

S.SEIFULLIN KAZAKH AGRO TECHNICAL UNIVERSITY

DEPARTMENT OF PHILOSOPHY  
(2708)

# **History and Philosophy of Science**

**Lecturer: Ainur Abdina** - Doctor of philosophical sciences,  
Associate Professor of Department of Philosophy

Astana 2018

# Ainur Kanapiyanovna Abdina

- 1991 - Belarusian State University, Philosophical and Economic Faculty
- 1997 - Candidate dissertation "The problems of philosophical anthropology: a tradition of irrationalism"
- 2007 - Doctoral dissertation "The Man in the integral culture"
- 2013 - Research internship at the University of Reading (UK)
- 2016 - Research internship (UNESCO, France)

# Questions

- Syllabus and Training Complex
- References
- Lectures, seminars, and independent work
- First intermediate control
- Second intermediate control
- Exam

# Theme 1. Introduction

- **The purpose of the lecture:** identification and formulation of the main goals, object and subject of the course, the analysis of science as a social institution, as well as the definition of the phenomenon of science and its place in the culture.

# Plan:

- 1. Subject of the course "History and Philosophy of Science."
- 2. Science as a social institution.
- 3. The place and role of science in culture: scientism and anti-scientism.
- 4. The phenomenon of science as a subject of special analysis: internalism and externalism.

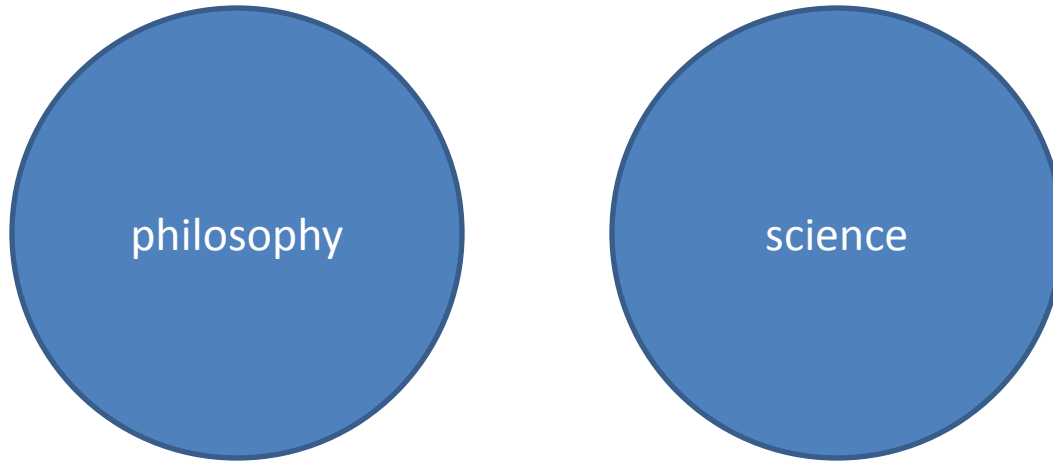
# Basic concepts:

- the history of science
- the philosophy of science
- the components of science as a social institution
- scientism and anti-scientism
- internalism and externalism.

# **"History and Philosophy of Science"**

- 1. What is a science?
- 2. When formed a science?
- 3. Why do we need to know the history of science?
- 4. What is a purpose of science?
- 5. What is a correlation the concepts of "philosophy" and "science"?

# Euler diagram





# The purpose of discipline

- to introduce graduate students to the structure of scientific knowledge, the methods of scientific research, the functions of scientific theories and laws;
- expansion of their ideological outlook;
- the development of the style of scientific thinking.

# Problems of the discipline

- The study of the basic ideas and the results of the philosophy and methodology of science;
- Knowledge of specific scientific research;
- Identification of the philosophical and methodological problems of the study of scientific knowledge;
- Assistance to independent and critical thinking.

# Object and Subject

- The object of the course "The history and philosophy of science" is science as a cognitive activity, tradition, a social institution and as a special sphere of culture.
- The subject of the course is the study of the general laws of scientific knowledge in its historical development and the changing social and cultural context.

# Science as a social institution

- is a special, relatively independent form of social consciousness and the sphere of human activity, serving as a historical product of a long development of human civilization, spiritual culture, to develop their own styles of communication and interaction of people, forms of division of labor research and standards consciousness of scientists.

# **As a social science institute includes the following components:**

- Combination of knowledge and their carriers;
- The existence of specific cognitive goals and objectives;
- The performance of certain functions;
- Availability of specific means of learning and institutions;
- To develop forms of monitoring, review and assessment of scientific advances;
- The existence of certain sanctions.

# Scientism

- From the perspective of scientism, scientific knowledge is the highest cultural value and sufficient condition for human orientation in the world. Ideal for scientism are the results and methods of natural sciences. At the same time scientism downplayed or even denied by the social sciences as having no cognitive value and rejected the humanistic nature of science itself.

# Anti-scientism

- Anti-scientism underlines the limitations of science, and in its extreme forms, interprets it as a force alien and hostile to the true essence of human virtue, destroying culture.

Methodological basis of anti-scientism is absolutisation negative results of science and technology (the aggravation of the ecological situation, the danger of war, etc.)

# Internalism

- Internalism makes the emphasis on factors related to the intrinsic nature of scientific knowledge. Paradigms, methodological programs and other ways to solve scientific problems, in other words, its own cognitive tools of science is an essential factor in its development. Therefore, the main focus on the study of science supporter's internalism directed to the description of actual cognitive processes.



# Externalism

- Externalism considers that science arise due to her external social, economic, political circumstances. Therefore, the main task of the science is the reconstruction of social and cultural conditions and orientations of scientific and cognitive activity at certain stages of development of science.