Ministry of Education and Science of Ukraine
Sumy National Agrarian University
Faculty of Law
Department of Justice and Philosophy

Syllabus of the educational component

OK 1. PHILOSOPHY OF SCIENCE
(mandatory)

Specialty	**D3 Management**
Educational program	**Management**
HE level	**doctor of philosophy** **the third (educational and scientific) level of higher education**

Sumy– 2025

Creator Anzhelika Shevel, Candidate of Philosophical Sciences, Associate Professor

Considered, reviewed and approved on the meeting of the department: Justice and Philosophy	prot. from 5.06 2025 № 11
	The head of department: Yurii KOTVIAKOVSKYI

Погоджено:

Guarantor of the educational program (sign) Inna SOKHAN (name)

Dean of the Faculty (sign) Svitlana LUKASH (name)

A review of the work program has been provided (sign) Олександр Конієв (name)

A review of the work program has been provided (sign) (name)

Methodologist of the Department of Educational Quality, licensing and accreditation (sign) (Svitlana Kotelevets) (name)

Registered in the electronic database: date: 25.06 2025

Information on viewing the work program (syllabus):

Academic year in which the changes are made	The number of the annex to the work program with a description of the changes	The changes were reviewed and approved		
		Date and number of the protocol of the meeting of the department	Head of department	Guarantor of EP

1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

1.	Name of EC	Philosophy of science
2.	Faculty/Department	Faculty of Law, Department of Justice and Philosophy
3.	State of EC	mandatory
4.	Program/Specialty (programs) of which the OC is a component (to be filled in for mandatory OCs)	
5.	Program/Specialty	Scientific and educational program «Management». The third (educational and scientific) level of higher education. Level of higher education: doctor of philosophy. Specialty: D3 Management
6.	Semester and studying duration	1 semester, 10 weeks;
7.	ECTS credits number	3
8.	Total workload and time allotment Language of instruction	Directed study: Lectures 10; Seminars 20; Labs -; Self-directed study 60
9.	Lecturer/Leader of educational component	English
10.	ECTS credits number	Shevel Anzhelika Oleksandrivna, Candidate of Philosophical Sciences, Associate Professor of the Department of Justice and Philosophy
11.	Contacts	Consultations hours – every tuesday at 12.15, online; inna.sokhan@snau.edu.ua
12.	Educational component description	Philosophy of science is designed to provide graduate students with basic knowledge on organizing research work using general methods of scientific knowledge and applying formal-logical laws and philosophical principles in processing, understanding, and generalizing the results of scientific research.
13.	Educational component aim	The purpose of the educational component: to form in graduate students general ideas about the history of the development of a specific field of science and the philosophy of scientific knowledge in general, about the methodology of scientific creativity, about the main provisions that characterize research work as qualified scientific research in a particular field of science.
14.	Prerequisites for educational component studying, connection with other educational components of EP	The educational component is the basis for further scientific creativity in all branches of science.

15.	Policy of academic integrity	According to the Code of Academic Integrity of the Sumy NAU, academic integrity is a set of principles, rules of behavior of participants in the educational process, aimed at forming an independent and responsible personality, capable of solving tasks in accordance with the educational level in compliance with the norms of law and social morality. Observance of academic integrity by students of higher education involves independent performance of educational tasks, tasks of current and final control, learning results. It is expected that students of higher education will adhere to the principles of academic integrity, being aware of the consequences of its violation, which is determined by the regulatory documents of the Sumy National Agrarian University, in particular the Code of Academic Integrity, the Regulations on the Prevention and Detection of Academic Plagiarism at the Sumy NAU (a full list of regulatory documents is posted on the university's website. https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/). For violation of academic integrity, students of higher education may be held to the following academic responsibility: - repeated assessment (test, exam, credit, etc.); - repeated completion of the training course; - warning; - issuing a reprimand; - expulsion from the university; (Part 5 of Article 48 of the draft Law of Ukraine "On Education"); - arrest or restriction of liberty, or deprivation of liberty, with deprivation of the right to hold certain positions or engage in certain activities with a fine.
17.	Keywords:	life, epistemology, ethics, ideal, innovation, methodology of science, morality, science, scientific knowledge, scientific cognition, scientific and technological progress, professional code of honor of a scientist, freedom, sociology of science, worldview, artificial intelligence, values

