

# AZERBAIJAN UNIVERSITY OF ARCHITECTURE AND CONSTRUCTION

Chair Ecological Engineering

Department Master's program

Year I

Group M333A3

**APPROVED**

Head of Chair

F. Aliyev

5 February 2014

Wastewater management classes

## COURSE SCHEDULE

No	Topic	Hours	Date
1	Introduction. History of sewage development.	2	
2	Outdoor sewage systems	2	
3	Outdoor sewage diagrams	2	
4	Determining the conditions of wastewater calculation	2	
5	Calculation and design of sewage network	2	
6	Hydraulic calculation of a main collector and its profile design	2	
7	Sewage pipes and conduits, requirements for their materials and connection	2	
8	Sewer inspection chambers. Laying sewer around obstructions.	2	
9	Storm sewers. Rainfall measurement.	2	
10	Wastewater types, composition and characteristics	2	
11	Determining wastewater density and biochemical oxygen demand	2	
12	Reservoirs and their pollution	2	
13	Regulation for protection of reservoirs against sewage pollution	2	
14	Determining the required degree of sewage treatment	2	
15	Sewage treatment methods. Method and diagram of mechanical treatment	2	
16	Method and diagram of aerotank biological treatment	2	
17	Method and diagram of biofilter biological treatment	2	

Approved at the meeting of the Chair of Ecological Engineering, Azerbaijan University of Architecture and Construction, 12.09.2014 (Minutes No 1)

Head of Chair Prof. F. Aliyev

Ecology SYLLABUS for Bachelor's degree

in Groups 483 a1 a2

Faculty of Transport Specialty \_\_\_\_\_

No	Topic	Inclusive of			
		Lectures		Classes	
		hours	date	hours	date
1	2	3	4	5	6
1	General idea of ecological science	2	15.09.14		
2	Ecological factors	2	22.09.14		
3	Biosphere, its material basis and boundaries	2	29.09.14		
4	Structure and composition of atmosphere	2	06.10.14		
5	Sources of atmospheric pollution	2	13.10.14		
6	Hydrosphere, sources of its pollution	2	20.10.14		
7	Purification and sanitation of industrial wastewater	2	27.10.14		
8	Lithosphere, its structure and composition	2	03.11.14		
9	Sources of lithosphere pollution	2	10.11.14		
10	Manmade ecosystems	2	17.11.14		
11	Environmental impact of transport vehicles	2	24.11.14		
12	Functional zoning of urban area	2	01.12.14		
13	Cityscape and construction climate regions	2	08.12.14		
14	Problem of urban noise	2	15.12.14		
15	Environmental situation in the Azerbaijan Republic	2	22.12.14		
		Total: 30 hours			
1	2		3	4	5
<b>CLASSES</b>					
1	On the air environment situation		2	22.09.14	
2	Sanitary protection zone management		2	06.10.14	
3	Atmosphere pollution calculation		2	20.10.14	
4	Environmental impact of transport vehicles		2	03.11.14	
5	Design of air cleaning equipment		2	17.11.14	
6	Reflection factor of construction materials		2	01.12.14	
7	Water sources treatment methods		2	15.12.14	
8	Radioactive contamination of natural environment		2	29.12.14	
		Total: 16 hours			

## AZERBAIJAN UNIVERSITY OF ARCHITECTURE AND CONSTRUCTION

Chair: Ecological Engineering

Department: \_\_\_\_\_

**APPROVED**

Year: \_\_\_\_\_

Head of Chair

Group: M333A3

\_\_\_\_\_ 2013

Teacher: Dadashov Elkhan Rasul

Subject: Resource Economics

### COURSE SCHEDULE

<i>No</i>	<i>Lectures</i>	<i>Hours</i>	<i>Date</i>	<i>Group</i>
1	Resources. Types of resources	2	18.02.2014	M332a <sub>3</sub>
2	Natural resources	2	20.02.2014	
3	Problems of efficient use of resources	2	25.02.2014	
4	Use of waste as resource	2	04.03.2014	
5	Environmental significance of the use of waste as resource and its role in the environmental protection	2	06.03.2014	
6	Role of waste in resource economy	2	11.03.2014	
7	Efficient use of resources in production and industry	2	18.03.2014	
8	Resources management in production	2	20.03.2014	
9	Assessment and economic classification of natural resources	2	25.03.2014	
10	Assessment and economic classification of natural resources	2	01.04.2014	
11	Impact of different fields of production on natural resources (water, air, land, etc.)	2	03.04.2014	
12	Use of integrated waste management in developed countries	2	08.04.2014	
13	Integrated waste management and resource economy	2	15.04.2014	
14	Depletion of natural resources and problem of waste	2	17.04.2014	
15	Waste as a secondary resource	2	22.04.2014	
16	Production management with the use of waste as a secondary resource	2	29.04.2014	
17	Ecological classification of natural resources and the concept of waste	2	01.05.2014	
18	Methods of analysis of material resources use	2	06.05.2014	
19	Significance of natural and material resources saving	2	13.05.2014	
20	Analysis of effective use, composition and volume of material resources	2	15.05.2014	
21	Problems of material resources saving	2	20.05.2014	
22	Impact of natural resources on the economic development	2	27.05.2014	
23	Role of natural resources in the global economy	2	29.05.2014	
	<b>Total:</b>	<b>45 h</b>		

