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**610427-EPP-1-2019-1-EE-EPPKA2-CBHE-JP
(2019-2023)**

SYLLABUS OF THE UPDATED COURSE



METHODS AND ETHICS OF MODERN SCIENTIFIC AND PEDAGOGICAL RESEARCH (MA LEVEL)

Prepared by the MultiEd team

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**Summary of a new course under the
MultiEd Project # 610427-EPP-1-2019-1-EE-EPPKA2-CBHE-JP**

Methods and Ethics of Modern Scientific Pedagogical Research, MA

**Horlivka Institute for Foreign Languages
SHEI Donbas State Pedagogical University**

Master/bachelor level	Master's level (graduate)
Branch of knowledge	014 Secondary Education
Specialization	014.021 Language and Literature (English Language and Another Western European Language)
Qualifications	Teacher of English, Foreign Literature, and Another Western European Language
Form of education	Full time
Status of the discipline	Compulsory course
Course prerequisites	English level B2 or higher
Semester of the course	1
Course Volume	4 ECTS, 120 hours: 36 hours of class work (20 hours of lectures and 16 hours of workshops) 84 hours of self-study and consultations
Form of final control	Credit (passed if A, B, C, D, or E; failed if F)
Course language	English
Developers	Nestoruk, Nataliia, Candidate of Pedagogical Sciences, Associate Professor, Horlivka Institute for Foreign Languages SHEI DSPU Yasynetska, Olena, Candidate of Philology, Associate Professor, Horlivka Institute for Foreign Languages SHEI DSPU

Brief Course Description (up to 2,000 symbols)

The course of Methods and Ethics of Modern Scientific Pedagogical Research helps graduate students understand the role of pedagogical sciences and specific research activities of educators. The basis of studying the course is the theoretical and practical essentials of scientific pedagogical research. The subject matters of the course are the main scientific and pedagogical categories, theoretical foundations, methods and forms of organising scientific pedagogical research, as well as their specifics and implementation.

The course is the main component in the system of modern teacher training in higher education, as it integrates and updates the knowledge acquired by higher education students while studying specific professional as well as psychological and pedagogical disciplines.

Methodologically, the professor will conduct the course through lecture presentations and practical training in doing research. The students are required to attend classes, read and discuss methodological materials, do research and have their studies published, do workshop assignments, engage in peer reviewing, and successfully complete the progress tasks and the module task. The students' are expected to work individually, in small groups, and in class discussions.

New Components (the course is new)	
<ul style="list-style-type: none"> A. Key Terms and Notions B. Course Aim C. Competences D. Learning Outcomes E. Assessment and Feedback in the Course F. Final Assessment G. Assessment Criteria H. Course Quality Control I. Course Layout and Number of Modules J. Course Topics K. Teaching and Learning Methods L. Literature and References 	
A. Key Terms and Notions	
Research methods and ethics, teaching, learning, pedagogy, psychology, methodological material, research paper, action research, practical knowledge, modern technology.	
B. Course Aim	
The aim of the course is to ensure that the students acquire knowledge about the basic concepts and methods of pedagogical research, its structure, logic, and ethics, as well as the nature and features of different groups of research methods in the educational process at academic institutions.	
C. Competences	
Generic competences	<p>The ability to work and act on the basis of ethical considerations in a team and autonomously, through communication and interaction with representatives of professional groups of different levels.</p> <p>The capability to make effective decisions in professional activities and to act responsibly, motivating people to achieve a common goal.</p> <p>The ability to generate new ideas as well as identify and solve problems.</p> <p>The abilities to learn and acquire knowledge; analyse, systematise and evaluate educational and professional activities.</p> <p>The capability to apply knowledge to practical situations, following the rules of academic integrity; the ability to adapt to and act in a new situation.</p> <p>The ability to communicate information and ideas in Ukrainian (the native language) both orally and in writing.</p> <p>The ability to communicate information and ideas in English.</p> <p>Skills in using information and communication technologies in educational and professional activities.</p> <p>The ability to apply soft skills in professional activities.</p> <p>Knowledge of the subject area and understanding of the profession.</p> <p>The ability to evaluate and maintain quality of the work produced.</p>
Specific competences	<p>The abilities to research, acquire, and impart specific competencies, modelling the content of education in accordance with the programme results.</p> <p>The abilities to research, plan and design the learning process, as well as select optimal teaching forms, methods, technologies, and aids to implement integrated learning.</p> <p>The abilities to research and organise various types and forms of educational and cognitive activities of students within the subject specialty (secondary education), using traditional and innovative educational resources.</p> <p>The abilities to find effective ways to motivate learners for self-development (self-</p>

