

Course code	Course group	Volume in ECTS credits	Course valid from	Course valid to	Reg. No.
APL4010	c	5			

Course type (compulsory or optional)	Compulsory
Course level (study cycle)	I cycle
Semester the course is delivered	Spring
Study form (face-to-face or distant)	Face-to-face

Course title in Lithuanian

APLINKOS IŠTEKLIAI IR JŲ VALDYMAS

Course title in English

ENVIRONMENTAL RESOURCE MANAGEMENT

Short course annotation in Lithuanian (up to 500 characters)

Kursas skirtas įgyti žinių apie aplinkos gamtinių išteklių funkcinę sampratą, klasifikavimą bei vertę, atsinaujinančius ir neatsinaujinančius išteklius, jų tarpusavio sąveiką bei valdymą, aplinkos išteklių naudojimo pasaulines ir regionines problemas darnaus vystimosi požiūriu.

Short course annotation in English (up to 500 characters)

The course is aimed to acquire knowledge about functional definition, types and values of environmental resources, renewable and non-renewable resources, and their interaction, management of resources, global and regional problems of the use of environmental resources from point of sustainability.

Prerequisites for entering the course

Basic Ecology, Environment and Development

Course aim

The course is aimed to acquire knowledge on environmental resources and their classification, main resources at global scale and in Lithuania, principal/basic concepts of assessment, evaluation and rational management of environmental resources.

Links between study programme outcomes, course outcomes and criteria of learning achievement evaluation

Study programme outcomes	Course outcomes	Criteria of learning achievement evaluation
1. Explain the main local, regional and global environmental issues caused by human activity.	1. To explain the definition of environmental resources, to define the types of resources and main factors determining their use.	Explained functional definition of main environmental resources, their classification and significance, analyzed the factors determining the use of resources.
	2. To define the interaction between environmental resources.	Defined the interaction of environmental resources and their environmental role.
2. Analyze short-term and long-term environmental and	3. To analyze the main problems of environmental resources use.	Analyzed the main local, regional and global problems of resources use and their reasons.

climate changes, the main trends and their reasons from the point of sustainability.	4. To assess the impact of environmental pollution and climate change to the environmental resources.	Assessed the impact of environmental pollution and climate change to the environmental resources, and analyzed preventive and protective measures for the mitigation of negative impacts.
3. Ground sustainability-based political, administrative, economic, and technical environmental impact mitigation measures.	5. To analyze the main trends of environmental resources use from the point of sustainability.	Analyzed the main problems of environmental resources use from the point of sustainability.
	6. To ground sustainability-based political, administrative, economical and technical measures for mitigation negative impact on environmental resources.	Grounded measures necessary for sustainable management of renewable and non-renewable environmental resources.

Links between course outcomes and content

Course outcomes	Content (topics)
1. To explain the definition of environmental resources, to define the types of resources and main factors determining their use.	1. Functional definition of environmental resources, classification and continuum of resources, resource significance. 2. Economical, ecological and social factors of environmental resource use, environmental negative impacts. 3. Environmental resources scarcity, sustainable use and restoration.
2. To define the interaction between environmental resources.	4. Interaction of environmental resources and their impact to environment state, biodiversity and landscape stability.
3. To analyze the main problems of environmental resources use.	5. Main problems of environmental resources use. Environmental resources and scientific-technical progress.
4. To assess the impact of environmental pollution and climate change to the environmental resources.	6. Impact of environmental pollution to environmental resources, monitoring, preventive and protective measures of impact mitigation. Climate change and environmental resources.
5. To analyze the main trends of environmental resources use from point of sustainability.	7. Earth's spheres (lithosphere, hydrosphere, biosphere, atmosphere), classification of non-renewable environmental resources. Air as a resource and its protection. 8. Water resources classification, rational use and protection. Fishery resources: determining environmental factors, monitoring, protection and management. 9. Functional definition of soil, soil classifications, soil significance to the environment and human activity, agricultural systems and their evolution/history, ecological/organic agriculture, forest soils, protection and management of soils. 10. Classification of renewable energy resources, solar, wind, biomass, biogas, hidro and geothermal energy. Mineral and organic resources in Lithuania. 11. Global and Lithuanian forest resources, main forest components/main components of forest stands, forest inventory, rational use of forest resources and sustainable forest management, non-wood forest products, forest protection.

	12. Grassland classification, factors determining economic value of grassland, ecological significance, use and protection.
6. To ground/substantiate sustainability-based political, administrative, economical and technical measures for mitigation negative impact on environmental resources.	13. International and social problems of environmental resources management, concept of environmental resources sustainable management. 14. Sustainability-based measures of environmental resources management.

Study (teaching and learning) methods

Teaching methods: Explaining, answers to questions disquisition, consulting

Learning methods: Selfpreparation to seminars, Search for information, analysis of literature, preparation of information on selected topics,.

Methods of learning achievement assessment

Open written test, evaluation of presented topics, evaluations of participation in seminars.

Distribution of workload for students (contact and independent work hours)

Lectures	45 hours
Seminars	22.5 hours
Group work	
Laboratory work	
Practical work	
Individual students work	62.5 hours
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Total:	130

Structure of cumulative score and value of its constituent parts

Seminars – 15 %, Presentations – 10%, Mid – term exam – 25%, Exam – 50%.

Recommended reference materials

No	Publication year	Authors of publication and title	Publishing house	Number of copies in		
				University library	Self-study rooms	Other libraries
<i>Basic materials</i>						
1	2001	R. Ozolinčius. Aplinkos ištekliai. Įvadas.	VDU leidykla	60	10	
	2005	R. Ozolinčius. Aplinkos ištekliai. Oras, dirvožemis, vanduo.	VDU leidykla	60	10	
1.	2007	R. Ozolinčius. Atsinaujinantys energijos ištekliai.	VDU leidykla	60	10	

4.	2008	R. Ozolinčius. Darni miškininkystė.	VDU	Internet		
5.	2010	FAO forestry paper 163. Global Forest Resources Assessment 2010 (FRA 2010)	FAO UN	of www.fao.org/forestry/fra2010		

Course programme designed by

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