

H.S. SKOVORODA KHARKIV NATIONAL PEDAGOGICAL UNIVERSITY

**NON-GOVERNMENTAL ORGANIZATION
“EDUCATION OF THE XXI CENTURY”**

APPROVED by the Academic Council of H.S. Skovoroda Kharkiv National Pedagogical University protocol No. dated 25.05.2022 Chairman of the Academic Council, Prof. Yurii Boichuk	APPROVED by the Research and Educational Council of the Research and Educational Project “Intellect of Ukraine” protocol No. 5 dated 25.05.2022 Head of the Research and Educational Council, Scientific Supervisor of the Research and Educational Project “Intellect of Ukraine,” Doctor of Pedagogical Sciences, Professor of H.S. Skovoroda Kharkiv National Pedagogical Univers Prof. Iryna Gavrysh 
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**PROGRAM
OF PROFESSIONAL DEVELOPMENT COURSES
FOR TEACHERS OF GEOGRAPHY
WHO WORK / WILL WORK IN 10–11th GRADES OF
THE RESEARCH AND EDUCATIONAL PROJECT
“INTELLECT OF UKRAINE” IN THE CONTEXT
OF WAR / POSTWAR STATE**

Ukraine_Kharkiv

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INTRODUCTION

DEVELOPED on the basis of the provisions of the current legislation by the project team of the Research and Educational Project “Intellect of Ukraine” (hereafter referred to as “the Project”):

1. Iryna Gavrysh, Scientific Supervisor of the Project, Doctor of Pedagogical Sciences, Professor, Professor of the Department of Primary and Vocational Education at H.S. Skovoroda Kharkiv National Pedagogical University.
2. Oleksandr Shcherbakov, Deputy Project Supervisor for the organization of the educational process in general secondary education institutions working under the Project, Honor Worker of Education of Ukraine, Headmaster of Kharkiv Gymnasium No. 169.
3. Olha Lysenko, Deputy Project Supervisor for organizational and methodological support of the Project implementation at secondary (basic) schools, Deputy Headmaster for Educational Work at Kharkiv Gymnasium No. 169.
4. Serhiy Goga, Member of the Project authors’ team, Teacher of Geography at Kharkiv Gymnasium No. 46 named after M.V. Lomonosov.

REVIEWS from external stakeholders:

1. Review by Valentyna Vitiuk, Deputy Director for Scientific and Methodological, and Educational Activities of the Volyn Institute of Postgraduate Pedagogical Education, Candidate of Pedagogical Sciences, Associate Professor.
2. Review by Alla Pecheniuk, Head of the Methodological Support Laboratory of the Municipal Institution “Zhytomyr Regional Institute of Postgraduate Pedagogical Education” of the Zhytomyr Regional Council.

EXPLANATORY NOTE

I. General provisions

The professional development course program for teachers of Geography (hereafter referred to as “the Program”) is designed for those who currently work or will work with students in 10–11th grades of the “Intellect of Ukraine” Research and Educational Project in the conditions of war / postwar times. The Program is developed in accordance with the regulatory framework for the educational system in Ukraine, taking into account the axiological imperatives to update content, methods, forms, and means of the national education system in line with the “New Ukrainian School” Concept, the 21st-century civilizational challenges, the main provisions of STEM education and humanistic pedagogy, the achievements of modern psychology, pedagogy, and age physiology. The Program also considers the unique organizational requirements of education process during war / postwar times.

Program relevance. The position of Geography in the school education system is determined by its role in the formation of educational, social, general cultural, and life competencies, as well as the civil society values, in the students’ personal development with a focus on further education, in the formation of creativity and critical thinking, and creative abilities.

The sphere of education, just like all other spheres of society, has experienced significant transformations during the period of martial law. In the context of social upheavals, including the military aggression in Ukraine, the efficiency of teacher training programs has decreased. Currently, the most urgent educational issues include:

- 1) insufficient training of teachers in maintaining their own psychological and emotional stability in stressful situations and providing psychological first aid and emotional support to students;
- 2) teachers’ unawareness of effective ways to make up for educational losses and their unpreparedness to use tools that give students the right to choose and provide opportunities to show their strengths and abilities;
- 3) unpreparedness of educators to implement the main provisions of STEM education in the educational process and training of STEM-educated qualified specialists;
- 4) organization of training in the context of remote education;
- 5) Ukrainian educators are not equipped with effective technologies for developing students’ ability to learn as a key competence of today.

