

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL UNIVERSITY
“KHARKIV POLYTECHNICAL INSTITUTE”**

PHILOSOPHY DEPARTMENT

«APPROVED»

Head of the scientific and methodical council

(name of council)

(signature) (name)

«_____» _____ 2019

EDUCATIONAL PROGRAM

**«OUTLOOK AND SOCIAL-AND-CULTURAL BASIS OF THE
SCIENTIFIC AND TECHNICAL ACTIVITY»**

Skill Philosophy doctor (Ph.D.)

Direction of training _____
(code and name)

Specialty _____
(code and name)

Specialisation _____
(code and name)

Type of discipline – general training

Full-time education

Kharkiv – 2019

LIST OF APPROVING

Educational program on Philosophy

Developer:

assistant professor, PhD

(post, scientific degree and academic title)

(signature)

Gorodiskaya O.N.

(name)

(post, scientific degree and academic title)

(signature)

(name)

Educational program considered at the meeting of the Philosophy Department

Minute # , 2019

Head of the Philosophy Dept. _____ Tararoyev J.V.
(signature)

LIST OF CONCORDANCE

Name of the producing
Department _____

Head of the Department _____
(signature) (name)

« _____ » _____ 2019

1. GOAL AND TASK OF THE DISCIPLINE STUDING

“Outlook and social-and-cultural basis of the scientific and technical activity” is one of the basic humanitarian disciplines obligatory for all specialties Ph.D. preparation. Philosophy studies are based on the knowledge’s received by the Ph.D. during the first courses. First of all it’s the knowledge’s on the mathematics, the chemistry, the physics, the economics and some special disciplines. These knowledge’s are the scientific and the methodological base of that outlook forming of which is the goal of the discipline studies.

The main discipline tasks are:

- guaranteeing the realizing by the students the philosophy essence, its content and its peculiarities as the world-out-look science, the main stages of philosophy development and its role in societies;
- acquaintance of students with the contribution of foreign and native thinkers to the human culture development;
- capturing the philosophy knowledge’s system which is the methodological way for the analyzing of the nature, technical and humanitarian problems both the theoretical and practical;
- forming in future specialists the high moral qualities and experiences based on the general human values, the consciousness and the sense of responsibility for the Ukraine future.

2. THE PLACE OF DISCIPLINE IN THE EDUCATIONAL STRUCTURE

Description of discipline

(usage of study hours for semesters and classes types)

Semester	Total amount (hours)	Incl		Classes types /hours/			Individual tasks	Tests	Control	
		Classes (hours)	Self-training (hours)	lectures	Labor works	Practice, Seminars			Obligatory tasks	Test
1	2	3	4	5	6	7	8	9	10	11
	120	40	20	10		30	60			yes

3. CONTENT OF THE DISCIPLINE

Topic 1. Outlook as the basis of the individual and social human life

Outlook, its structure. Historical varieties. Correlations between scientific, philosophical and religious types of outlook. The specific character of the philosophy knowledge. The main philosophy functions. The basic philosophy question, its sides and decisions. The place and the role of philosophy in social culture, in the cognition and the transformation of reality.

Topic 2. Ontological aspects of the modern scientific knowledge

The philosophical analysis of the being category and its evolution. The basic forms of being and its dialectics. The forming of scientific-philosophical concept of material and its philosophical and methodological meaning for the cognition of being. The modern science about the structure and the characteristics of material. Movement as a way of the material existence. Space and time as the

material being forms. Substantive and relative theories of space and time.

Topic 3. The consciousness problem in philosophy and science

The consciousness problem in the history of culture. Consciousness as the highest level of human activity. The aspects of the consciousness studying. Consciousness as the virtual space. Artificial intelligence and consciousness. Consciousness and language. Language functions. The gnoceological content and the ontology of consciousness. The social nature of consciousness. The consciousness forms and structure. The unconsciousness problem and the human being. Information and consciousness. The unconscious problem.

