

Course description

Tempus project EcoBRU

Course name
Economic evaluation of environmental issues in the region (in the teaching of social science and economic geography, local history (general education), economy (Vocational Education) in 10-11 high school)

Expected lecturer qualifications
(the necessary experience, expertise, methodological knowledge, technology, etc.) Teaching experience subjects at least one year. Computer skills (user level) Knowledge of methods of general education, conducting lectures, interactive sessions, workshops. Possession of pedagogical and information technologies.

Lecturer	Educational Institution
Course Director: Petrova Olga Viktorovna Other team members:	Nosov Magnitogorsk State Technical University

Deficit definition
Systematic knowledge of the legal framework for the protection of the environment. Knowledge of modern approaches to ecological and economic evaluation of environmental performance of companies in a particular region, taking into account the specifics of production. Knowledge of modern framework for assessing market potential in the region generated waste. Lay the groundwork for environmentally directed student behavior in everyday life with the transformation of the results of their behavior on the environment and economy of the region as a whole.

Required space in the training	Course level	Course type
The course can be used as a standalone module or after completion of the program course...	In courses didactic course units have used. For the development of the course the students, it is desirable to have knowledge based economy, the environment and local history.	Professional development. Course format in Moodle – «Structure».

Target group	Duration	Languages
School teachers of general and professional education	36 hours	Russian

Conditions	
Conditions: Computer room availability with access to the Internet, providing interactive learning tools, the presence of trained computer with video conferencing.	Other requirements (if applicable) The basic literature existence, its availability in electronic libraries.

Ladderpoints (1 un.=36 h)	Total Hours	Class work	Independent work (h)
1	36	26	10

Topicality for EcoBRU**

General environmental education:

Methods knowing of economic evaluation ecology of the region is primarily aimed at the formation of ecological culture. The ability to produce a comparison of damage to the environment, and the cost of implementation of environmental measures. Market potential understanding of eco-efficient technologies.

Course objectives

Laying foundations of ecological and economic orientation of the region. Skills and abilities analysis acquisition of the legal literature in the field of environmental protection - from the understanding of the sources and types of pollution to the economic results of their influence. Knowledge deepening of teachers to better students preparing, both general and specialized education, horizons students expanding, understanding progressing of the relationship of the economic potential of the region and the state of the environment, the formation of educational competency skills, improve environmental education improving.

	Educational objectives of the course (see list of verbs used for educational objectives formulating)	Methods and forms of educational process organization	Monitoring forms and evaluation
Special knowledges	<p>Remember basic information about the methods of economic evaluation;</p> <p>Represent a global perspective of ecology of the region;</p> <p>Learn advanced strategies and approaches to the methods of evaluating the effectiveness of environmental protection measures;</p> <p>Determine priorities for improving environmental and economic efficiency of the region;</p> <p>Methods reproduction of ecological and economic assessment of the effectiveness of solutions for specific environmental problems in the field of environmental protection;</p> <p>Generate basic direction</p>	<p>Interactive learning with a computer:</p> <p>Work with text of distance course with the creation of its own notes.</p> <p>Video review of the interaction of different legal acts in the field of ecology.</p> <p>Reading in a distance course scientific and journalistic presenting articles.</p> <p>Online discussions.</p> <p>Preparing for classes in the computer lab and to the development of the material via the guidelines.</p> <p>Performing in the computer lab assignments specified in methodological recommendations with the course materials.</p>	<p>Tasks completing for the input of intermediate and final tests (Passed 60% points of the total).</p> <p>Participation in communication teacher - student, helps to clarify the understanding of the basic theoretical positions apprentice course and systematize knowledge of the controlled section of the program.</p> <p>Check the results of independent assignments. (Passed for the answer, showing not only the result, but the process achieving the result with reference to the previously studied material).</p>

of the effective uses of waste generated in the region in terms of assessing their market potential

Methodological and didactic competence

Interpret the experience of the environment protection;
Explain the ecological and economic substance of environmental activities;
Explain the importance of eco-efficiency of vital functions in the region;
Apply environmental and economic terms;
Illustrate the lecture material with practical examples;
Make clear the necessity to assess environmental performance of industrial enterprises in the region;
Implement an interdisciplinary approach in the analysis and decisions justification;
Classify the facts and phenomena related with changes in environmental legislation;
Classify the types of negative impacts on the environment;
Make conclusions about the causes of changes in the ecological status of the region;
Project the current state of the region's ecology on its sustainable development in the future;
Lead a discussion about the problems of the region's ecology, environmental management, the efficiency of technological solutions;
Describe the international experience in the field of efficiency of environmental protection measures;
Simulate the effects of environmental degradation in the region based on an analysis of available practice;
Develop a program of training courses with the

The program lecture development on the subject includes materials about the procedures of ecological and economic evaluation.

Prepare a presentation which will be available revealing for students of the school the point environmentally sustainable directional development in the region of 5-10 slides (on the instructions of the curator).

Online conference.

(Credit for active participation in the conference with a report and presentation to the developed lectures and discussions on the work of other participants).

inclusion of environmental topics.

Междисциплинарные компетенции, социальные компетенции

Demonstrate the capabilities of the basic sciences for solving applied problems of ecological and economic assessment of environmental activities in the region;
Use knowledge and skills from different disciplines to assess the effectiveness of the protection of the environment from anthropogenic influence for the formation of an ecological orientation behavior in the future;
Use the conceptual apparatus and vocabulary communicating sciences and industries - understanding of the links between the different disciplines and psychological readiness to apply knowledge of relevant disciplines in the study of others;
Demonstrate a conscious positive attitude for environmental directivity of life in the region.

Online discussion with experts from different fields of knowledge.

Forms of control and assessment			
Control form	Percentage ratio	Dates	Criteria assessment
Testing	40		60% correct answers – credit.
Creative activity	20		Seminar development on the profile subject of teacher passing retraining, with the inclusion of her materials on environmental and economic efficiency of environmental activities on the example of a company (industry) in the region. Presentations preparation available reveals the essence of environmental materials for students in the school. 5-10 slides - credit.
Online conference	20		Active participation in an online conference with a report and presentation developed lectures, presentations, discussion of other participants - credit.
Online discussion	20		Actively participate in discussions with professional terminology - credit.

Terms and conditions of access to monitoring and assessment of knowledge (exam)

Successful development of learners of all elements of the program, performance of assessment knowledge criteria

Document type certifying the successful course viiting (Certificate?)

Certificate

Organizational guidelines**Place:**

Computer class, personal computers for students.

The recommended number of participants**10-15****Literature and educational materials**

Author	Year	Title	Pages number	Place of publication, publisher or an online link
Main literature				
Decree of President of Russian Federation		« About the State Strategy of the Russian Federation for Environmental Protection and its sustainable development »		Information, intelligence and legal systems by type consultantplus.ru
Law of Russian Federation	2002	«About environmental protection »		Information, intelligence and legal systems by type consultantplus.ru
Government of Russian Federation	2002	Environmental doctrine of Russian Federation		Information, intelligence and legal systems by type consultantplus.ru
Further literature				
Госплан СССР, Госстрой СССР и Президиум АН СССР	1983	«Temporary typical method of determining the cost-effectiveness of the implementation of environmental protection measures and assess the economic damage to the national economy of environmental pollution»		Information, intelligence and legal systems by type consultantplus.ru
A.S.Astakhov, V.E.Zaidenvarg, M.E.Pevzner, V.A.Harchenko	2002	Economic and legal foundations of nature		Moscow, publisher MSTU
Moskalenko A.P.	2000	Ecology and environmental economics.		Moscow