This has resulted in the emergence of a new social order for a new generation of teachers capable of effective professional activity in wartime / postwar conditions, who are able to quickly adapt and recover from stressful situations, changes, problems, failures, disappointments, or prolonged stress, thereby safeguarding their physical and mental well-being and, most importantly, human dignity.

Regulatory framework of the Program. The program is developed in accordance with the provisions of the Laws of Ukraine “On Education” (as amended), “On Complete General Secondary Education” (as amended); on the basis of the State Standard of Basic Secondary Education approved by the Resolution of the Cabinet of Ministers of Ukraine No. 898 dated 30.09.2020; on the basis of the Concept for the Implementation of the State Policy in the Field of General Secondary Education Reform “New Ukrainian School” for the period up to 2029 (as amended); the Procedure for Professional Development of Pedagogical and Scientific-Pedagogical Workers (as amended) approved by the Resolution of the Cabinet of Ministers of Ukraine No. 800 dated 21.08.2019, the National Qualifications Framework (as amended); the orders of the Ministry of Education and Science of Ukraine No. 805 dated 09.09.2022 “On Approval of the Regulation on Certification of Pedagogical Workers” (as amended) registered with the Ministry of Justice of Ukraine on December 21, 2022 under No. 1649/38985, and No. 734 dated 29.06.2021 “On conducting an experiment about the “Creation and implementation of a model of the national educational technology park to improve the quality of preschool and general secondary education with the participation of educational institutions working on the Research and Educational Project “Intellect of Ukraine” during June 2021 to December 2030”; and other regulatory acts.

The target audience of the Program: teachers of Geography who work / will work in 10–11th grades of the Research and Educational Project “Intellect of Ukraine” in the context of martial law / postwar period.

The goal of the Program is to improve the development of the system of key and professional competencies for teachers of Geography, which are necessary for the effective organization of the educational process in the context of martial law / postwar period.

The main objectives of the Program are:

- promoting the implementation of the social order to enhance the quality of competency-based natural science education, as prescribed by the normative legal acts in the national education system in general and basic education in particular in the context of martial law / postwar period;
- creating conditions for course participants to reconsider the role of the Geography teacher at the current stage of Ukraine’s struggle for independence;
- formation of a system of knowledge, skills, values, and attitudes in course participants as components of key and professional competencies, which will allow them to carry out teaching activities at a high professional level in the context of remote learning.

**Expected learning outcomes for Geography teachers,
who work / will work in 10–11th grades
of the Research and Educational Project “Intellect of Ukraine”
in the context of martial law / postwar period**

Table 1

Knowledge and comprehension	– methodology of scientific knowledge and current trends in the education development in Ukraine; – social and legal foundations, legislative acts in the educational sphere in general and natural science education in particular; – peculiarities of the methodology of teaching Geography to students depending on their age; – the main mechanisms for implementing the competency-based approach in natural science education; – concept of inclusive natural science education; – features of the educational program of the Research and Educational Project “Intellect of Ukraine”; – pedagogical technologies used in Geography lessons according to the “Intellect of Ukraine” Project. In the context of the Russian-Ukrainian war, these components of knowledge <u>were specified and supplemented</u> in the Course Program as follows: – education in Ukraine under martial law and in the postwar period; – remote education as the main form of education in war and postwar times; theoretical and methodological, and technological aspects of its effectiveness; – emotional support and psychological first aid to students as the most important task of educators in the context of the Russia’s invasion and in the postwar period; – formation of the key competence “ability to learn” as a priority for the implementation of the competency-based approach in education in war and postwar times; – innovative technologies of remote education aimed at bridging the gaps in students’ knowledge, skills, and abilities caused by the consequences of Russia’s aggression; – STEM education and its importance in the development of independent Ukraine and preventing a Russia’s invasion in the future.
Developed skills	– to use basic international geographical terminology; – to carry out professional activities on the basis of competency-based, personality-oriented, innovative, and integrated approaches; – to organize a culturally and linguistically appropriate educational