Topic 4. The theories of development and the philosophical and scientific thinking toolkit formation

The problem of the concepts usage in philosophy and science. The concept of dialectics. Dialectics and metaphysics as the alternative methods in philosophy. The objective and the subjective dialectics. The dialectics laws and its methodological meaning. The dialectical categories. The problem of the order in philosophy. The theory of self-organisation as the interdisciplinary strategy. The synergy paradigm as a theory of the self-organisation and self-development. The global evolutionism theory. “The evolution” and “the development” concept, their definitions.

Topic 5. Gnoseological and epistemological problems of modern science

The world cognition problem. The cognitive human relation to the world. The cognition as the reflection and as the activity. The subject and the object of cognition. The sensitive and the logical grades of cognition and its forms. The practice, its role and its place in cognition. The peculiarities of natural and humanitarian sciences. The truth concept. The dialectics of absolute and relative truth. The error concept. The truth criterions.

Topic 6. Methodological problems of modern science

First part. Science in the philosophical angle. The scientific and non-scientific knowledge. Pre-scientific kind of knowledge. The criterions of scientific. The scientific cognition structure. The society, the science, the technique. Science as a social institute. Special parts of the philosophy of science. The appearance of science, the stages of its evolution. Scientific realism and its principles. The peculiarities of the modern stage of science. Scientific and technical progress at the modern stage of science development.

Second part. Methodology of scientific cognition. The logic of scientific process. The scientific cognition: the forms, the methods, the approaches. The scientific cognition methodology. Systematic and structural character of the scientific investigation. Kinds of the scientific investigations. Dissertation as a specific type of the scientific work. Practical usage of the received results. Investigation of the literature in the scientific work.

Topic 7. Social transformations and its influence on the science and technique development

First part. Philosophical reflection on society. The concept of society. The periodization of the historical development. The society as the self-developing system. The basic theories of social development. The social consciousness and its forms. Peculiarities of industrial, post-industrial and informative society’s concepts. The motive forces and the tendencies of the social development. Society and state. The basic spheres of social life. Philosophical understanding of culture. The spirituality as the kind of human being.

Second part. Technical and technological basis of the information society genesis. Social role of technical and techniques in historical process. The peculiarities of the technics interpretation in human life. Technical and technological basis of the information society genesis. Globalization, its dimensions. Society and global problems. The complex character of the global problems. Global

crises and the searches for new values. Synthesis of western and eastern values systems.

Topic 8. Anthropological roots of science and technics

The concept of human being. The human being problem in the history of philosophy. The human origin problem. Anthroposociogenesis. The biosocial nature of human. Human as a social being. Human, individual, person, individuality. Sense of human life, freedom problem, human loneliness problem. Freedom and responsibility. Existential problems in the conditions of the scientific and technics development. The values of the human being. Transhumanism problem.

4. Studying plan of the course

#	Classes type (L., Pr., L.w.)	Hours	Semester, Topics, tasks	Literature
1	2	3	4	5
1	L	2	Outlook as the basis of the individual and social human life. Ontological aspects of the modern scientific knowledge	/1, 3, 4-6/
2	S	2	Outlook as the basis of the individual and social human life.	/1, 3, 4, 6/
3	S	2	Outlook as the basis of the individual and social human life.	/1, 3, 4, 6/
4	S	2	Ontological aspects of the modern scientific knowledge	/1, 4, 5, 6/
5	L	2	Ontological aspects of the modern scientific knowledge. The consciousness problem in philosophy and science	/1, 4, 5/
6	S	2	Ontological aspects of the modern scientific knowledge	/1, 4, 6/
7	S	2	The consciousness problem in philosophy and science	/1, 4, 5, 6/
8	S	2	The consciousness problem in philosophy and science	/1, 4, 5, 6/
9	L	2	The theories of development and the philosophical and scientific thinking toolkit formation. Gnoseological and epistemological problems of modern science	/ 2, 4, 5 /
10	S	2	The theories of development and the philosophical and scientific thinking toolkit formation	/4, 5/
11	S	2	The theories of development and the philosophical and scientific thinking toolkit formation	/4, 5/
12	S	2	Gnoseological and epistemological problems of modern science	/ 2, 4/
13	L	2	Methodological problems of modern science	/2, 7-12/
14	S	2	Gnoseological and epistemological problems of	/2, 4/

