

# Natural Capital and Resource Economics

**Academic Level:** BSc

**Credit Value:** 5 ECTS

**Hours in class:** 32 hours

**Lecturer Professor Olga Kudryavtseva**

## **Aim of the course**

This course is devoted to most principal issues of natural resource and environmental economics. It covers the valuation of natural resources and environmental services, elements of project analysis (including social aspects), economics of renewable and non-renewable resources, modern energy markets, the economics of pollution control, and the economics of sustainable development. Course is very dynamic and interactive because of business representatives, experts, researches and policy makers participating in it.

Firstly, this course will reveal some aspects of “true” or “real” value of natural resources and nature itself to help decision makers to make optimal investment decisions. Plenty of companies all over the world require from employees competitions in this sphere. Secondly, the topic of Natural Capital is of special importance for exchanged students because 175 countries have recently adopted a new sustainable development agenda and global agreement on climate change signing the historic Paris Agreement on climate change in 2016. This course is a special opportunity for the students from various countries providing them with useful tools to contribute in their future.

The course is enriched with some interdisciplinary and cross-sectoral issues including the long-time theoretic and practical research of Russian experts as well as with numerous studies from over the world. Students will be acquainted with some useful and practical tools of experimental economics, game theory, input-output analysis, MFA. They will also look at economic incentives for environmental protection, economics of pollution control, and elements of environmental management, ecological risk and damage etc. The concept of sustainable city will also be discussed.

Students will be provided with an opportunity to discuss acute socio-economic-ecological issues, to participate in business games as well as to present their one projects.

## **Course outline**

1. The Economy and the Environment: two parts of a whole.
2. Common pool resources and individual preferences (business game).
3. Valuating the Environmental quality. Economic evaluation of natural resources and ecosystem services. Input-output analysis and MFA.
4. Non-market Valuation of Natural Resources.

5. An Economic analysis of non-renewable Natural resources. Modern Energy Markets.
6. The Transition from Depletable to Renewable Resources.
7. Renewable resource Economics.
8. Water Security.
9. Land and Agriculture. Food Security.
10. Economic incentives for environmental protection.
11. Economic evaluation of recreational areas.
12. The economics of Sustainable Development.
13. Sustainable city. Place branding.
14. Examination.

### **Assessment Methods / Grading**

Grading is based on the assessment of student lecture and seminar attendance (30 units), project presentation (30 units) and written examination (40 units)/totally 100 units.

Scores	
100 - 80	excellent
79 - 60	good
59 - 40	satisfactory
Less than 40	fail