	and developmental environment when teaching Geography; – to reveal the features of Geography educational programs taught according to the original methods of the Project; – to conduct Geography lessons and analyze them using the authors' technologies of the Research and Educational Project "Intellect of Ukraine"; – to monitor the effectiveness of the educational process in the "Intellect of Ukraine" project classes; – to present the educational program of the Research and Educational Project "Intellect of Ukraine," to reveal its particularities. In the context of the Russian-Ukrainian war, these components of skills <u>were specified and supplemented</u> in the Course Program as follows: – to effectively organize the educational process in the "Intellect of Ukraine" project classes via remote learning, taking into account the peculiarities of wartime (air raid alerts, power outages, limited access, etc.); – to master and apply the technology of emotional support and psychological first aid to students; – to master, apply, and learn to create a methodology for determining gaps in students' knowledge, skills, and abilities compared to regulatory requirements (educational losses); – to master, apply, and learn how to develop individualized remote technology for the complete assimilation of knowledge, skills, and abilities in order to overcome educational losses of students; – to master and apply in practice the technology of forming students' ability to learn as the most important key competence in war and postwar times; – to master and effectively use STEM education technology in the educational process of the "Intellect of Ukraine" project classes.
Dispositions (values, attitudes)	– professing and promoting traditional and modern democratic values; – implementation of professional and pedagogical activities on the basis of pedagogical axiology; – readiness for changes, reflection on own professional and pedagogical activity, continuous professional development. In the context of the Russia's invasion, these dispositions <u>were supplemented</u> in the Course Program as follows: – Ukraine's independence and peaceful sky as the highest values;

	– cohesion of Ukrainians and mutual support as the highest value; – access to quality education as the highest value.
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II. General characteristics of the Program

The **content of the Program** is determined in accordance with the didactic principles of designing of the educational content. In accordance with *the principle of correspondence of educational content with formative and civilizational trends in the development of humanity in general and Ukrainian society in particular*, we consider the provisions of the post-nonclassical paradigm of education as the starting point, in which the conceptual educational goal is to create conditions for self-actualization and creative self-realization of the individual in a complex unstable world. The axiological imperatives of state educational policy in the post-nonclassical paradigm are a combination of technocracy with humanistic priorities and culture-centeredness, which represents the typical features of a cultural personality: spirituality, national consciousness, cultural tolerance, positive thinking, emotional intelligence, etc.

The modernization of the national educational system on the basis of the ***competency-based approach***, the conceptual goal of which is the formation of a student as a subject of life through the formation of a system of interrelated key, general, and subject competencies, requires the abandonment of the cognitive approach to the formation of educational content with the well-known triad of structural components (ZUNs) in favor of the competency-based approach, within which the structural components of educational content are key, general, and subject competencies.

In accordance with the above, the curriculum of the professional development courses for teachers of Geography in the 10–11th grades who work / will work within the educational program of the Project is implemented ***in 30 academic hours (1 ECTS credit)*** and includes 3 modules: social and humanitarian, professional, diagnostic and analytical.

The social and humanitarian module (8 academic hours) ensures the development of course participants' competence in the regulatory framework of basic secondary education in general and specialized secondary education in particular, philosophy of education, communication theory, personality psychology, cultural studies, and the importance of technologies for preserving and maintaining human health.

In the context of the **Russia's invasion**, the materials of *the social and humanitarian module* have been changed and include the following questions:

1. Humanistic values in the context of the Russia's invasion and in the postwar period. Legal framework and current issues of education in Ukraine (2 hours).
2. Remote learning as the main form of education in war and postwar times. Theoretical and methodological, and technological aspects of its effectiveness (2 hours).
3. Emotional support and psychological first aid to students as the most important task of educators in the conditions of the Russia's invasion and in the postwar period (2 hours).

The professional module (22 academic hours) is aimed at developing the ability of course participants to carry out professional activities according to the educational program of the subject “Geography” and contains materials related to the methodology, theory, methods, and practice of teaching students of the 10–11th project classes in the lessons of Geography, the peculiarities of working with children with special educational needs, authors’ technologies for the complete mastery of educational units, learning based on students’ own discoveries, rational reading, the use of health-preserving technologies in the Project, etc.

In the context of **Russia’s aggression**, the materials of the professional module have been enriched with the following topics:

1. Individualized remote technology for the complete assimilation of knowledge, skills, and abilities as a means of overcoming educational losses of students.
2. Technology for the development of the key competence “ability to learn” as a priority area for the implementation of a competency-based approach to education in war and postwar times.
3. Technology for implementing STEM education and its importance in building independent Ukraine and preventing a Russia’s invasion in the future.

The diagnostic and analytical module (implemented during the social and humanitarian, and the professional modules) is aimed at identifying and improving the level of formation of key and professional competencies of teachers of Geography in the 10–11th grades who work / will work within the educational program of the Project, and provides for continuous diagnostics of course participants, module control, and defense of the individual / group project “My lesson of Geography in the 10–11th grades of the Research and Educational Project “Intellect of Ukraine” (September 2023).”

