

Level: bachelor				
Course title: Astrophysics with astronomy				
Status: obligatory				
ECTS: 6				
Requirements: Modern experimental physics I				
Learning objectives Introduction to the basic concepts of astrophysics and astronomy, and obtaining a general picture of the origin and structure of the Universe.				
Learning outcomes Upon completion of the course, students should possess: <ul style="list-style-type: none"> - General abilities: understanding of the origin and structure of the Universe and all of its elements. - Subject specific abilities: basic knowledge of the origin and structure of the Universe; knowledge of the types and structure of galaxies, star systems and stars. 				
Syllabus <i>Theoretical instruction</i> Development of understanding of the origin and structure of the Universe. Solar system. Photometric and spectral properties of the stars. Classification of stars. Internal structure of the stars. Equations of equilibrium. Energetics of the stars. Nuclear reactions as sources of energy of stars. Star evolution. The final stages of star evolution. Galaxies. Fundamentals of cosmology. Standard cosmological model. <i>Practical instruction</i> Problem solving exercises based on the theoretical part.				
Weekly teaching load				Other:
Lectures: 3	Exercises: 2	Other forms of teaching:	Student research:	