



## 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			175	115	290	7
2	General Chemistry	1				30		30		200	140	340	8
3	Engineering Graphics		1			30		15	15	160	115	275	7
4	Introduction in Natural Resources Use and Environmental Protection	1				30	15			175	130	305	7
5	Optional Subject				1					30	30	60	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 semestrar:</b>		<b>3</b>	<b>1</b>		<b>1</b>	<b>120</b>	<b>45</b>	<b>45</b>	<b>15</b>	<b>740</b>	<b>530</b>	<b>1270</b>	<b>30</b>
6	Computer Science and Computer Technology		2			15		30		135	90	225	5
7	Dynamics, Strength and Reliability of Machines Used in Environmental Protection and Sea Preservation	2				30	30			165	105	270	6
8	Economics		2			30	15			135	90	225	5
9	Analytical Chemistry	2				30		15		135	90	225	5
10	Natural Disasters	2				30	15		15	150	105	255	6
11	English, part 1		2				30			60	30	90	2
12	Optional Subject				2					30	30	60	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	120	2
<b>Total for the 2 semestrar:</b>		<b>3</b>	<b>3</b>		<b>2</b>	<b>135</b>	<b>90</b>	<b>45</b>	<b>15</b>	<b>870</b>	<b>600</b>	<b>1470</b>	<b>32</b>
14	Machine Science	3				30		15	15	160	115	275	7
15	Technical and Labour Safety		3			30		15		160	115	275	6
16	Ecology	3				30	15	15		200	140	340	8
17	English, part 2		3				30			60	30	90	2
18	Environmental Management	3				30	15			160	115	275	6
19	Optional Subject				3					30	30	60	1
19a	Specialized Sport Activities, part 3				3						30	30	1
19b	Sports Management, part 1				3						30	30	1

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
<b>Total for the 3 semestar:</b>		<b>3</b>	<b>2</b>		<b>1</b>	<b>120</b>	<b>60</b>	<b>45</b>	<b>15</b>	<b>770</b>	<b>545</b>	<b>1315</b>	<b>30</b>
20	Production Technologies and Materials		4			30		30		135	75	210	5
21	Meteorology and Oceanography		4			30	15			120	75	195	4
22	Preservation of Biodiversity	4				30	30			135	75	210	5
23	Marine Ecology	4				30		30		135	75	210	5
24	Processes and Apparatus in Industry	4				30		15		135	90	225	5
25	Noise, Vibrations and Radiation	4				30		30		135	75	210	5
26	Optional Subject				4					30	30	60	1
26a	Specialized Sport Activities, part 4				4						30	30	1
266	Sports Management, part 2				4						30	30	1
27	Practical Training, part 2				4					60	60	120	2
<b>Total for the 4 semestar:</b>		<b>4</b>	<b>2</b>		<b>2</b>	<b>180</b>	<b>45</b>	<b>105</b>		<b>885</b>	<b>555</b>	<b>1440</b>	<b>32</b>
28	Water Pollution	5				30		30		150	90	240	6
29	Air Pollution	5				30		30		150	90	240	6
30	Industrial Accidents	5				30	30			165	105	270	6
31	Optional Subject	5				30		30		165	105	270	6
31a	Biotechnology and Biotechnological Purification Methods	5				30		30		60	105	165	6
316	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		160	115	275	6
<b>Total for the 5 semestar:</b>		<b>4</b>	<b>1</b>	<b>1</b>		<b>150</b>	<b>30</b>	<b>105</b>	<b>30</b>	<b>820</b>	<b>535</b>	<b>1355</b>	<b>32</b>
34	Water Treatment Technologies	6				30		30		150	90	240	6
35	Air Purification Technologies	6				30		30		150	90	240	6
36	Industry Environmental Impact	6				30	30			135	75	210	5
37	Environmental Monitoring and Expertise	6				30		30		135	75	210	5
38	Methods and Equipment of Ecological Production Using Sea Resources		6			30		30		135	75	210	5
39	Environmental Friendly Renewable Energy Sources		6			30		15		120	75	195	4
40	Practical Training, part 3				6					60	60	120	2
<b>Total for the 6 semestar:</b>		<b>4</b>	<b>2</b>		<b>1</b>	<b>180</b>	<b>30</b>	<b>135</b>		<b>885</b>	<b>540</b>	<b>1425</b>	<b>33</b>
41	Soil Pollution and Purifying Technology	7				30		15		165	120	285	6
42	Waste Processing Technology	7				30		30		150	90	240	6
43	Environmental Assessment and Environment Impact Assessment, project			7					30	30	30	60	2
44	Optional Subject	7				30	30			165	105	270	6
44a	Ecological Decision-making	7				30	30			60	105	165	6
446	Modelling and Management of Ecosystems	7				30	30			60	105	165	6
45	Transport and Environment	7				30		30		165	105	270	6
46	Ecotoxicology		7			30		30		135	75	210	5
<b>Total for the 7 semestar:</b>		<b>4</b>	<b>1</b>	<b>1</b>		<b>150</b>	<b>30</b>	<b>105</b>	<b>30</b>	<b>810</b>	<b>525</b>	<b>1335</b>	<b>31</b>
47	Marine Transports Environmental Impact	8				30		15		150	105	255	6
48	Optional Subject	8				30		15		150	105	255	6
48a	Maintenance of Equipment in Purification Plants	8				30		15		45	105	150	6
486	Sustainable Development in Industrial Zones	8				30		15		45	105	150	6
49	Optional Subject	8				30		15		150	105	255	6
49a	Nature Protected Areas	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
496	Recreation Ecology	8				30		15		45	105	150	6
50	Work Environment Quality	8				30		30		150	90	240	6
<b>Total for the 8 semestar:</b>		<b>4</b>				<b>120</b>		<b>75</b>		<b>600</b>	<b>405</b>	<b>1005</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>6380</b>	<b>4235</b>	<b>10615</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**

Protokol No 30 / 23.04.2018

**Valid for 2018 / 2019 г. academic year.**

Head of Department EEP:

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

Dean of Faculty FSB:

/ Assoc. Prof. PhD Hadzhdimov I. /