

Study programs: Bachelor studies – Astronomy and astrophysics				
Course name: Positional astronomy				
Lecturers: Bojan Novaković				
Status: Compulsory				
ECTS: 6				
Attendance prerequisites: General astronomy 1 and General astronomy 2				
Course aims: Acquisition of general and specific knowledge necessary for reduction of the astronomical observations.				
Course outcome: Upon completion of the course, the student has the basic tools to calculate changes of the celestial bodies position which are dependent on observer's location and his speed.				
Course content: 1. Reduction of astronomical observations. Ephemeris calculation. 2. Refraction. Approximate formulas for refraction. Refraction in radially symmetric atmosphere. Differential equation of refraction. Refraction tables. 3. Parallax. Shape and dimension of the Earth. Coordinates of the point on the Earth. Diurnal parallax. Influence of diurnal parallax on equatorial and alt-azimuth coordinate systems. Annual parallax. Influence of the annual parallax on ecliptic and equatorial coordinates. Calculation of the star parallaxes. 4. Aberration. Basic equation of the special theory of relativity. Relativistic and classical interpretation of the aberration. Secular aberration. Annual aberration and its influence on equatorial and ecliptic coordinates.				
Literature: 1. M. Kyzmanoski: Položajna astronomija , Beograd, 1997 2. Richard De Grijs: An Introduction to Distance Measurement in Astronomy , John Wiley & Sons Ltd, 2011 3. D. Zagrebin: Uvod u astrometriju (russian), 1966				
Number of hours: 5	Lecures: 3	Tutorials: 2	Laboratory: -	Research: -
Teaching and learning methods: Frontal, Group, Lectures, Exercises				
Assessment (maximal 100 points)				
Course assignments	points	Final exam	points	
Lectures	10	Written exam	20	
Exercises / Tutorials	-	Oral exam	40	
Colloquia	-	Written-oral exam		
Essay / Project	30			