

## SUSTAINABLE DEVELOPMENT

Spring semester, 2018-2019

Coordinator	<b>Nina Pakharkova</b> (Siberian Federal University, Russia)
Credits	2 ECTS (required course), 24 in-class hours
Lecturers	<b>Tatiana Shashkova</b> (Siberian Federal University, Russia)
Level	BSc
Host institution	<b>Siberian Federal University</b> , School of Ecology and Geography
Course duration	January 14 – April 6, 2019

### Summary

*The course examines the main ways of transition to sustainable development at the global, regional and local levels, as well as approaches to implement the principles of sustainable development in the main sectors of social evolution. The syllabus enables students to enhance their integral outlook and social activism, understand clearly the role and mission of environmental specialists in solving modern issues of nature and society development.*

### Target student audiences

Last year BSc students in ecology and environmental management

### Prerequisites

Required courses (or equivalents):

- Economic Theory,
- Ecology,
- Social Ecology,
- Environmental Economics,
- Environmental Management,
- Environmental Impact Assessment.

### Aims and objectives

The goal of course studying is to form students' knowledge and expertise about the establishment of basics and ideas of sustainable development, general objectives and main principles of society evolution in the 21st century.

The tasks of discipline studying.

- To learn the concept of human sustainable development, the state of development and implementation of ideas of sustainable development in different countries and Russia in particular;
- To foster students' capabilities of finding integral solutions to environmental problems taking into account inseparable interrelations with general development problems at the global, regional and local levels.

### Desired course outcomes:

By the end of the course, successful students will:

- know the backgrounds of establishment of sustainable development concept;

- know how to deal with environmental problems integrally, taking into account inseparable interrelations with general development problems at the global, regional and local levels;
- know the basics of the sustainable development concept;
- know the development and implementation status of sustainable development ideas in different countries **and Russia in particular**;
- know how to discuss and to develop solutions to modern issues of sustainable development.

## Overview of sessions and teaching methods

The course will include classroom and distance training using e-learning technologies. The classroom activities will include interactive technologies such as business role-playing, round-table discussions and mini-conference talks. It will begin with an introductory lecture about sustainable developments' concepts and principles and then it will continue with a discussion of the specifics of the implementation of sustainable development goals in different regions within the framework of the workshop. A small part of the course will be devoted to discussion of importance of the environmental education and education for sustainable development. Next classes will comprise consideration of sustainable development aspects in various sectors of the national economy. During this part of the course, students will work independently on their presentations and then discuss them at the workshop and at the e-learning course platform. At the final part of the course, achievements and issues of transition to sustainable development at the global and regional levels will be overviewed. The regional peculiarities and characteristics of sustainable development goals achievement will be considered in details in terms of the Arctic region.

## Course workload

The table below summarizes course workload distribution:

Activities	Learning outcomes	Assessment	Estimated workload (hours)
<b>In-class activities</b>			
Lectures	Understanding theories, concepts, methodology and tools	Class participation	12
Moderated in-class discussions	Understanding various problems of modern society and common problems in environmental management	Class participation and preparedness for discussions	4
In-class assignments for group work	The ability of successful communication for solving debatable issues related to sustainable development.	Class participation and preparedness for assignments	8
<b>Independent work</b>			

Preparation of a presentation for discussion at the seminar	The ability to competently and effectively present the material to the audience and enter into a discussion on topical issues of sustainable development in various areas of the national economy	Presentation quality	12
Discussion of presentations on the e-learning course forum		creative and active contribution to discussion	6
Reading and discussion of assigned papers for seminars and preparation for lectures	Familiarity with and ability to critically and creatively discuss key concepts, tools and methods as presented in the literature	Class participation, creative and active contribution to discussion	30
<b>Total</b>			<b>72</b>

### Grading

The students' performance will be based on the following:

- Level of preparedness for participation in class discussions and seminars (20 %) (from 100 % for active participation and demonstrated familiarity with the course readings to 0 % for completely ignoring in-class discussions);
- Contribution to seminar group assignments (20 %) (from 100% for clearly demonstrated input to 0 % for non-participation);
- Interactive e-course lectures (10%)
- Control testing (10%)
- Quality of the individual presentation (20%)
- Contribution to common project presentation (20%)

### Course schedule

Day	Time	Topic	Lecturer
January 15, Tuesday		Lecture: The historical background to the sustainable development concept	
		Seminar: The discussion of peculiarities of the sustainable development goals implementation in developed and developing countries worldwide. In-class group work	
January 29, Tuesday		Lecture: The role of environmental education and ecological awareness in the human sustainable development.	
		Seminar: role-playing game " The bioethics issues in the human sustainable development" In-class group work	
February 12, Tuesday		Lecture: The sustainable production and consumption. Resources and waste.	
		Seminar: Urban, industrial and transport sustainable development. Mini-conference talks.	

February 26, Tuesday		Lecture: Biological resources. Sustainability and vulnerability of the biosphere.	
		Seminar: Sustainable development of tourism, agriculture and forestry. Mini-conference talks.	
March 12, Tuesday		Lecture: <b>Regional peculiarities of sustainable development goals achievement in terms of the Arctic.</b>	
		Seminar: brainstorm, In-class group work Identification and selection of actual problems of the Arctic region. Project development for possible solutions.	
March 26, Tuesday		Lecture: The International cooperation on sustainable development.	
		Seminar: group presentation. Presentation of group projects on region's development. Discussion.	

### Course assignments

Course assignments will constitute a multi-part project:

- Assignment #1 (in-class) – The triune concept of sustainable development and sustainable development goals
- Assignment #2 (in-class) – role-playing game "The bioethics issues in the sustainable development"
- Assignment #3 – Preparation and submission of individual presentation on the topic of success in achieving sustainable development goals in different sectors of the economy
- Assignment #4 (mostly in-class) – The development of a group project aimed at solving urgent problems of the Arctic region development

To complete the assignments the class will be divided into several groups.

**Assignment #1** contributes to a more detailed study of the specific sustainable development goals and awareness of their importance in order to solve social, economic and environmental issues. The result of the first task is the current situation analysis showing the sustainable development goals achievement in the regions (countries) with different levels of social development.

**Assignment # 2** performs in the format of a model game situation. This task trains capabilities to find and make compromise decisions when solving ambiguous issues in the field of human sustainable development.

**Assignment # 3** implies individual work on presentation to highlight examples of successful solutions for sustainable development taken in various fields of national economy.

**Assignment # 4** includes group work where identification and ranking of development problems at the regional level and consideration of the possibilities of solving them by means of successful models examined in the previous assignment are carried out. Using the effective presentation skills, the group should demonstrate to the audience the viability of proposed solutions from the social, economic and environmental aspects of the human sustainable development.

## Literature

Tomislav Klarin The Concept of Sustainable Development: From its Beginning to the Contemporary Issues. Zagreb International Review of Economics & Business, Vol. 21, No. 1, pp. 67-94, 2018

Textbooks for Sustainable Development - A Guide to Embedding. Technical Report UNESCO MGIEP 2017. – 189 p.

Daryana Maximova Sustainable Development of the Russian Arctic Zone: Challenges & Opportunities. // Arctic Yearbook 2018 - Arctic Development, In Theory & In Practice. – 16 p.

Urban Sustainability in the Arctic. Visions, Contexts, Challenges. / edited by Robert W. Orttung and Marlene Laruelle. - Washington / DC: IERES, 2017. – 496 p.

United Nations Development Programme <https://www.undp.org>

Global Environment Outlook <https://www.unenvironment.org/global-environment-outlook>

The Sustainable Development Goals Report 2017 <https://sdgactioncampaign.org/wp-content/uploads/2017/07/TheSustainableDevelopmentGoalsReport2017.pdf>

The 2030 Agenda for Sustainable Development  
<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

Arctic Council <https://arctic-council.org/index.php/en/>