			modern science	
15	S	2	Science in the philosophical angle	/2, 7-12/
16	S	2	Methodology of scientific cognition	/2, 7-12/
17	L	2	Social transformations and its influence on the science and technique development. Anthropological angles of science and technics	/4, 5, 13, 14/
18	S	2	Philosophical reflexion on society	/4, 5, 13, 14/
19	S	2	Technical and technological basis of the information society genesis.	/4, 5, 13, 14/
20	S	2	Anthropological roots of science and technics	/4, 5, 13, 14/

5. EXAM QUESTIONS

1. Worldview concept. The structure of worldview.
2. Basic historical types of worldview. Worldview and philosophy.
3. Philosophy concept. The subject and the method of philosophy.
4. Philosophy structure and functions.
5. Philosophy place in society.
6. Ontology. Basic ontological categories. Ontological monism and pluralism.
7. The genesis of the philosophical category of “the material” (“the matter”). The modern science about the material.
8. The space and the time as the philosophical categories.
9. The substantial and the relational space and time theories.
10. The worldview meaning of the Einstein’s theory of relativity.
11. The worldview meaning of the modern scientific cosmological and astrophysics theories about Universe (Hawking, Greene, Deutsch, Kaku, Guth, Linde, others).
12. Consciousness as the highest level of the spiritual human activity, the ideal reflection of the reality.
13. The development of the notions about the consciousness in classical philosophy.
14. Modern philosophy and science about the consciousness.
15. The structure of consciousness. Right and left hemispheres and their morphological and functional peculiarities.
16. The problem of the artificial intelligence and the consciousness.
17. The development as the philosophical problem, its formation. The basic philosophical theories of the development.
18. The dialectics, its peculiarities and historical forms.
19. The structure of dialectics: the principles, the categories and the laws.
20. The dialectics functions. The methodological meaning of dialectics.
21. The synergy paradigm of the development. The basic worldview and methodological principles of synergy (the stochastic determinism principle, the recognition of the universal and coordinate character of the natural processes, the recognition of the evolution as the universal one and the adaptation as the regular conduct of the complex self-organising systems of any nature).
22. The global evolutionism theory. “The evolution” and “the development” concept, their definitions. The general worldview and theoretical statements of the global evolutionism.
23. Gnoseological attitude to the world, its particularity. The basic cognitive strategies.
24. Modern gnoseological situation. The classical and not-classical epistemology.
25. The subject and the object of cognition. The matter and the aim of cognition.
26. The sensitive and the rational in cognition process. The stages of cognition.