**CURRICULUM OF THE PROFESSIONAL DEVELOPMENT COURSES
FOR TEACHERS OF GEOGRAPHY
WHO WORK / WILL WORK IN 10–11TH GRADES OF THE RESEARCH
AND EDUCATIONAL PROJECT “INTELLECT OF UKRAINE”**

Table 2

Module	No.	Topics of the practical lessons	Hours	Expected learning outcomes in terms of competency-based approach
1. Social and humanitarian module	1.1	The humanistic values in the context of the Russia's invasion and in the postwar period. Legal framework and current issues of education in Ukraine	2 h	Key competencies and personal qualities • Social and civic competencies. • Cultural competence. • Ability to learn throughout life. • Native and state languages as key competencies • Patriotism. • Critical thinking. • Positive thinking. • Emotional intelligence. Professional competencies • Ability to form social and civic competencies, and patriotism in students. • Ability to implement the technology of critical thinking. • Ability to implement the technology of value saturation every lesson. • Ability to create a situation of success. • Ability to form positive thinking and emotional intelligence in students. • Ability to carry out professional activities in accordance with the regulatory framework of Ukraine.
	1.2	Remote education as the main form of education in war and postwar times. Theoretical and methodological, and technological aspects of its effectiveness	2 h	Key competencies and personal qualities • Information and communication competence. • Innovativeness. • Ability to learn throughout life. • Critical thinking. Professional competencies • Ability to teach students in the context of remote education.
	1.3	Emotional support and psychological first aid to students as the most important task of educators in the context of the Russia's invasion and in the postwar period	2 h	Key competencies and personal qualities • Health-preserving competence. • Social and civic competencies. • Life safety competence. • Positive thinking. • Resilience. • Emotional intelligence. Professional competencies • Ability to provide emotional support to participants during the educational process. • Ability to provide psychological first aid to participants during the educational process. • Ability to form positive thinking and emotional intelligence.

	1.4	Module control for the social and humanitarian block. Briefing 'Project "Intellect of Ukraine"'	2 h	Key competencies and personal qualities • Social and civic competencies. • Cultural competence. • Life safety competence. • Information and communication competence. • Native and state languages as key competencies. • Health-preserving competence. • Ability to learn throughout life. • Patriotism. • Critical thinking. • Positive thinking. • Emotional intelligence. • Innovativeness. • Resilience. Professional competencies • Ability to form social and civic competencies, and patriotism in students. • Ability to implement the technology of critical thinking. • Ability to implement the technology of value saturation every lesson. • Ability to create a situation of success. • Ability to form positive thinking and emotional intelligence in students. • Ability to carry out professional activities in accordance with the regulatory framework of Ukraine. • Ability to teach students in the context of remote education. • Ability to emotionally support participants during the educational process. • Ability to provide psychological first aid to participants during the educational process.
Total hours for the social and humanitarian module			8 h	
2. Professional module	2.1	Individualized remote technology for the complete assimilation of knowledge, skills, and abilities as a means of overcoming educational losses of students	2 h	Key competencies and personal qualities • Information and communication competence. • Innovativeness. • Ability to learn throughout life. • Critical thinking. Professional competencies • Ability to implement the main provisions of inclusive education. • Ability to implement the principles of individualized approach. • Ability to teach students in the context of remote education. • Ability to develop and implement an individual educational trajectory for students in remote learning.

	2.2	Technology for the formation of the key competence “ability to learn” as a priority for the implementation of the competency-based approach in education in war and postwar times	2 h	Key competencies and personal qualities ● Ability to learn throughout life. ● Critical thinking. ● Information and communication competence. ● Innovativeness. Professional competencies ● Ability to develop students’ ability to learn as a key competence. ● Ability to develop students’ information and communication competence. ● Ability to develop students’ rational reading skills. ● Ability to develop students’ critical and innovative thinking.
	2.3	Technology for implementing STEM education and its importance in building independent Ukraine and preventing a Russia’s invasion in the future	2 h	Key competencies and personal qualities ● STEM competencies. ● Critical thinking. ● Creativity. ● Heuristic thinking. ● Logical thinking. Professional competencies ● Ability to teach students based on their own discoveries. ● Ability to provide integrated learning for students based on interdisciplinary and project-based approaches. ● Ability to develop students’ research competence, master algorithms for solving inventive problems. ● Ability to develop students’ heuristic and innovative thinking. ● Ability to conduct lessons of Geography aimed at developing creative abilities using the authors’ technologies of the Research and Educational Project “Intellect of Ukraine.”
	2.4	Methods of teaching Geography in the project classes	4 h	Key competencies and personal qualities ● STEM competencies. ● Logical thinking. ● Critical thinking. ● Creativity. ● Heuristic thinking. Professional competencies ● Ability to determine the goals, objectives, principles, content, methods, forms, and means of implementing the country studies and geographical content lines of the subject. ● Ability to critically analyze and evaluate modern pedagogical theories and technologies, generalize domestic and foreign experience, educational practices in the field of geographic education. ● Ability to make an informed choice and effective use of pedagogical technologies in lessons of Geography. ● Ability to generate new research ideas in the field of natural science education of specialized school students. ● Ability to form competence in the field of natural sciences and other key competencies in students of the 10–11th project classes. ● Ability to develop in students of the 10–11th project classes the skills and abilities to integrate subject knowledge from different educational fields.

