



## CURRICULUM

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

Program: **Environmental Engineering**

Professional qualification: **Engineer Ecologist**

Educational and qualificational degree: **Bachelor**

Form of study: **Full - Time**

Term of study: **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	Mathematics	1				30	30			60	115	175	7
2	General Chemistry	1				30		30		60	140	200	8
3	Engineering Graphics		1			30		15	15	60	115	175	7
4	Introduction in Natural Resources Use and Environmental Protection	1				30	15			45	130	175	7
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
<b>Total for the 1 semester:</b>		<b>3</b>	<b>1</b>		<b>1</b>	<b>120</b>	<b>45</b>	<b>45</b>	<b>15</b>	<b>225</b>	<b>530</b>	<b>755</b>	<b>30</b>
6	Computer Science and Computer Technology		2			15		30		45	90	135	5
7	Dynamics, Strength and Reliability of Machines Used in Environmental Protection and Sea Preservation	2				30	30			60	105	165	6
8	Economics		2			30	15			45	90	135	5
9	Analytical Chemistry	2				30		15		45	90	135	5
10	Natural Disasters	2				30	15		15	60	105	165	6
11	English, part 1		2				30			30	30	60	2
12	Elective Subject				2						30	30	1
12a	Specialized Sport Activities, part 2				2						30	30	1
12b	Sport and Social Adaptation, part 2				2						30	30	1
13	Practical Training, part 1				2						60	60	2
<b>Total for the 2 semester:</b>		<b>3</b>	<b>3</b>		<b>2</b>	<b>135</b>	<b>90</b>	<b>45</b>	<b>15</b>	<b>285</b>	<b>600</b>	<b>885</b>	<b>32</b>
14	Machine Science	3				30		15	15	60	115	175	7
15	Technical and Labour Safety		3			30		15		45	115	160	6
16	Ecology	3				30	15	15		60	140	200	8
17	English, part 2		3				30			30	30	60	2
18	Environmental Management	3				30	15			45	115	160	6
19	Elective Subject				3						30	30	1
19a	Specialized Sport Activities, part 3				3						30	30	1
19b	Sports Management, part 1				3						30	30	1
<b>Total for the 3 semester:</b>		<b>3</b>	<b>2</b>		<b>1</b>	<b>120</b>	<b>60</b>	<b>45</b>	<b>15</b>	<b>240</b>	<b>545</b>	<b>785</b>	<b>30</b>

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
20	Production Technologies and Materials		4			30		30		60	75	135	5
21	Meteorology and Oceanography		4			30	15			45	75	120	4
22	Preservation of Biodiversity	4				30	30			60	75	135	5
23	Marine Ecology	4				30		30		60	75	135	5
24	Processes and Apparatus in Industry	4				30		15		45	90	135	5
25	Noise, Vibrations and Radiation	4				30		30		60	75	135	5
26	Elective Subject				4						30	30	1
26a	Specialized Sport Activities, part 4				4						30	30	1
26b	Sports Management, part 2				4						30	30	1
27	Practical Training, part 2				4						60	60	2
<b>Total for the 4 semester:</b>		<b>4</b>	<b>2</b>		<b>2</b>	<b>180</b>	<b>45</b>	<b>105</b>		<b>330</b>	<b>555</b>	<b>885</b>	<b>32</b>
28	Water Pollution	5				30		30		60	90	150	6
29	Air Pollution	5				30		30		60	90	150	6
30	Industrial Accidents	5				30	30			60	105	165	6
31	Elective Subject	5				30		30		60	105	165	6
31a	Biotechnology and Biotechnological Purification Methods	5				30		30		60	105	165	6
31b	Industrial Microbiology and Microbiological Purification Methods	5				30		30		60	105	165	6
32	Environmental Protection in Urban Areas, project			5					30	30	30	60	2
33	Landscape Protection		5			30		15		45	115	160	6
<b>Total for the 5 semester:</b>		<b>4</b>	<b>1</b>	<b>1</b>		<b>150</b>	<b>30</b>	<b>105</b>	<b>30</b>	<b>315</b>	<b>535</b>	<b>850</b>	<b>32</b>
34	Water Treatment Technologies	6				30		30		60	90	150	6
35	Air Purification Technologies	6				30		30		60	90	150	6
36	Industry Environmental Impact	6				30	30			60	75	135	5
37	Environmental Monitoring and Expertise	6				30		30		60	75	135	5
38	Methods and Equipment of Ecological Production Using Sea Resources		6			30		30		60	75	135	5
39	Environmental Friendly Renewable Energy Sources		6			30		15		45	75	120	4
40	Practical Training, part 3				6						60	60	2
<b>Total for the 6 semester:</b>		<b>4</b>	<b>2</b>		<b>1</b>	<b>180</b>	<b>30</b>	<b>135</b>		<b>345</b>	<b>540</b>	<b>885</b>	<b>33</b>
41	Soil Pollution and Purifying Technology	7				30		15		45	120	165	6
42	Waste Processing Technology	7				30		30		60	90	150	6
43	Environmental Assessment and Environment Impact Assessment, project			7					30	30	30	60	2
44	Elective Subject	7				30	30			60	105	165	6
44a	Ecological Decision-making	7				30	30			60	105	165	6
44b	Modelling and Management of Ecosystems	7				30	30			60	105	165	6
45	Transport and Environment	7				30		30		60	105	165	6
46	Ecotoxicology		7			30		30		60	75	135	5
<b>Total for the 7 semester:</b>		<b>4</b>	<b>1</b>	<b>1</b>		<b>150</b>	<b>30</b>	<b>105</b>	<b>30</b>	<b>315</b>	<b>525</b>	<b>840</b>	<b>31</b>
47	Marine Transports Environmental Impact	8				30		15		45	105	150	6
48	Elective Subject	8				30		15		45	105	150	6
48a	Maintenance of Equipment in Purification Plants	8				30		15		45	105	150	6
48b	Sustainable Development in Industrial Zones	8				30		15		45	105	150	6
49	Elective Subject	8				30		15		45	105	150	6
49a	Nature Protected Areas	8				30		15		45	105	150	6
49b	Recreation Ecology	8				30		15		45	105	150	6

No	Subject Name	Types of term control				Semester auditorium load					Unsuper vised 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
50	Work Environment Quality	8				30		30		60	90	150	6
<b>Total for the 8 semester:</b>		<b>4</b>				<b>120</b>		<b>75</b>		<b>195</b>	<b>405</b>	<b>600</b>	<b>24</b>
<b>Total for all courses of education:</b>		<b>29</b>	<b>12</b>	<b>2</b>	<b>7</b>	<b>1155</b>	<b>330</b>	<b>660</b>	<b>105</b>	<b>2250</b>	<b>4235</b>	<b>6485</b>	<b>244</b>

### Facultative subjects

No	Subject Name	Types of term control				Semester auditorium load incl:					Unsuper-vised 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

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		

**Accepted from AU with**

Protocol No 30 / 23.04.2018

**Valid from the 2018 / 2019 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 EEP:

/ Assoc. Prof. PhD Toneva-Zheanova D. /

Dean of Faculty FSB:

/ Assoc. Prof. PhD Hadzhidimov I. /