2. LEARNING OUTCOMES UNDER THE EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH PROGRAM LEARNING OUTCOMES

Learning outcomes for EC (MLOs): On successful completion the educational component, the student will be able…	**Program learning outcomes, PLOs** (specify the number according to the numbering given in EP)		How is assessed
	PLO 5 To deeply understand the general principles and methods of management sciences, as well as the methodology of scientific research, to apply them in one's own research in the field of management and in teaching practice.	PLO 9 Demonstrate a systematic scientific worldview, rationally understand the challenges facing science in the context of socio-economic and environmental problems of our time (ethical dilemmas, values, global social transformations)publications.	
MLOs 1. Know the history of the formation and development of science as a socially significant phenomenon, the basic concepts, principles and categories of scientific knowledge, the philosophical and worldview foundations that guided scientists in creating their innovative theories	x	x	Report, discussion, survey, group work, discussion. Conducting modular control and certificatio n control
MLOs 2. Be able to defend one's scientific position based on the theoretical and methodological basis of fundamental sciences	x	x	Preparation of multimedia presentatio ns, essays, abstracts
MLOs 3. Be able to analyze the most important theoretical problems of modern science.	x	x	Debate, philosophic al quiz, brain-ring, preparation of multimedia presentatio ns, essays, abstracts
MLOs 4. Be able to link the development of science with the development of the spiritual and creative potential of humanity,		x	Project presentatio n, round table discussion

aimed at the formation and practical use			
MLOs 5. Apply acquired knowledge in scientific activities, apply practical skills in analyzing a particular method of scientific research	x	x	Discussior with elements (oral presentatic n of one own position

3. CONTENT OF THE EDUCATIONAL COMPONENT (CURRICULUM PROGRAM)

Topic. List of issues to be considered within the topic	Distribution within the general time budget		Learning resources
	Class work	Individual work	

Topic 1. Philosophy of science as a branch of philosophical knowledge Plan 1. Subject area of philosophy of science. Phenomenon of science in the structure of philosophy of science. 2. Historical types of worldview. 3. The relationship between philosophy and science, common and distinctive features of philosophy and science. 4. Historical types of the relationship between philosophy and science. 5. Phenomenon of science in the structure of philosophy of science. 6. Epistemology. Methodology of science. 7. Sociology of science Specificity of philosophical problems of science.	2	4	15	1, 2 4, 8, 13, 16, 20
Topic 2. The phenomenon of science. The main forms of existence of science. Plan 1. The genesis of scientific knowledge, classical, non-classical, post-non-classical science. 2. Science as a specific type of knowledge, attributive characteristics of scientific knowledge. 3. Science as a cognitive activity. 4. Science as a social institution. The systemic nature of science. 5. The main functions of science.	2	4	15	1, 2 4, 8, 9, 11, 12, 16, 20
Topic 3. Structure and methods of scientific knowledge Plan 1. Levels of scientific knowledge. 2. Structure of empirical knowledge. 3. Methods of empirical research: scientific observation, comparison, measurement, experiment. 4. The relationship between empiricism and theory. 5. Methods of theoretical knowledge: idealization, formalization, mathematical modeling. 6. Structure of scientific theory. Metatheoretical level of scientific knowledge. 7. Scientific picture of the world, ideals and norms of scientific research and philosophical foundations of science.	2	4	15	1-13
Topic 4. Theory and practice of science as a social institution. Ethics of science. Plan	2	2	15	1, 2, 4, 6, 7, 8, 13

1. Science and morality. Ethics and deontology, professional code of honor of a scientist. 2. Main topics of ethical discussion of scientific and technical activity (goals of science, means of scientific activity, consequences of scientific activity, meaning of scientific activity). 3. Scientific knowledge: freedom and control. Ethical issues of special sciences. 4. The influence of science on the formulation of new ethical problems. 5. Scientific and technical progress and its moral problems.				
Topic 5. Theories of the origin and development of life. Plan 1. Specificity of philosophical and methodological problems of biology. 2. Reductionism vitalism in the history of biology. The essence of living things. Scientific concepts of the origin of life. 3. The idea of development in biology (transformism, saltationism, evolutionism). 4. Global problems of humanity and. ways to solve them		2	15	2, 11, 15, 19, 23, 24
Topic 6. The phenomenon of innovation and its research. Plan 1. The phenomenon of innovation and its research. 2. Methodological individualism. 3. The social nature of innovation. 1. 4. Motivation and personality.	2	4	15	5, 8, 9, 13, 15, 20, 21, 22, 23
Total	10	20	60	

4.TEACHING AND LEARNING METHODS

MLO	**Teaching methods** (work to be carried out by the teacher during classroom classes, consultations)	**Teaching methods** (what types of educational activities should the student perform independently)