	<p>determination, interest, and conscious attitude to learning) and to establish constructive partnership with participants of the educational process.</p> <p>The abilities to research and create favorable conditions in the educational environment of learners, taking into account their individual needs, capabilities, and interests to ensure an inclusive educational environment and to provide psychological and pedagogical support for people with special educational needs.</p> <p>The ability to identify and research effective methods to ensure objective control, evaluation, and monitoring of learners' academic achievements.</p> <p>The ability to use a variety of approaches to identifying, researching, and solving problems in teaching and extracurricular activities to ensure learning, competence, and cooperation.</p>
D. Learning Outcomes	
LO 1	To know and understand the essential concepts, methods, and stages of scientific research.
LO 2	To apply the methods of theoretical and experimental research in pedagogy, clearly proving oneself a competent scientist.
LO 3	To be able to identify the problem, determine the purpose, state the hypotheses, formulate the objectives of research, suggest scientific ideas, as well as summarise and explain scientific facts.
LO 4	To effectively develop a pedagogical research programme and to select the methodological basis of a study in order to implement its objectives comprehensively, choosing and applying adequate research methods.
LO 5	To select and analyse the necessary information on the research topic, using modern sources and technologies for finding and processing scientific information.
LO 6	To be able to systematise and summarise the results of the study of psychological and pedagogical phenomena and to analyse the results in the forms of scientific articles and presentations.
LO 7	To use the findings of scientific pedagogical research in practical pedagogical activities—to solve problems in teaching and extracurricular work in order to ensure effective learning, competence, and cooperation.
E. Assessment and Feedback in the Course	
<p>The teacher's and peer feedback is given orally and regularly to evaluate the work done during lectures and workshops. The teacher's feedback to written papers is given in writing. The progress control involves assessment of workshop tasks on various aspects of the course, including independent work assignments. The control is performed as a system of evaluating professionally specific competences of the students in the forms of two progress checkpoints and a module task, each aimed at producing a research article, a report, and a study analysis. The first content module ends with one checkpoint; the second content module ends with the second checkpoint and the module task, which are aimed at assessing the students' professional and pedagogical competence achieved in the course.</p> <p>Progress checkpoint 1 requires each student to have written a research article on a given or chosen pedagogical topic.</p> <p>Progress checkpoint 2 entails making a list of references on a pedagogical topic.</p> <p>The module task requires each student to choose a pedagogical topic and analyse it for the following components: the topic, topicality, research problem, literature review, purpose, objectives, study</p>	

material, conclusions, inferences, and research prospects.

F. Final Assessment

The form of the final assessment is a differentiated credit. The assessment grade consists of the sum of points for the two progress checkpoints (30 points at most for each) and the module task (40 points at most) during the semester. If the accumulated points are less than 60 during the course, the student shall have to take the credit additionally in a speaking form to answer theoretical questions and provide examples.

G. Assessment Criteria

100-90 points, A	Thorough and deep knowledge of the material in a required amount; the ability to do practical tasks entailed by the curriculum completely, proficiently, and productively; showing creativity in understanding and using the acquired knowledge and skills.
89-82 points, B	Thorough and systematic knowledge of the course aspects, with successful completion of practical tasks and the ability to replenish and update knowledge independently. There are only minor errors in the student's oral answers or written work.
81-75 points, C	Systematic knowledge of the course aspects, with completion of practical tasks and the ability to replenish and update knowledge independently. However, there are inaccuracies in the student's oral answers or written work.
74-67 points, D	Basic knowledge of the educational material in the amount sufficient for further study and future professional activities; basic awareness of the course aspects and just satisfactory performance of the course tasks; there are obvious errors in doing practical tasks, but the student can eliminate them with the teacher's help.
66-60 points, E	Basic knowledge of the educational material in the amount sufficient for further study and future professional activities; narrow awareness of the course aspects and just satisfactory performance of the course tasks; there are significant errors in doing practical tasks, and the student can eliminate them only with the teacher's help.
59-0 points, F	The student's answers and performance of tasks in the course are superficial, fragmentary, or absent, and the student has only a vague idea, if any, about the course aspects.