27. The truth in the cognition theory, the truth aspects (ontological, logical semantic, valuable and emotional).
28. The correlation between the absolute and the relative truth in cognition.
29. The criterions of the truth.
30. The dynamics and the development of the science.
31. The types of knowledge before science. The mythological consciousness peculiarities. The germs of the scientific knowledge in the history of culture.
32. Unscientific, pseudoscientific knowledge. The problem of delimitation.
33. The science genesis, the main stages of its historical evolution. Science as the social institute.
34. Science in philosophical perspective (philosophy of science).
35. The science and technics interrelations. The scientific and technical progress phenomenon.
36. The differentiation of the scientific knowledge. The cognition peculiarities in humanitarian sphere.
37. The peculiarities of the modern stage of science development (differentiation and integration processes; intrusion of the technical resources).
38. The philosophical basis of the scientific investigation methodology (ordinary and scientific cognition essences; scientific investigation's method and methodology).
39. The logic of the scientific investigation process (scientific fact; the notion about the scientific problem, its statement and formulation; the content of the scientific idea, conception and hypothesis; the theory essence).
40. The content of the scientific investigation levels; methods of the empirical data collection (observation, experiment, comparison, measuring).
41. Methods of the empirical data theoretical consolidation (general logical methods; theoretical methods; historical and logical methods).
42. The types of the scientific investigation. Dissertation as the type of the scientific investigation.
43. The basic preconditions of the society emergency; the material and the spiritual interrelations problem in society.
44. Society as the object of the philosophical analyses: philosophical approaches in society investigation, the principles and the methodology of its investigation.
45. The formation and the civilisation approaches of society investigation, their comparison.
46. *The conceptions of post-industrial and informative societies. The post-industrial and informative societies connections with the industrial society.*
47. Society structure, the general characteristics of its basic components.
48. The social structure of society. The transformation of the K. Marx's theory on classes in the modern philosophical investigations.
49. The political system of society: the essence, the structure, the functions.
50. Civil society and political society: the essence and the comparison.
51. The meaning of technics and technologies in the modern philosophical investigations of the society.
52. Globalisation process. The basic aspects of globalisation.
53. The global problems of mankind, their complex character.
54. The human origin problem. The anthroposociogenesis theory; the problem of the correlation in human his biological and social sides.
55. The human in Marxism philosophy.
56. New interpretation of human's being in the European irrationalism.
57. The human, the individual, the individuality, the personality; the socialisation problem.
58. Freedom and responsibility as the human attributes.

59. The recognition of the human life finitude. Sense of life as the integrative characteristics of the human being.
60. The human in modern world. The transhumanism problem.

6. Essay topics

1. Outlook and philosophy – comparative analysis.
2. Outlook structure and varieties. Outlook place in human life.
3. Peculiarities of the historical appearance of philosophy. Philosophy and mythology.
4. Philosophy functions.
5. The being category in the history of philosophy.
6. The dialectics of the basic being forms.
7. Being problem in existentialism.
8. The meaning of the being problem in philosophy.
9. “The matter” concept evolution in philosophy and science.
10. Philosophy about the unity of the development, the matter, the space and the time.
11. Reflection as the common characteristics of the material. The forms of the reflection.
12. Reflection and information.
13. The decisive influence of sociality in the consciousness appearance.
14. The problem of the ideal. The consciousness ideality.
15. Consciousness and language.
16. The correlation between biological and social in the consciousness appearance process.
17. The problem of dialogue between human and computer systems.
18. K. Marx and Z. Freud about the unconscious and consciousness: comparative analysis.
19. Dialectics as the development theory.
20. Dialectics of the quantitative and qualitative changes.
21. Dialectical contradiction as the source of development.
22. The peculiarities of the negation of negation law.
23. Metaphysics as the theory of development alternative to dialectics.
24. Dialectical categories as the universal forms of thinking.
25. Cognition as a kind of the spiritual activity and the cultural phenomenon.
26. The truth criterions problem in philosophy and science.
27. Dialectics of the truth and the error in modern philosophy.
28. Basic gnoseological directions in modern western philosophy.
29. The correlation between the rational and the irrational, the discursive and the intuitive in the cognitive process.
30. Structure, forms and functions of practice in the cognitive process.
31. Practice as the specific human way of the world exploration.
32. Basic principles of the modern scientific gnoseology.
33. General and specific cognitive methods in natural, technical and social sciences.
34. Philosophical analysis of the truth problem.
35. Scientific cognition as a kind of the spiritual activity, theoretical way of the world reflection.
36. The structure of the scientific theory and its basic functions.
37. The classification of the scientific methods and the levels of the methodology.
38. The basic methods of the theoretical level of the scientific cognition.
39. Science and global problems of the present.
40. Differentiation and integration as the regularities of the science development.
41. Basic problems of the modern philosophy and science methodology.
42. Scientific forecast of the social processes.
43. Science and technics, their functions and place in the social development.
44. Analysis of the foreign philosophy of technics.
45. Technical sciences as a specific system of knowledge.