MLOs 1. Know the history of the formation and development of science as a socially significant phenomenon, the basic concepts, principles and categories of scientific knowledge; the philosophical and worldview foundations that guided scientists in creating their innovative theories	- conducting lectures with multimedia presentations on each topic; - moderating discussions based on the results of the reports; - conducting surveys, testing (multiple choice test)	- preparation of materials for a report, discussion, debate; - preparation for a survey, testing (multiple choice test)
MLOs 2. Be able to defend one's scientific position based on the theoretical and methodological basis of fundamental sciences	- conducting lectures with multimedia presentations for each topic; - moderating discussions based on the results of reports; - conducting surveys, testing (multiple choice test) - consultations; - checking multimedia presentations, essays, abstracts;	- preparation of materials for reports; abstracts - preparation of essays - preparation for surveys, testing (multiple choice test)
MLOs 3. Be able to analyze the most important theoretical problems of modern science	- conducting lectures with multimedia presentations for each topic; - moderating discussions based on the results of the reports; - conducting surveys; - organizing debates, preparing philosophical quizzes, brain-rings	- preparation of materials for the report; - preparation for a philosophical quiz, an intellectual game "brain ring" - preparation for a survey, testing (multiple choice test)
MLOs 4. Be able to link the development of science with the development of the spiritual and creative potential of humanity, aimed at the formation and practical use	- moderating the discussion based on the results of the reports; - conducting surveys, testing (multiple choice test) - consultations;	- preparation for the survey, testing (multiple choice test)
MLOs 5. Apply acquired knowledge in scientific activities, apply practical skills in analyzing a particular method of scientific research	- conducting lecture classes with multimedia presentations for each topic;	- preparation of materials for reports, discussions, debates;

5. EVALUATION BY THE EDUCATIONAL COMPONENT

5.1.1 To assess the expected learning outcomes, it is provided:

№	Methods of summative assessment	Points / Weight in the overall assessment	The date of compilation
1.	Practical task for topic 1 Philosophy of science as a branch of philosophical knowledge. Report	10 points /10%	Up to 4 weeks

2.	Practical task for topic 2 The phenomenon of science. The main forms of existence of science. Discussion	10 points /10%	Up to 5 weeks
3.	Practical task for topic 3 Structure and methods of scientific knowledge. Essay	10 points /10%	Up to 6 weeks
4.	Testing on the topics covered (multiple choice test)	10 points /10%	Up to 8 weeks
5.	Practical task for topic 4 Theory and practice of science as a social institution. Ethics of science.. Philosophical discussion.	10 points /10%	Up to 9 weeks
6.	Practical task for topic 5 Theories of the origin and development of life. Intellectual game "Brain Ring"	10 points /10%	Up to 10 weeks
7.	Practical task for topic 6 The phenomenon of innovation and its research.	10 points /10%	Up to 10 weeks
8.	Exam	30 points /30%	After 10 weeks
	Total	100%	

5.1.2 Evaluation criteria

Component	Unsatisfactory	Satisfactory	Good	Excellent
Practical task for topic 1 Philosophy of science as a branch of philosophical knowledge. Report	0 points The graduate student did not prepare a report, did not participate in the discussion	6 points The graduate student did not disclose the topic of the report, did not argue his position, did not answer additional questions, and did not show activity during the discussion	points The postgraduate student partially covered the topic, did not sufficiently convincingly argue his position, did not answer some additional questions, participated in discussions	9-10 points The postgraduate student fully disclosed the topic of the report, convincingly argued his position, answered additional questions, and actively participated in the discussions.
Practical task for topic 2 The phenomenon of science. The main forms of existence of science. Discussion	0 points The graduate student did not participate in the discussion.	6 points The graduate student took a passive part in the discussion	points The graduate student participated in the discussion in the form of individual remarks and comments	9-10 points The postgraduate student actively participated in the discussion, independently formulated and expressed opinions on the topic
Practical task for topic 3 Structure and	0 points The graduate student did not prepare an essay	2-4 points The essay prepared by the Postgraduate Student	5-8 points The essay prepared by the Postgraduate	9-10 points An essay prepared by a Postgraduate Student is an original work that fully discloses the

methods of scientific knowledge. Essay		contains significant errors, does not correspond to the topic, or does not reveal it	Student generally covers the topic, but contains some errors	topic and contains the student's own thoughts.
Testing on the topics covered (multiple choice test)	0-3 points Depends on the number of correct answers on the test	4-6 points Depends on the number of correct answers on the test	7-8 points Depends on the number of correct answers on the test	9-10 points Depends on the number of correct answers on the test
Practical task for topic 4 Theory and practice of science as a social institution. Ethics of science.. Philosophical discussion	0-3 points The graduate student did not participate in the discussion.	4-6 points The graduate student took a passive part in the discussion	7-8 points The graduate student participated in the discussion in the form of individual remarks and comments	9-10 points The postgraduate student actively participated in the discussion, independently formulated and expressed opinions on the topic
actical task for topic 5 Theories of the origin and developme nt of life.. Intellectual game "Brain Ring"	0 points The graduate student did not participate in the intellectual game	2-4 points The graduate student did not show activity in teamwork	5-8 points The graduate student participated in teamwork, gave some correct answers	9-10 points Active participation in the game, accurate and complete answers to questions
Practical task for topic 6 The phenomeno n of innovation and its research	0 points The graduate student did not participate in the intellectual game	2-4 points The graduate student did not show activity in teamwork	5-8 points The graduate student participated in teamwork, gave some correct answers	9-10 points Active participation in the game, accurate and complete answers to questions

