

S.SEIFULLIN KAZAKH AGRO TECHNICAL UNIVERSITY

DEPARTMENT OF PHILOSOPHY  
(2708)

# **History and Philosophy of Science**

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# Theme 2. Ideological foundations of science

- **The purpose of the lecture:** revealing the features of scientific knowledge and the definition of the philosophical foundations of science.

# Plan:

1. Features of scientific knowledge.
2. Role of the philosophy in the development of science.
3. Humanistic horizons of science.

# Basic concepts:

- The objective laws of reality
- Perception of truth
- Philosophical Foundations of Science
- The language of science
- Culture of thinking

# Features of scientific knowledge:

- The main objective of scientific knowledge is the discovery of the objective laws of reality;
- The immediate goal and the supreme value of scientific knowledge - comprehension of objective truth;

# Features of scientific knowledge:

- Scientific knowledge opens the possibility not only of predicting the future, but also its formation;
- The language of science (both natural and artificial);
- Specific tools (scientific equipment);
- The culture of thinking scientist.

# Features of scientific knowledge:

- In modern methodology is also made other scientific criteria, such as rigor, consistency, verifiability, openness to criticism, reproducibility, etc.

# **Role of the philosophy in the development of science**

- Ontological foundations of science understand of the picture of the world, the laws of functioning and development.
- The epistemological foundations of science are the provisions of the nature of scientific knowledge.
- The logical foundations of science are science rules adopted abstraction, concept formation and statements.



# **Role of the philosophy in the development of science**

- The methodological foundations of science explain of the methods of opening and acquiring knowledge, methods of proof.
- Axiological foundations of science clarify of the practical and theoretical importance of science as whole or individual sciences in the overall system of science, about the purposes of science, scientific progress.

# **Role of the philosophy in the development of science**

- Ideological grounds are also a kind of philosophical foundations of science. The philosophy of science is the function of ideological interpretation. Philosophy helps justify belief, pushes to rethink certain positions and help transform spontaneously formed a human looks at an elaborate, well-founded understanding of the world.

# Humanistic horizons of science

- The science must recognize the limits of their efficacy and fruitfulness, to recognize the equality of these spheres of human activity and culture as religion, philosophy, art, and the ability to recognize the impact of non-rational ways of understanding of reality.

# Humanistic horizons of science

- The science is more interested in a way of itself as some kind of social and cultural reality includes a human subject, allowing the element of subjectivity in an objectively true knowledge. This is the modern trend of humanization of science.

# Humanistic horizons of science

- Modern science was a prerequisite for the preparation of the subject of knowledge and a prerequisite for the practical production activities. Modern knowledge is the premise of the production and reproduction of man as the subject of the historical process, as a person, as an individual, which significantly expands the humanistic horizons of the sciences.