



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Philosophy [S1MNT1>POH-Filoz]

### Course

Field of study

Mathematics of Modern Technologies

Year/Semester

4/7

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

15

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

0

### Number of credit points

1,00

### Coordinators

dr Radosław Kot

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### Lecturers

### Prerequisites

The student has basic knowledge of history and culture. can choose the appropriate sources of knowledge and obtain the necessary information from them and provide a critical analysis and evaluation of solutions for complex and unusual engineering problems, is aware of the need of deepening and expanding knowledge to solve newly born technical problems.

### Course objective

Obtaining knowledge on the history of philosophy, the role of philosophy in science and its impact on modern technology.

### Course-related learning outcomes

Knowledge:

- has basic knowledge necessary to understand social and ethical, economic, legal and other non-technical conditions of engineering activity; understands the impact of social and civilizational changes on the lifestyle of society [K\_W12(P6S\_WG)].

Skills:

- is able to perceive the non-technical aspects in formulating and solving engineering problems, including environmental, economic and legal ones [K\_U10(P6S\_UW)].

Social competences:

- is aware of the level of his knowledge in relation to the conducted research in science and technology [K\_K01(P6S\_KK)];
- is able to think and act in a creative and entrepreneurial way, taking into account the safety and ergonomics of work and its economic aspects, is aware of the need to initiate action for the public interest and of responsibility for the effects of the team and its participants work [K\_K03(P6S\_KO)];
- understands and appreciates the importance of intellectual honesty in the actions of its own and other people; is ready to demonstrate reliability, impartiality, professionalism and ethical attitude [K\_K04(P6S\_KR)];
- is aware of its social role as a graduate of a technical university, is ready to popularize scientific content to the society and to identify, when met, and resolve basic problems related to the field of study [K\_K05(P6S\_KR)].

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lectures:

- forming grade: by discussions and questions checking the degree of mastery of previously presented issues;
- final grade: essay on the previously accepted topic,

## Programme content

1. The essence, genesis, subject and functions of philosophy.
2. Stages of development of philosophy.
3. Theory of knowledge (gnoseology).
4. Theory of truth and cognitive discourse.
5. Science. The origins of modern science and its role in contemporary culture.
6. Theory of being (ontology).
7. Dialectics; processes and relationships.
8. Axiology: ethics and aesthetics.
9. Elements of social philosophy.
11. Currents of contemporary philosophy.

## Course topics

Human being a philosophizing creature in search of the meaning of its existence and the goals of its actions. Knowledge and motivation. Philosophy, worldview and ideology. The role of philosophy in the development of science and practical skills.

The main stages of the development of philosophical reflection. The structure of philosophical issues.

Individual criticism and thought formations. Basic directions of philosophy: materialism and idealism.

Criteria for dividing philosophy into materialism and idealism.

The place and role of knowledge in human action. The structure of the cognition process: subject, object, perception, thinking, concept. Knowledge and its role in the activities of individuals and communities.

Individual and collective knowledge - collectivization of knowledge.

Practice and theory of learning (The Learning Theory). Experiment and theory. Truth: truthfulness of knowledge, criteria of truthfulness. The scientific method and the falsification of theories.

Analysis of the subject being learned. The concept of reality. Matter and form; material unity and formal diversity. Individual entities and general entities, classes of entities.

Processes, time and space; causal relationship. Determinism, indeterminism. Necessity, chance, freedom. Matter and consciousness. Pyramid of entities and development.

The individual and society: morality, ethics, professional ethics. Good and evil; the issue of liability. Beauty and art

Foundations and forms of collective life. The concept of social formation. Way of production, way of thinking, culture. The mechanism of transformation of social formations: social conflict, revolution, regularities of social processes.

Analysis of social institutions: state and nation. Power, politics and forms of governance. Authoritarianism,

totalitarianism, democracy, anarchism. Pathologies of power and social life.

### Teaching methods

Lectures: lectures include interactions with students.

### Bibliography

Basic:

- R. Popkin, A. Stroll, Filozofia, Poznań 1994.

Additional:

- W. Dilthey, O istocie filozofii, Warszawa 1987;
- T. Kuhn, Struktura rewolucji naukowych, Warszawa 2001.

### Breakdown of average student's workload

|                                                                                                                                         | Hours | ECTS |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------|------|
| Total workload                                                                                                                          | 25    | 1,00 |
| Classes requiring direct contact with the teacher                                                                                       | 15    | 0,50 |
| Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation) | 10    | 0,50 |