Level: bachelor

Course title: History of Astronomy

Status: elective

ECTS: 6

Requirements: none

Learning objectives

Introducing students to the history and development of astronomy from ancient times to the end of the twentieth century, with special emphasis on general astronomical knowledge and theories.

Learning outcomes

Minimal: Understanding the historical development of astronomy and development of basic astronomical theories. Understanding the role of astronomy in Mesopotamia, Ancient Greece, India and Arab world in the development of astronomy in Renaissance Europe. Understanding the origin of modern astronomy as a process of interaction of navigation, astronomy, mathematics, natural sciences and social processes.

Desired: The successful student will be able to understand the effects of previous astronomical research on the emergence of modern astronomical concepts and theories. Student will also learn about the life and work of a number of famous astronomers.

Syllabus

Theoretical instruction

Origin and periods in astronomy. Astronomy in Egypt and Mesopotamia. Development of Greek and Hellenistic astronomy, Eudoxus, Hipparchus and Ptolemaeus. Astronomy in the Middle Ages, especially in India and astronomy in the Arab world from VIII till XV century. Astronomy in the Renaissance, XV and XVI century. Regiomontanus. Origin of the heliocentric theory, Copernicus, Brahe, Galileo, Kepler, Descartes, Newton. Astronomy in XVIII century, Herschel. Origin of astrophysics and development of astronomy in the XIX century. Discovery of the structure of matter and the development of astronomy in the XX century. The role of astronautics on development of astronomy.

Practical instruction

Calculation exercises, other forms of teaching, student research work.

Weekly teaching load				Other:
Lectures:	Exercises:	Other forms of teaching:	Student research:	
3	1	1		