H. Course Quality Control

1. Syllabus feedback from internal and external (peer-)reviewers.
2. Feedback from enrolled students.
3. The students' performance in the course.

I. Course Layout and Number of Modules

Topic	Total hours	Lecture hours	Workshop hours	Individual work hours
Content Module 1. Fundamentals of Scientific Pedagogical Research				
Topic 1. Methodology and methods of scientific pedagogical research	14	4	2	8

Topic 2. The stages and organisation of scientific and pedagogical research: logic and structure	12	4	2	6
Topic 3. The main components and methods of scientific pedagogical research	14	4	4	6
Total of Content Module 1	40	12	8	20
Content Module 2. Methods of Searching for Scientific Information and Finding Results of Scientific Pedagogical Research				
Topic 1. Ethics of scientific pedagogical research and academic integrity	18	4	4	10
Topic 2. Scientific organization of the research process	32	4	4	24
Total of Content Module 2	50	8	8	34
Total course hours	90	20	16	54
J. Course Topics				
<ol style="list-style-type: none"> 1. Characteristics of the concept of a scientific problem. 2. The concept of a research topic and methods of its formulation. 3. The essence of the concept of methodology. Defining the subject and object of research. The purpose and objectives of a study. The difference between methodology, methods, and techniques. 4. The structure of a research program, the stages of stating the problem, and the stages of theoretical analysis of the problem. 5. A rationale for a given or chosen research topic. 6. The sequence of work on choosing a research topic. 7. The main criteria for choosing a research topic. 8. What rules should be used in justifying the topic of research? 9. The steps for writing a scientific article. 10. Methods of scientific and pedagogical research: empirical, theoretical, statistical, and mathematical. 11. The order of scientific and pedagogical research. 12. The logic of scientific and pedagogical research. 13. Name theoretical methods of research and substantiate their significance. 14. What methods can be used to conduct empirical research? 15. The role of quantitative results processing methods in scientific and pedagogical research? 16. The differences between writing a scientific article and a scientific report. 17. Organization and features of creative work. 18. Ethics of scientific pedagogical research and academic integrity of the researcher. 19. Freedom of scientific research and social responsibility of the scientist. 20. General characteristics of information. The role of information in research. 21. Types of information sources. 22. Information support for scientific pedagogical research. 23. Basic requirements for the architecture of scientific work (an abstract, an introduction, the theoretical and practical parts, efficiency substantiation, conclusions, etc.). 				
K. Teaching and Learning Methods				
The methods employed in the course are those of explanation, illustration, observation, search, analysis, synthesis, induction, deduction, research, review, evaluation, and presentation.				

L. Literature and References

1. Avoiding Plagiarism, Self-plagiarism, and Other Questionable Writing Practices: A Guide to Ethical Writing. Accessible at <https://ori.hhs.gov/avoiding-plagiarism-self-plagiarism-and-other-questionable-writing-practices-guide-ethical-writing>
2. Bazzul, J. (2016). Ethics and Science Education: How Subjectivity Matters. *SpringerBriefs in Education*. Accessible at https://www.researchgate.net/publication/303565100_Ethics_and_Science_Education_How_Subjectivity_Matters
3. Bolotin, A., & Bakayev, V. (2017). Scientific and Theoretical Prerequisites for Improvement of Modern Pedagogical Technologies. Accessible at <https://www.intechopen.com/chapters/58132>
4. Data fabrication/data falsification. Accessible at <https://www.springer.com/gp/authors-editors/editors/data-fabrication-data-falsification/4170>
5. Data falsification and fabrication. Accessible at <http://editorresources.taylorandfrancisgroup.com/data-falsification-and-fabrication>
6. Definitions and Examples of Academic Misconduct. Accessible at <http://sa.berkeley.edu/conduct/integrity/definition>
7. Journal of Pedagogical Research. Accessible at <https://www.ijopr.com>
8. Otrel-Cass, K., Andrée M., & Ryu, M. (2020). *Examining Ethics in Contemporary Science Education Research*. Springer Nature, Switzerland AG. Accessible at <https://link.springer.com/book/10.1007/978-3-030-50921-7#toc>
9. Pedagogical Sciences: Theory and Practice. Accessible at <http://journalsofznu.zp.ua/index.php/pedagogics>