



Syllabus Course Program



International Cooperation and Grant Writing in Environmental Protection

Specialty

101 – Ecology

Educational program

Engineering ecology

Level of education

Master's level

Semester

1

Institute

Institute of Education and Science in Mechanical Engineering and Transport

Department

Chemical Engineering and Environment Protection (154)

Course type

Special (professional), Mandatory

Language of instruction

Ukrainian, English

Lecturers and course developers



Tetiana Tykhomyrova

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PhD, associated professor

Work experience - 14 years. Author and co-author of more than 50 scientific and educational works. English and Ukrainian free speaking and writing. Leading lecturer in the disciplines: "Sustainable development" and "Grant writing and international cooperation in ecology" (in English), "Hydrology", "Soil science"

[More about the lecturer on the department's website](#)

General information

Summary

The discipline is aimed at mastering the finding donors methodology and writing grant applications, project management, grant reporting in the field of environmental protection

Course objectives and goals

Learn how to fill out grant applications in English, learn how to search funds and donors to implement your own projects in the field of environmental protection, learn the basic requirements for reporting on used grant supporting.

Format of classes

Lectures, practical work, calculation task, consultations. Final control - exam.

Competencies

GC-1. The ability to learn and master modern knowledge.

GC-5. Competence to communicate in a foreign language.

GC-6. Competence to search, process, and analyze information from various sources

SC-2. Ability to apply interdisciplinary approaches in critically analyzing ecological problems.
SC-5. Ability to present knowledge and personal conclusions to both experts and non-experts.
SC-7. Ability to organize work related to the assessment of the environmental status, protection of the environment, and optimization of nature management, in conditions of incomplete information and conflicting requirements.
SC-8. Ability for self-education and professional development based on innovative approaches in the field of ecology, environmental protection, and balanced nature management.
SC-9. Ability to independently develop ecological projects through the creative application of existing and generating new ideas.

Learning outcomes

RE-1. Know and understand the fundamental and applied aspects of environmental sciences.
RE-7. Be able to communicate in a foreign language in scientific, production, and socio-economic spheres of activity.
RE-11. Be able to use modern information resources on ecology, nature use, and environmental protection.
RE-14. Apply new approaches to develop decision-making strategies under complex unpredictable conditions.

Student workload

The total volume of the course is 90 hours (3 ECTS credits): lectures - 16 hours, laboratory classes - 16 hours, self-study- 58 hours.

Course prerequisites

To successfully pass the course, you should have knowledge of the following disciplines: "Ecological principles of sustainable development of the country", "Innovative entrepreneurship and management of startup projects"

Features of the course, teaching and learning methods, and technologies

Lectures are conducted interactively using multimedia technologies. Practical classes use reproductive and problem-solving learning methods and focus on the technical features of filling out grant applications, as well as building teamwork.

Program of the course

Topics of the lectures

Topic 1. International cooperation in the field of ecology and environmental protection .

The main goals of international cooperation in the field of ecology and environmental protection. Global environmental problems that are solved thanks to international cooperation. Local environmental problems that are solved thanks to international cooperation.

Topic 2. Basics of project management..

What is a project? Types of projects. Project life cycle. Project success. Project integration. Project participants and environment. Principles of project team formation. Territorial cooperation. Components of a successful partnership.

Topic 3. Work on the project.

Stakeholder analysis. Analysis of problems. Formulation of goals. Project implementation plan. Planning of resources and expenses. Risk management. Project monitoring, evaluation and audit. Logical and structural matrix of the project.

Topic 4. Sources of funding for grant applications.

Search for potential donors. Characteristics of grant competitions. Informational sources of grantwriting.

Topic 5. Methodology of writing a grant application.

Writing a project application. Signing grant agreements. Reporting on project implementation.

Topic 6. Additional opportunities for financing local and regional development projects.

State Fund for Regional Development. Subsidies from the state budget to local budgets of united territorial communities for the formation of their infrastructure.

Topic 7. The concept of startups, crowdfunding and business incubators as alternative sources of project financing.

Crowdfunding. A startup and its difference from a grant. Principles of business incubators..

Topics of the workshops

Topic 1. Analysis of projects implemented in Ukraine involving international financial assistance over the past 5 years. Analysis of the reasons for the rejection of a certain category of applications.

Topic 2. Grantwriting terminology in English. Stable language structures for grant applications.

Topic 3. Team training. Selection of project team members.

Topic 4. Features of taxation and accounting of grant money.

Topic 5. SWOT analysis of the project..

Topic 6. Filling out a grant application

Topics of the laboratory classes

Laboratory classes is not provided in this course. |

Self-study

The course involves the implementation of an individual calculation task in the form of filling out a real grant application and evaluating the project using a SWOT analysis |

Course materials and recommended reading

Compulsory

1. K. Mantic How to write a grant application start writing a grant proposal for education - электронный ресурс

<https://www.solidprofessor.com/blog/how-to-write-a-grant-application-start-writing-a-grant-proposal-for-education/>

2. Grant writing bases /электронный ресурс. – код доступу

<https://grantsgovprod.wordpress.com/category/learngrants/grant-writing-basics/>

3. How to write a grant proposal: a step-by-step guide /B.Fagan - электронный ресурс

<https://www.pandadoc.com/blog/grant-proposal/>

Recommended

1. Methodological guidance for a practical classes from the course "International cooperation and grantwriting in ecology" [Electronic resource] : for students specialty 101 "Ecology", 183 "Environmental protection technologies" all forms of education, including foreign students / comp.: T. S. Tykhomyrova, O. V. Shestopalov, O. S. Makhonina ; National Technical University "Kharkiv Polytechnic Institute". – Electronic text data. – Kharkiv, 2023. – 63 p.

<https://repository.kpi.kharkov.ua/handle/KhPI-Press/72791>

2. Methodological guidance for a practical work "Grant and start-up applications correspondence to sustainable development goals" : on the courses "Ecology" for students of specialty 185 "Oil and gas engineering and technologies" of all educational forms / comp.: T. S. Tykhomyrova, O. V. Shestopalov, T. B. Novozhylova ; National Technical University "Kharkiv Polytechnic Institute". – Kharkiv : FOP Panov A. M., 2023. – 30 p.

<https://repository.kpi.kharkov.ua/handle/KhPI-Press/72794>

Assessment and grading

Criteria for assessment of student performance, and the final score structure

100% of the final grade consists of assessment results in the form of an exam (40%) and ongoing assessment (60%).

Exam: written task and oral answer

Current assessment: practical work - 20%, calculation task - 25%, control work - 15%.

Grading scale

Total points	National	ECTS
90-100	Excellent	A
82-89	Good	B
75-81	Good	C
64-74	Satisfactory	D
60-63	Satisfactory	E
35-59	Unsatisfactory (requires additional learning)	FX
1-34	Unsatisfactory (requires repetition of the course)	F

Norms of academic integrity and course policy

The student must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": to demonstrate discipline, good manners, kindness, honesty, and responsibility. Conflict situations should be openly discussed in academic groups with a lecturer, and if it is impossible to resolve the conflict, they should be brought to the attention of the Institute's management.

Regulatory and legal documents related to the implementation of the principles of academic integrity at NTU "KhPI" are available on the website: <http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/>

Approval

Approved by

2023/08/31



Head of the department
Oleksii SHESTOPALOV

2023/08/31



Guarantor of the educational
program
Musii TSEITLIN