

Concept of the online eco-school of the Udmurt State University

«GoGreen with Russian: Urban Sustainable Environment»

Course objectives:

The proposed online course is a project-oriented programme which aims at representing different features of flora, fauna and landscape, climatic and ecological conditions of the Eastern European cities through the example of Izhevsk city in the Udmurt Republic, Russia. Course participants will get skills to evaluate the comfort level of urban environments: they will also be discussing issues, options, and limitations of urban environment management through the case study of their home cities. Students will be able to develop their Russian-speaking skills as well.

Course abstract:

The programme consists of zoom-lectures delivered by the UdSU teaching staff, participants' self-study, preparation and presentation of the final project on the topic of urban environment evaluation and management.

Lecture topics:

- Landscapes, climate and bio-diversity of Eastern European cities (case study of the Kama river region; field observations);
- Separate collection of waste;
- Eco-biotechnologies for assessment and improvement of urban environment;
- Sustainable city planning and management, green city development;
- Evaluation of urban environment comfort level.

Course content:

Course participants will learn how the combination of nature landscape elements forms a matrix defining settlement patterns in a certain place, configuration of transport arteries, industrial and agricultural routines, and even the lifestyle and mentality of the dwellers. They will also see how natural conditions and resources influence social and economic development of a territory.

Climatic patterns and their relation to the degree of air contamination in the Western and Eastern European cities will be explained.

Students will get to know basic mammal and bird species of the Kama river region (the territory of the Udmurt Republic), wild and urban flora of the Udmurt Republic, ecological framework of the territory.

Environmental planning and its major criteria will be discussed. Students will be evaluating the certainty of the ecological forecast. Issue of a single definition of urban territory will be touched. The concepts of advanced 'green' city development and the enhanced comfort level of the urban environment will be introduced. Course attendees will learn about eco-friendly waste treatment systems as one of the factors forming comfortable urban environment and 'green' cities (universities)

At the end of the course, students will produce a project in which they will assess the comfort level of the chosen urban environment under the expert's supervision and consolidate knowledge and skills they will have got throughout the course.

Learning outcomes:

Completion of the course will enable the students to:

- Collect and process data about nature objects in a city;
- Independently conduct field research;
- Evaluate the bio-variety of urban flora and fauna;
- Define relation between natural landscape, business activities and population patterns of a territory;
- Assess climatic conditions of a territory;
- Define sources, types and scale of man-made impact;
- Produce environmental forecast, apply ecological knowledge to solving environmental issues;
- Formulate principles of habitat improvement.

Besides, group interaction aims at developing students' **soft skills** such as:

- Interpersonal skills;
- Communication skills;
- Public speaking skills;
- Presentation skills;
- Team work skills;
- Problem-solving skills.

Programme workload:

3 ECTS* (with self-study)

1 ECTS (lectures only)

*1 ECTS = 24 hours.

UDSU ECO SUMMER SCHOOL

“GOGREEN WITH RUSSIAN: URBAN SUSTAINABLE ENVIRONMENT”

Online delivery (local time: GMT +4)

FIRST WEEK		<i>13.00 – 13.45</i>	<i>14.00 – 15.00</i>	
	Monday 9.08	Opening ceremony <i>UdsU</i>	UDMURTIA IN LANDSCAPE DIMENSION: NATURE. CULTURE. ETHNOS. Aleksy Kashin, Candidate of Geography	Self-study (independent field observations, comparison, assessment)
	Tuesday 10.08	Russian class <i>UdsU</i>	BIODIVERSITY OF THE KAMA REGION: FLORA Nelly Veselkova, Candidate of Biology	
	Wednesday 11.08	Russian class <i>UdsU</i>	BIODIVERSITY OF THE KAMA REGION: FAUNA Mikhail Zgumenov, Candidate of Biology	
	Thursday 12.08	Russian class <i>UdsU</i>	CITY CLIMATE Alsu Semakina, Candidate of Geography	
	Friday 13.08	Russian class <i>UdsU</i>	INFRASTRUCTURE OF SEPARATE WASTE COLLCTION Olga Druzhakina, candidate of engineering sciences	
	Saturday 14.08	Self-study (project work)		
	Sunday 15.08	Self-study (project work)		

SECOND WEEK		<i>13.00 – 13.45</i>	<i>14.00 – 15.00</i>	
	Monday 16.08	Russian class <i>UdSU</i>	ENVIRONMENTAL BIO TECHNOLOGIES Irina Bukharina, Doctor of Biology, Professor	Self-study (project work)
	Tuesday 17.08	Russian class <i>UdSU</i>	ENVIRONMENTAL PLANNING AND MANAGEMENT IN URBAN DESIGN (Green city management) Valeriy Sidorov, Candidate of Geography	
	Wednesday 18.08	Russian class <i>UdSU</i>	ASSESSMENT OF URBAN ENVIRONMENT COMFORT LEVEL (project work) Valeriy Sidorov, Candidate of Geography	
	Thursday 19.08	Russian class <i>UdSU</i>	ASSESSMENT OF URBAN ENVIRONMENT COMFORT LEVEL (project work) Valeriy Sidorov, Candidate of Geography	
	Friday 20.08	Russian class <i>UdSU</i>	PROJECT PRESENTATION Closing ceremony	