<i>No</i>	<i>Classes</i>	<i>Hours</i>	<i>Date</i>	<i>Group</i>
1	Role of new technology in the use of natural resources	2	18.02.2014	
2	Connection between zero waste production technology and resource economy	3	04.03.2014	
3	Resource economy and recycling	2	18.03.2014	
4	Waste and resources in developed countries	2	01.04.2014	
5	Impact of natural resources saving on economy	2	15.04.2014	
6	Use of oil industry and waste as resources in Azerbaijan	2	29.04.2014	
7	Use of oil industry and waste as resources in Azerbaijan	2	13.05.2014	
	<b>Total:</b>	<b>15 h</b>		

*Designed by: Dadashov E.*





Approved at the meeting of the Chair of Ecological Engineering, Azerbaijan University of Architecture and Construction, 12.09.2014 (Minutes No 1)

Head of Chair Prof. F. Aliyev

Engineering Ecology SYLLABUS for Bachelor's degree

in Groups 332 a<sub>1</sub> a<sub>2</sub> a<sub>3</sub>

Faculty of \_\_\_\_\_ Specialty Ecological Engineering

No	Topic	Inclusive of			
		Lectures		Classes	
		hours	date	hours	date
1	2	3	4	5	6
1	Subject of Ecological Engineering, its aim and objectives	2	15.09.14		
2	Ecology: development history and concept	2	18.09.14		
3	Structure and composition of atmosphere	2	22.09.14		
4	Sources of atmospheric pollution	2	25.09.14		
5	Protection of atmospheric air against pollutants	2	29.09.14		
6	Hydrosphere, sources of its pollution	2	02.10.14		
7	Purification and sanitation of industrial wastewater	2	06.10.14		
8	Oil contaminated water purification technologies	2	09.10.14		
9	Lithosphere, its structure and composition	2	13.10.14		
10	Sources of lithosphere pollution	2	16.10.14		
11	Land protection and monitoring	2	20.10.14		
12	Ecological, social and economic aspects of renewable energy sources	2	23.10.14		
13	Environmental protection against radioactive contamination	2	27.10.14		
14	Pollution sources	2	30.10.14		
15	Global and local pollution	2	03.11.14		
16	Problem of waste and waste management	2	06.11.14		
17	Environmental protection against noise pollution	2	10.11.14		
18	Problem of urban noise	2	13.11.14		
19	Cityscape	2	17.11.14		
20	Monitoring of the atmospheric air	2	20.11.14		
21	Monitoring of water objects	2	24.11.14		
22	Monitoring of lands	2	27.11.14		
23	Radiation monitoring	2	01.12.14		
24	State environmental impact assessment: aims and objectives	2	04.12.14		
25	Principal natural resources of Azerbaijan	2	08.12.14		

1	2	3	4	5
<b>CLASSES</b>				
26	Main environmental problems of Azerbaijan	2	11.12.14	
27	Environmental problems of the Caspian Sea	2	15.12.14	
28	Environmental legislation in Azerbaijan	2	18.12.14	
29	Main aim of the state environmental program	2	22.12.14	
30	Environmental safety of Azerbaijan	2	25.12.14	
		Total: 60 hours		
1	On the air environment situation	2	24.09.14	
2	Sanitary protection zone management	2	08.10.14	
3	Atmosphere pollution calculation	2	22.10.14	
4	Design of air cleaning equipment	2	05.11.14	
5	Water sources treatment methods	2	19.11.14	
6	Radioactive contamination of natural environment	2	03.12.14	
7	Environmental protection against noise pollution	2	17.12.14	
8	Calculation of hazardous substances released during various technological processes	2	24.12.14	
		Total: 15 hours		