



TECHNICAL UNIVERSITY OF VARNA

Ratified by:

Rector

/Prof. Dragomir Dimitrov, PhD/

C U R R I C U L U M

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

Educational and qualification degree: **BACHELOR**

Programme: **NAVIGATION (in English Language)**

Professional qualification: **ENGINEER NAVIGATOR**

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	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	Elective Subject				*							30	30	1
a	Specialized Sport Activities, part 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	Elective Subject				*							30	30	1
a	Specialized Sport Activities, part 2													
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	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
14	Collision Regulations, part 1	*								45	45	120	165	6
15	Ship Theory	*				30	30				60	105	165	6
16	Basics of Navigation	*				30	15			15	60	105	165	6
17	Statistics		*			15	30				45	120	165	6
18	English Language - specialized, part 3		*				60				60	75	135	5
19	Elective Subject				*							30	30	1
a	Specialized Sport Activities, part 3													
b	Adapted Physical Activity*													
Total for the 3 semester:		3	2	0	1	75	135	0	0	60	270	555	825	30
20	Collision Regulations, part 2	*								60	60	75	135	5
21	Methods and Means for Environmental Protection during Ships Operations		*			30				15	45	90	135	5
22	Pilotage and Hydrography		*			15	15				30	105	135	5
23	Technical Aids to Navigation	*				30	15			15	60	75	135	5
24	Meteorology and Oceanography	*				45	15			15	75	75	150	5
25	English Language - specialized, part 4		*				60				60	75	135	5
26	Elective Subject				*							30	30	1
a	Specialized Sport Activities, part 4													
b	Adapted Physical Activity*													
Total for the 4 semester:		3	3	0	1	120	105	0	0	105	330	525	855	31
27	Theory of Navigational Observations	*				45				30	75	90	165	6
28	Ships Operation and Cargo Handling, part 1	*				30	15				45	120	165	6
29	Ship Power Plants		*			30				15	45	120	165	6
30	Communications at Sea	*				30	30				60	105	165	6
31	English Language - specialized, part 5		*				60				60	105	165	6
Total for the 5 semester:		3	2	0	0	135	105	0	0	45	285	540	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	Ships Operation and Cargo Handling, part 2	*				30	30				60	75	135	5
36	Visual and Technical Methods for Determining Ships Position	*				45				30	75	90	165	6
37	English Language - specialized, part 6		*				60				60	75	135	5
Total for the 6 semester:		4	2	0	0	180	120	0	0	75	375	495	870	32

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
38	Passage Planning	*				30				30	60	105	165	6
39	Electronic Navigation Aids	*				30				30	60	105	165	6
40	Radar Watch and Plotting		*			30				15	45	120	165	6
41	Ships Handling and Bridge Team Management		*			30	30				60	105	165	6
42	English Language - specialized, part 7τ		*				45				45	105	150	6
Total for the 7 semester:		2	3	0	0	120	75	0	0	75	270	540	810	30
43	On Shipboard Damage Control	*				30	30				60	75	135	5
44	International Maritime Conventions. Ship Documents	*				30	15				45	90	135	5
45	Safety of Navigation. SAR	*				30	30				60	75	135	5
46	English Simulator in Emergencies		*							30	30	90	120	4
47	English Language - specialized, part 8		*				45				45	90	135	5
48	Course Project			*				15			15	150	165	6
Total for the 8 semester:		3	2	1	0	90	120	15	0	30	255	570	825	30
Totals for the whole course of education:		23	19	1	5	960	870	15	0	555	2400	4365	6765	246
Facultative Subjects														
1	Additional Training for Seafarers in Compliance with STCW Convention, part 1				2	40				15	55	65	120	4
2	Bulgarian Language				1,2		60				60	60	120	4
3	Additional Training for Seafarers in Compliance with STCW Convention, part 2				4	20				6	26	64	90	3
4	Onboard Training, part 1				4							360	360	12
5	GMDSS Ship General Operator Category (Chapter IV, A – IV/2)				5	62				48	110	110	220	8
6	Additional Training for Seafarers in Compliance with STCW Convention, part 3				6	60				40	100	100	200	8
7	Onboard Training, part 2				6							360	360	12
8	Navigation with Radar and ARPA (chapter II, A – II/1)				7	30				40	70	80	150	5
9	Operational use of ECDIS and AIS (Ch II,A-II/1)				7	20				20	40	80	120	4
10	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 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 № 22 / 28.10.2024

Modified with Protocols:

Valid from the 2024/2025 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.B. Dyakov, PhD/

Dean of Faculty:

/Assoc. Prof. P.Zlateva, PhD/

Executive Director of Executive Agency "Maritime Administration":

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