46. Humanism problem in the interrelations between humans and technics.
47. Cosmism ideas in the world and domestic philosophical mind.
48. Essence and basic directions of the modern stage of the scientific and technical revolution.
49. Basic social consequences of the scientific and technical revolution.
50. Scientific and technical progress, scientific and technical (informative) revolution and the contemporary social development.
51. Human in the information society.
52. Scientific world image and its outlooking essence.
53. Social prognosis: essence, methods and functions.
54. Creative work and outlook.
55. Technical creative work and its main forms.
56. The problem of the ultimate and the endless in the special sciences and philosophy.
57. Physical knowledge and the dialectical laws.
58. Systematic approach in the cognition of the reality.
59. Social and philosophical problems of the power engineering development.
60. Philosophy and informatics.
61. Natural scientific materialism of D.I. Mendeleev.
62. Dialectics and the periodical law of D.I. Mendeleev.
63. Futurology, its opportunities and limits.
64. Psychoanalysis and the human problem.
65. Human problem in existentialism.
66. Personality and society. Personality role in the history.
67. Dialectics of personality's freedom and responsibility at the contemporary stage of the world civilisation.
68. The laws of the society development and the conscious human activity.
69. Formation theory and the real modern historical process.
70. Producing forces and productive relations dialectics.
71. Progress and regress and the historical reality.
72. Political system as the object of the social and philosophical analysis.
73. Social consciousness forms dialectics.
74. Society as the system: basic elements of the social life.
75. Philosophical problems of the human and machine interrelations.
76. Braine and machine. Virtual reality.
77. Computer experiment as a method of the scientific cognition.
78. Logical and methodological angles of the technical knowledge.
79. Moral aspects of the scientific knowledge.
80. Aesthetic potential of the natural sciences.

LITERATURE LIST

Basic literature

1	Biletsky I., Malysenko A. Philosophy: Educational book. Kharkiv, 2010.
2	Муратова З. Г. Welcome to the World of Philosophy. Королев, 2005.
3	Ott Walter. Modern Philosophy. University of Virginia, <u>BCcampus</u> , 2013.
4	Payne Russ W. <u>An Introduction to Philosophy</u> . <u>BCcampus</u> , 2015.
5	Spirkin Alexander. Fundamentals of philosophy. M., 1990.
6	Essays in philosophy. From David Hume to Bertrand Russell / Edited and with notes by Houston Peterson. New York, 1959.
7	Wilber Ken. The spectrum of consciousness. Wheaton, Adyar, Madras, 1993.

Secondary literature

8	A letter Concerning Toleration. An Essay Concerning Human Understanding / John Locke; The principles of Human Knowledge / George Berkeley; An Enquiry Concerning Human Understanding / David Hume. Chicago, London, Toronto, Geneva, Sydney, Tokyo, Manila, 1987.
9	Augustine. The Confessions. The City of God. On Christian Doctrine. Chicago, London, Toronto, Geneva, Sydney, Tokyo, Manila, 1987.
10	Nietzsche. Thus spake Zarathustra. Hertfordshire, 1997.
11	Nietzsche. Twilight of the idols. Hertfordshire, 2007.
12	Plato. The Dialogues of Plato. Chicago, London, Toronto, Geneva, Sydney, Tokyo, Manila, 1987.
13	Spinoza. Ethics. Hertfordshire, 2001.

INFORMATION RESOURCES ON THE INTERNET

<https://open.umn.edu/opentextbooks/subjects/philosophy>
<http://philosophy.about.com/od/Philosophy-Study-Tools/tp/How-To-Read-Philosophy.htm>
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