

Study programs: Bachelor studies – Astronomy and astrophysics				
Course name: Ephemeris astronomy 1				
Lecturers: Anđelka Kovačević				
Status: Compulsory				
ECTS: 5				
Attendance prerequisites: No prerequisites				
Course aims: The acquisition of general and specific knowledge of construction and distribution of the almanacs and catalogs. Student preparation for effective calculation of the kinematic, dynamic and physical parameters of the celestial bodies, systems and the Universe.				
Course outcome: Upon course completion, students has necessary knowledge of theory and practice of calculation of kinematic, dynamic and physical parameters of celestial bodies, systems and the whole Universe. At the same time, students do their astronomical experiments based on their obtained experiences and with assistance of mathematical and numerical tools.				
Course content: Introduction: Vector and tensor calculus, linear algebra, spherical trigonometry: basic concepts. Categories – time and space. History of the problem. Astronomical notations and conventions. Ephemeris part: In the narrow concept: Solar system, in the wider concept: Galaxy and Meta-galaxy. Ephemeris of the Solar system bodies (artificial ones included). Ephemeris of the Solar System. Ephemeris of the local systems. Artificial celestial objects: Analogues: system Earth-Moon, Solar System, bigger systems.				
Literature: 1. S. Segán: <i>Astronomske efemeride</i> , lecture notes (2006) 2. S. Segán: <i>Set lekcija iz efemeridske astronomije pod radnim naslovom "Lekcije po redu i bez reda"</i> 3. Kenneth Seidelmann: <i>Explanatory Supplement to the Astronomical Almanac</i> (1992) 4. IAU Resolution I, II, III (2006) etc. 5. Astronomical Almanac				
Number of hours: 5+	Lecures: 3	Tutorials: 2+	Laboratory: -	Research: -
Teaching and learning methods: Frontal, Interactive, Group, Tutorial, Lectures, Exercises				
Assessment (maximal 100 points)				
Course assignments	points	Final exam	points	
Lectures	15	Written exam	0	
Exercises / Tutorials	30	Oral exam	20	
Colloquia	15	Written-oral exam		
Essay / Project	20			