

Course Unit Descriptor

<b>Study Programme:</b> Bachelor Academic Studies in Physics			
<b>Course Unit Title:</b> General Astrophysics			
<b>Course Unit Code:</b> F18OASTF			
<b>Name of Lecturer(s):</b> Full Professor Tijana Prodanovic			
<b>Type and Level of Studies:</b> Bachelor Academic Degree			
<b>Course Status (compulsory/elective):</b> Elective			
<b>Semester (winter/summer):</b> Winter			
<b>Language of instruction:</b> English			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face			
<b>Number of ECTS Allocated:</b> 6			
<b>Prerequisites:</b> None			
<b>Course Aims:</b> Obtaining basic and general knowledge in astrophysics			
<b>Learning Outcomes:</b> After the successful completion of this course student will have general knowledge in astrophysics, will be familiar with fundamental physical laws, astrophysical models, will understand fundamental processes important for celestial object and astrophysical systems. Student will know how to solve problems related to measuring radiation and distance to astronomical objects, will understand their appearance and motions, will understand celestial phenomena. After the completion of this course student will be able to follow more advanced and specific courses in the field of astrophysics.			
<b>Syllabus:</b> <i>Theory</i> Measuring radiation in astrophysics (photometry, spectrometry, polarimetry); Effects of Earth's atmosphere; space observations; Solar system and formation; Stars (birth, radiation, stability, spectral classes, evolution); Sun; Binary systems; Variable stars; Stellar associations; Galaxies (types and origin); Milky Way; Galaxy clusters; Large-scale structures; Velocities of galaxies; Dark matter; Hubble's Law; Measuring distances; Cosmology.  <i>Practice</i> In order for students to better adopt freshly learned concepts a lot of attention will be given to practical exercises and problem solving by applying physical laws and models on astrophysical systems, which will be of help in completing homework problem sets and help students prepare for written part of the exam.			
<b>Required Reading:</b> B. W. Carroll, D. A. Ostlie, An Introduction to Modern Astrophysics, Addison Wesley Publishing Company, 1995.			
<b>Weekly Contact Hours:</b>	<b>Lectures:</b> 5	<b>Practical work:</b> 3	
<b>Teaching Methods:</b> Lectures, practical work and seminars			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points

Active class participation	5	written exam	30
Practical work	20	oral exam	30
Preliminary exam(s)	-	.....	
Seminar(s)	15		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			