*				60				60	105	165	6
13	Optional Subject				*									
a	Specialized Sport Activities, part 2											30	30	1
b	Adapted Physical Activity*					(30)	(15)				(45)	(75)	(120)	(4)
Total for the 2 semester:		3	3	0	1	150	105	0	0	90	345	555	900	32

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
14	Collision Regulations, part 1	*								45	45	90	135	5
15	Technical Aids to Navigation	*				30	15			15	60	75	135	5
16	Pilotage and Hydrography		*			15	15				30	105	135	5
17	Meteorology and Oceanography	*				45	15			15	75	75	150	5
18	Statistics		*			15	30				45	90	135	5
19	English Language - specialized, part 3		*				60				60	75	135	5
20	Optional Subject				*									
a	Specialized Sport Activities, part 3											30	30	1
b	Adapted Physical Activity*													
Total for the 3 semester:		3	3	0	1	105	135	0	0	75	315	540	855	31
21	Collision Regulations, part 2	*								60	60	105	165	6
22	Methods and Means for Environmental Protection during Ship's Operations		*			30				15	45	120	165	6
23	Basics of Navigation	*				30	15			15	60	105	165	6
24	Ship Theory	*				30	30				60	105	165	6
25	English Language - specialized, part 4		*				60				60	105	165	6
26	Optional Subject				*									
a	Specialized Sport Activities, part 4											30	30	1
b	Adapted Physical Activity*													
Total for the 4 semester:		3	2	0	1	90	105	0	0	90	285	570	855	31
27	Accuracy of Navigational Observations	*				30				30	60	105	165	6
28	Ship's Operation and Cargo Handling, part 1	*				30	15				45	120	165	6
29	Ship Power Plants		*			30				15	45	120	165	6
30	Bridge Equipment and Ship Systems		*			15				15	30	135	165	6
31	English Language - specialized, part 5		*				60				60	105	165	6
Total for the 5 semester:		2	3	0	0	105	75	0	0	60	240	585	825	30
32	Astronavigation	*				45				15	60	105	165	6
33	Ship Commercial Operation		*			30	30				60	75	135	5
34	Theory of Manoeuvring	*				30				30	60	75	135	5
35	Ship's Operation and Cargo Handling, part 2	*				30	30				60	75	135	5
36	Visual and Technical Methods for Determining Ship's Position		*			30				30	60	75	135	5
37	English Language - specialized, part 6		*				60				60	75	135	5
Total for the 6 semester:		3	3	0	0	165	120	0	0	75	360	480	840	31

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	
38	Passage Planning	*				30				30	60	75	135	5	
39	Electronic Navigation Aids	*				30				30	60	75	135	5	
40	Communications at Sea	*				30	30				60	75	135	5	
41	Radar Watch and Plotting		*			30				15	45	90	135	5	
42	Ship's Handling and Bridge Team Management		*			30	30				60	105	165	6	
43	English Language - specialized, part 7		*				45				45	90	135	5	
Total for the 7 semester:		3	3	0	0	150	105	0	0	75	330	510	840	31	
44	Shipboard Damage Control	*				30	30				60	75	135	5	
45	International Maritime Conventions. Ship Documents	*				30	15				45	120	165	6	
46	Safety of Navigation. SAR	*				30	30				60	75	135	5	
47	English Simulator in Emergencies		*							30	30	90	120	4	
48	English Language - specialized, part 8		*				45				45	90	135	5	
49	Course Project			*				15			15	150	165	6	
Total for the 8 semester:		3	2	1	0	90	120	15	0	30	255	600	855	31	
Totals for the whole course of education		22	21	1	5	945	870	15	0	570	2400	4425	6825	248	
Facultative Subjects															
1	Additional Training for Seafarers in Compliance with STCW Convention, part 1				2	40					15	55	65	120	4
2	Additional Training for Seafarers in Compliance with STCW Convention, part 2				4	20					6	26	79	105	3
3	Onboard Training, part 1				4								360	360	12
4	Additional Training for Seafarers in Compliance with STCW Convention, part 3				6	60					40	100	100	200	8
5	Onboard Training, part 2				6								360	360	12
6	Navigation with Radar and ARPA (chapter II, A – II/1)				7	30					40	70	80	150	5
7	GMDSS Ship General Operator Category (Chapter IV, A – IV/2)				7	62					48	110	110	220	8
8	Operational use of ECDIS and AIS (Ch II,A-II/1)				8	20					20	40	80	120	4
9	Bridge Resources Management and Teamwork (chapter II, A – II/1)				8	20					20	40	80	120	4

Types of graduation	Semester	Unsupervised load	ECTS credits
Preparation for State Examination	8	300	10
State Examinations:			
• Navigation			
• Ship Cargo Handling			
• Ship Operation Control Care For Persons On Board			
• State examination in English			

Notes:

1. Training in all facultative disciplines is mandatory

2. The facultative disciplines Onboard Training, part 1 and Onboard Training, part 2 shall be held on a ship with a total duration of not less than 90 days, in accordance with the requirements of the STCW Convention and Regulation No. 6 on the competence of seafarers in the Republic of Bulgaria. The onboard training is conducted after the 2nd and 3rd year or after the 4th year before taking the State Exam. Validation of onboard training to be made after 12 months of seagoing service of which not less than 6 months as a deck cadet on board a ship above 500 GT engaged on international voyages.

3. The possession of valid certificates for the courses included in the facultative disciplines is a mandatory condition for conducting the onboard training practice.

4. The curriculum is valid for Bulgarian and English language training

5.* 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.

Approved by the Academic Board of TU-Varna:

Protocol № 18 / 06.07.2020 г., № 31 / 29.03.2021

Modified with Protocols: № 47 / 18.04.2022, №62/27.02.2023.

Valid from 2022/2023 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:

/Prof. Ch. Alexandrov, PhD/

Dean of Faculty:

/Assoc. Prof. I. Hadzhidimov, PhD/

Executive Director of Executive Agency "Maritime Administration":

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