

COURSE STRUCTURE

2025-10116 Ecological Engineering (EN) Bachelor

1						2					
No	Course code	Title	Th	Pr	Ects	No	Course code	Title	Th	Pr	Ects
1	ECO 103	General ecology	2	2+0	7	1	AZD 140	Official and Academic Communication in the Azerbaijani language	0	2+0	4
2	CHE 155	Environmental Chemistry and Fundamentals of Toxicology	1	1+0	5	2	ECO 114	Ecological monitoring	2	1+0	5
3	CHE 151	General Chemistry	2	2+0	8	3	MATH 158	Mathematics- 1	2	2+0	5
4	XXX XXX	[NAE] Official and Academic Communication in a Foreign language-1	0	6+0	5	4	ECO 102	Ecological engineering	2	2+0	6
5	XXX XXX	[NAE] Official and Academic Communication in a Foreign language-2	0	6+0	5	5	XXX XXX	[NAE] Official and Academic Communication in a Foreign language-3	0	6+0	5
						6	XXX XXX	[AE] Area Elective Course I	2	2+0	5
Subtotal: 30						Subtotal: 30					

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№	Course code	Title	Th	Pr	Ects
1	MM 120	Civil Defence	3	0+0	3
2	PHYS 228	Essential physics	2	2+0	7
3	ME 213	Engineering graphics	2	2+0	6
4	ECO 205	Hydrology	3	1+0	6
5	MATH 159	Higher mathematics- 2	2	2+0	5
6	XXX XXX	[NAE] Humanitarian elective 1	2	0+0	3

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	TRX 111	History of Azerbaijan	2	2+0	5
2	CHE 242	Analytical Chemistry and Instrumental Analysis	1	1+0	4
3	MATH 265	Applied mathematics	2	2+0	6
4	ECO 216	Modeling of ecological systems	2	2+0	5
5	ECO 236	Physical basis of remote sensing	2	2+0	7
6	XXX XXX	[NAE] Humanitarian elective II	1	1+0	3

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	ECO 325	Environmental Impact Assessment	2	2+0	6
2	ECO 327	Integrated water resources management	2	2+0	6
3	ECO 343	Soil amelioration and recultivation, its ecological basis	3	1+0	6
4	XXX XXX	[AE] Specialty elective subject II	3	1+0	6
5	XXX XXX	[AE] Specialty elective subject III	3	1+0	6

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	ECO 334	Environmental Management	2	2+0	6
2	ECO 340	Climate change and global warming	2	2+0	5
3	ECO 344	Cleaner production and waste recycling	2	2+0	6
4	XXX XXX	[AE] Specialty elective subject IV	2	2+0	7
5	XXX XXX	[AE] Specialty elective subject V	3	1+0	6

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	XXX XXX	[AE] Specialty elective subject VI	2	2+0	6
2	XXX XXX	[AE] Specialty elective subject X	2	2+0	6
3	XXX XXX	[AE] Specialty elective subject VII	2	2+0	6
4	XXX XXX	[AE] Specialty elective subject VIII	2	2+0	6
5	XXX XXX	[AE] Specialty elective subject IX	2	2+0	6

Subtotal: 30

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№	Course code	Title	Th	Pr	Ects
1	ECO 490	Internship	0	0+0	21
2	XXX XXX	[AE] Graduation Work	0	0+0	9

Subtotal: 30

Total ECTS credits: **240**

AE - Area Elective Courses

№	Course code	Title	Th	Pr	Ects
1	ECO 449	Health, Safety and Environment (HSE)	2	2+0	6
2	ECO 451	Informatics and computer analysis of ecological processes	2	2+0	6
3	ECO 455	Metrology, standardization and certification	2	2+0	6
4	ECO 461	Design of Sustainable Technological Systems	2	2+0	6
5	ECO 457	Aerospace monitoring	2	2+0	6
6	ECO 459	Technological systems and environmental risk	2	2+0	6
7	ECO 303	Waste Management	2	2+0	7
8	ECO 248	Ecology of the mining industry	2	2+0	5
9	ECO 118	Radioecology	1	1+0	5
10	ECO 246	Earth and Space Science	2	2+0	5

11	ECO 244	Environmental economics	2	2+0	5	
12	ECO 467	Environmental modeling	2	2+0	6	
13	ECO 329	Environmental marketing and management	3	1+0	6	
14	ECO 331	Geographic Information Systems	3	1+0	6	
15	ECO 315	Urban Ecology	3	1+0	6	
16	ECO 333	Sustainable Innovation and Social Change	3	1+0	6	
17	ECO 342	Applied Environmental System Analysis	3	1+0	6	
18	ECO 336	Alternative energy sources	2	2+0	7	
19	IE 355	Ergonomics and technical design	3	1+0	6	
20	IE 346	Engineering Statistics	3	1+0	6	
21	CE 367	Engineer geodesy	3	1+0	6	
22	ME 368	Thermodynamics	3	1+0	6	
23	ECO 499	Graduation Work: Thesis	0	0+0	9	
24	ECO 498	Graduation Work: Exam	0	0+0	9	
25	IE 475	Quality management and control	2	2+0	6	
26	ECO 447	Ecology of the oil industry	2	2+0	6	
27	ECO 453	Environmental law and policy	2	2+0	6	
28	IE 449	Project management	2	2+0	6	
29	IE 451	Modern programming languages	2	2+0	6	
30	IE 447	Food engineering	2	2+0	6	
31	ECO 465	The role of nanotechnology in environmental monitoring	2	2+0	6	
32	ECO 463	Environmental risk management	2	2+0	6	
33	IE 325	Research Methods	3	1+0	6	
34	IE 342	Engineering Ethics	3	1+0	6	
35	ECO 338	Ecological biotechnology	2	2+0	7	
36	CHE 451	Radiation Chemistry	2	2+0	6	

NAE - Non-Area Elective Courses

No	Course code	Title	Th	Pr	Ects	
1	ENG 015	English for business and academic communication-1 (reading- writing)	0	6+0	5	

2	ENG 025	English for business and academic communication-2 (listening comprehension)	0	6+0	5	
3	SOC 111	Sociology	2	0+0	3	
4	ECO 101	Earth and Space Science	1	1+0	3	
5	LAW 101	Introduction to Law	1	1+0	3	
6	PA 137	Politology	1	1+0	3	
7	IE 144	Research methods and presentation	1	1+0	3	
8	SOC 155	Introduction to Multiculturalism	2	0+0	3	
9	ECON 323	Economics	1	1+0	3	
10	ENG 040	English for business and academic communication-3 (for academic purposes)	0	6+0	5	