5.2 . Formative assessment:

5.2.1 To evaluate the current progress in education and understand the areas of further improvement, is provided

№	Elements of formative assessment	Date
1	Testing after learning the topics № 1-2,3-4, 5-6.	4 week, 6 week, 9 week, 10 week
2	Passing current control testing with feedback from the teacher	constantly
3	Self-assessment	1-3, 10 week
4	Verbal feedback from the teacher during classes	constantly
5	Peer evaluation	5, 9, 10 week
6	Written feedback on essays, abstracts, multimedia presentations	constantly
7	Verbal feedback from the teacher and students after the exam	6, 10 week

Self-assessment can be used as an element of summative assessment and formative assessment.

5.3 Total number of points for EC and rating scale

The total number of points for the educational component is 100 points.

5.3.1 Evaluation scale operating at the University:

The sum of points for all types of educational activities	Evaluation on a national scale	
	For an exam, course project (work), practice, qualification work	For a credit
90 – 100	excellent	passed
82-89	good	
75-81		
69-74	satisfactory	
60-68		
35-59	not satisfactory with the possibility of retaking	not passed with the possibility of retaking
0-34	factory with obligatory repeated study of the discipline	not passed with obligatory repeated study of the discipline

REFERENCES

1. Anzhelika Shevel, Hanna Tsyhanok. Educational environment security: axiological aspect // Zeszyty Naukowe WSTiE. Наукові зошити Вищої школи туризму та екології, (Польша). tom 21, rocznik XI numer 1/2022. – С.129-137

2. Olena Hryn, Anzhelika Shevel, Nataliia Shcherbyna, Oleg Kubrak, Kostiantyn Zadorozhnyi. Implementation of Artificial Intelligence in the System for Detecting Academic Dishonesty in Ukrainian Secondary and Higher Education Institutions. Periodicals of Engineering and Natural Sciences Vol.13 №2. 2025. DOI: 10.21533/pen
3. Getman A., Danilyan O., Dzeban A., Kalinovsky Y., Hetman Y. Information security in modern society: sociocultural aspects. Amazonia Investiga. 2020. Vol 9. № 25. P. 6-14.
4. Purcell, Sebastian. 2020. "How the Mayan Philosophy of Time Can Teach You to Recover Daily Joys." Medium. September 3, 2020. https://medium.com/illumination-curated/how-the-mayan-philosophy-of-time-can- teach-you-to-recover-daily-joys-ed850597afc3.
5. Stewart, Georgina Tuari. 2020. Maori Philosophy: Indigenous Thinking from Aotearoa. London: Bloomsbury Academic.

Information resources

Platform Moodle https://cdn.snau.edu.ua/moodle/course/view.php?id=2292
Stanford Encyclopaedia of Philosophy: URL: http://plato.stanford.edu
Internet Encyclopaedia of Philosophy: URL: http://iep.utm.ed

Model syllabus review _____

(Developed by the teacher of the Department of Justice and Philosophy Anzhelika Shevel

Parameter by which the work program (syllabus) of the educational component is evaluated by the guarantor or a member of the project team	Yes	No	Comment
Learning outcomes by educational component (MLOs) correspond to the EK			
Learning outcomes by educational component (MLOs) correspond to the provided PLOs (for compulsory)			
Learning outcomes in the educational component provide an opportunity to measure and assess the level of their achievement			

Member of the project group EP _____ _____

(name) (signature)

The parameter by which the working program (syllabus) of the educational component is evaluated by the teacher of the relevant department	Yes	No	Comment
General information about the educational component is sufficient			
Learning outcomes by educational component (MLOs) correspond to the EK			
Learning outcomes by educational component (MLOs) provide an opportunity to measure and assess the level of their achievement			
Learning outcomes (MLOs) relate to the competencies of students, not the content of the discipline (contain knowledge, skills, abilities, not topics of the curriculum of the discipline)			
The content of the EK is formed in accordance with the structural and logical scheme			
Learning activity (teaching and learning methods) allows students to achieve expected learning outcomes (MLOs)			
The educational component involves learning through research that is appropriate and sufficient for the appropriate level of higher education			
The assessment strategy within the educational component is in line with the policy of the University / faculty			
The provided assessment methods allow to assess the degree of achievement of learning outcomes in the educational component			
The workload of students is adequate to the volume of the educational component			
Recommended learning resources are sufficient to achieve learning outcomes (MLOs)			
The literature is relevant			
The list of training resources contains the necessary software products to achieve MLOs			

Reviewer (lecturer of the department) Oleksandr Kovalchuk _____

(name) (signature)