

S.SEIFULLIN KAZAKH AGRO TECHNICAL UNIVERSITY

DEPARTMENT OF PHILOSOPHY  
(2708)

# **History and Philosophy of Science**

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# Theme 4. The emergence and establishment of science

- **The purpose of the lecture:** historical and logical analysis of the stages of formation and development of science.

# Plan:

1. Previous science of Ancient World.
2. Scientific knowledge in the Middle Ages.
3. Medieval universities.

# Basic concepts:

- Previous science
- Syncretism
- Secularization
- The relationship between science and religion
- Theocentricism

# Previous science of Ancient World

- Ancient India
- Veda in Sanskrit means knowledge.
- Ayurveda is the knowledge of life, the science of life.
- Creating a positional decimal system with zero (4888 - MMMMDCCCLXXXVIII).
- Astronomy - Earth moves around its axis, solar and lunar eclipses.

# Previous science of Ancient World

- Ancient China
- Pentateuch (U-ching).
- Yin and Yang - the category of Chinese philosophy, expressing the idea of a universal dualism of the world (binary classification).
- Hieroglyphics (214 keys).
- "Mathematics in nine books» (II century BC.)
- Joseph Needham (1903-1985 biennium).

# Previous science of Ancient World

- Antiquity
- First principle, substance, arche.
- The doctrine of the Logos.
- Pythagorean union.
- The atomic theory.
- Sophists.
- Antique classic.
- Research of Antiquity.

# Scientific knowledge in the Middle Ages

- The Islamic Renaissance.
- «Dixit Algorizmi».
- Al-Farabi "Word on the classification of the sciences."
- Avicenna "The Canon of Medicine".
- Theocentrism.
- Thomas Aquinas - The rational proof of the existence of God.



# Medieval universities

- The first universities of East and West
- History and development
- Subject Matter
- Forms of teaching