

Course description

Tempus project EcoBRU

| Course name |
|---|
| 2 Environmental problems of the regions and their solutions |

| Lecturer | Educational institution |
|---|-------------------------|
| Course Director: Surovtseva O. Other team members: Sultanov N. | PSTU |

Deficit definition

Relevance of the environmental knowledges due to aggravation interrelation between society and nature be embodied in at all known sciences and school disciplines.

Discrete role in the liquidation of ecological illiteracy belongs comprehensive school because at school potential user of subsurface resources be given by educational background.

At the present time society is aware of that the main factors of sustainable growth be are the safeguards environmental safety.

Consequently teachers are necessary the ecological education as promising direction of creation of harmonic relations between society and nature.

| Required space in the training | Course level | Course type |
|--------------------------------|--------------|-------------|
| Advanced training | | MOODLE |

| Target group | Duration | Languages |
|-----------------------------------|----------|-----------|
| teachers of comprehensive schools | 45 | Russian |

| Conditions | |
|-----------------------------|---|
| Conditions: Internet | Other requirements (if applicable) - |

| Ladder Points (1 un.=36 h) | Total hours | MOODLE | Independent work (h) |
|-------------------------------|-------------|--------|----------------------|
| 1 | 36 | 27 | 9 |

| Topicality for EcoBRU |
|---------------------------------|
| General environmental education |

| Themes / Content | MOODLE | Hours and tasks for independent work |
|--|----------|--------------------------------------|
| Greening of school education <ul style="list-style-type: none"> - Environmental education in schools: goals, objectives, forms and methods - Possibilities of the environmental reorientation of teaching in the secondary school - The concept of ecology as a science of the house, in which a person lives - The history of relations between human and nature. Environmental | 9 | 3 |

| Themes / Content | MOODLE | Hours and tasks for independent work |
|--|--------|--------------------------------------|
| activities of mankind. | | |
| Assessment of the environmental situation in the region <ul style="list-style-type: none"> - Means of assessment of the environmental situation - Urban environmental problems and their solutions (noise, air, soil and water pollution, waste and recycling, electromagnetic radiation, transport, etc. - Organization of environmental activities in the Baltic sea area and the environmental problems of the Baltic States. "The action plan of HELCOM at the Baltic Sea" | 9 | 3 |
| Elimination of the negative impact of urban transport on the environment <ul style="list-style-type: none"> - Analysis of possible options for public transport: their advantages and disadvantages. - Documents regulating the negative impact on the environment (regulations of the Russian Federation and foreign ones) - Analysis of ways to reduce the negative impact of urban transport on ecosystems used in Russia and abroad - Constructive solutions in the field of urban transport infrastructure to reduce the negative impact on the environment - The procedure of conducting experimental studies on the impact of transport on the environment | 9 | 3 |
| | 27 | 9 |
| TOTAL | | 36 |

| Forms of control and assessment | | | |
|---------------------------------|------------------|---|---|
| Control form | Percentage ratio | Dates | Criteria of assessment |
| Test`s question (MOODLE) | 30 | within the framework of learning course | more than 59 % |
| Lecture on-line (MOODLE) | 20 | | more than 59 % |
| Abstract | 20 | | Conciseness, consistency, design, literacy |
| Credit | 30 | | "Credit"- student shows good knowledge of educational material on the topics of the course. While logical and consistent presented material, reveals the meaning of the question, gives the right answers to additional questions. «Fail» - listener is difficult respond to questions raised, give partial answers to the questions from the basic literature recommended for the course. |

| Terms and conditions of access to monitoring and assessment of knowledge (exam) |
|---|
| Test`s question (MOODLE) & Lecture on-line (MOODLE) more than 59 % + Abstract |

| Document type certifying the successful course visiting (Certificate?) |
|--|
| certificate |

| Organizational guidelines |
|---------------------------|
|---------------------------|

Place: www.pgups-tempus.ru

Example: <http://www.pgups-tempus.ru/course/view.php?id=155>

The recommended number of participants: no regulate

Literature and educational materials

| Author | Year of publishing | Title | Pages number | Place of publication, publisher or an online link |
|--------|--------------------|-------|--------------|---|
|--------|--------------------|-------|--------------|---|

Basic literature

1. Molchanova N. V. The formation of the social-ecological competence of students // Additional education and training.-2010. - № 12. - p. 20-22
2. Feraru G. S. Environmental management: textbook for bachelor and master degree students / G. S. Feraru. - Rostov: Publishing house Phoenix, 2012. – 528 p.
3. Urban rail transport: innovative technologies." Paraskevopulo Y. G., Ilyin A. A., Kulinich N. V., scientific, industrial and technical journal "Road and track facilities" 5.2013/Ministry of Railways of Russia, RITOZH. M. - Transzheldorizdat.

Additional resources

1. Experience of environmental education and training of schoolchildren in the Leningrad region: [collection of materials] // Geography and ecology in the school of the XXI century. – 2008. - № 10.
2. University textbook: "Ecology" / N. I. Nikolaykin, N. E. Nikolaykina, O. P. Melehova. - 3rd edition, revised and enlarged - M.: Drofa, 2004. – p. 624.
3. Ecological justification of design solutions [Text] / E. S. Svintsov, O. B. Surovtseva, M. V. Tishkina - Moscow: publishing house of the UMC ZHDT (Route), 2006
4. Convention for the protection of the marine environment of the Baltic sea area, 1992.
5. Serov G. P. "Environmental audit and environmental audit activities"; DELO, 2008, ISBN 978-5-7749-0490-7
6. Sergeeva T. V. Environmental audit. Textbook for higher schools. GRIF UMO of RF; UNITY, 2005, ISBN: 5-238-00844-9
7. Federal law of the Russian Federation dated November, 8 2007 No. 259-FL "Statute of road transport and urban land-electric transport"
8. Oveshnikov E. V., Fishelson M. S., "Urban transport"
9. "Urban transport" Yudin V. A., Samoilo D. S.
10. "New transport systems in urban public transport" D. Hebarda translation from Slovak Ph. D. Cosmina V. V.
11. Federal law dated 10.01.2002 № 7-FZ (edition dated 24.11.2014, with changes from 29.12.2014) "On environmental protection" (with changes and amendments, which came into force from 01.01.2015) (10 January 2002)
12. Federal law of November 23, 1995 N 174-FL (version effective March 31, 2015) "On ecological expertise" (as amended on February 12, 2015)
13. Abstracts of the conference "Technosphere and environmental safety on transport» IV International scientific-practical conference on October 22-24 2014. in FSBEI HPO of PSTU of Emperor Alexander I
14. Ecological safety of transport flows. / Edited by A. B. Djakov. – M.: Transport, 1989.
15. Ecoculture. In search of a way out of the ecological crisis. / Edited by N. N. Marfenin. – M.: MNEPU, 1998.
16. Konstantinov V. M. Ecological bases of nature management. - M., 2001.

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