	2.5	Implementation of partnership pedagogy in the Research and Educational Project “Intellect of Ukraine”	2 h	Key competencies and personal qualities • Social and civic competencies. • Positive thinking. • Emotional intelligence. Professional competencies • Ability to cooperate and communicate with participants of the educational process and colleagues
	2.6	Master class on conducting and analysis of project lessons of Geography	2 h	Key competencies and personal qualities • STEM competencies. • Social and civic competencies. • Logical thinking. • Critical thinking. • Positive thinking. • Emotional intelligence. Professional competencies • Ability to conduct lessons of Geography using the authors’ technologies of the Research and Educational Project “Intellect of Ukraine.”
	2.7	Didactic workshop “Defense of the individual / group project “My Lesson of Geography in the project classes of the 10–11 th grades (based on Part 1 materials as of September 2023)”	8 h	Key competencies and personal qualities • STEM competencies. • Social and civic competencies. • Logical thinking. • Critical thinking. • Positive thinking. • Emotional intelligence. Professional competencies • Ability to conduct lessons of Geography using the authors’ technologies of the Research and Educational Project “Intellect of Ukraine.”
Total hours for the professional module				22 h
3. Diagnostic and analytical module	3	Current diagnostics of the level of learning of educational material; module control; defense of the individual / group project “My Lesson of Geography in the project classes of the 10–11 th grades (based on Part 1 materials as of September 2023)”	Implemented during the first and the second modules	Key competencies and personal qualities • STEM competencies. • Social and civic competencies. • Logical thinking. • Critical thinking. • Positive thinking. • Emotional intelligence. Professional competencies • Ability to conduct lessons of Geography using the authors’ technologies of the Research and Educational Project “Intellect of Ukraine.”
Total number of hours provided by the curriculum				30 h

III. Organizational issues of the Program implementation

The Program can be implemented through *full-time*, *remote*, and *blended full-time and remote* forms of education.

The *full-time form* involves interactive lectures, master classes, training sessions, discussions, conferences, defense of individual and group projects, etc.

The *remote form* includes classes in synchronous and asynchronous modes.

Course participants are trained in synchronous manner via the Zoom platform in groups of up to 12 individuals. Coaches lead the sessions through Zoom conferences and incorporate interactive learning technologies. Each lesson includes accompanying presentations, PDFs, and diagnostic tests to assess the participants' grasp of the training-methodological material.

Asynchronous training is made available to course participants through access to conference archives and training-methodological materials. Course participants are required to complete all tasks assigned by the coach and provide a report on the results of their implementation. If needed, the coach will offer individual consultations to the participant.

Blended full-time and remote form, which is regarded as the most effective approach for adult education in contemporary andragogy, allows course participants to integrate the benefits of traditional classroom learning with the flexibility of remote learning.

Recognition of the results of the Program participants

Upon successful completion of the Program, course participants receive a certificate that meets the requirements of paragraph 13 of the Resolution of the Cabinet of Ministers of Ukraine "Some Issues of Professional Development of Pedagogical and Scientific-Pedagogical Staff Members" (as amended) No. 800 dated 21.08.2019.

The organizers of the professional development (regional institutes of postgraduate pedagogical education (hereinafter referred to as regional IPPE) and the Non-Governmental Organization "Education of the XXI century" shall publish information about the issuance of the certificate on their official website within 15 calendar days.

The results of the professional development in regional IPPEs do not require additional recognition.

The results of the professional development in the Non-Governmental Organization "Education of the XXI century" are recognized by the *decision of the pedagogical / academic council of the educational institution where the educator works* and are credited to him / her in the amount of the number of hours specified in the certificate.