

<b>Study programmes:</b> Astronomy and Astrophysics – Bachelor studies				
<b>Course name:</b> Basic software tools in astronomy				
<b>Lecturers:</b> Bojan Arbutina				
<b>Status:</b> Compulsory				
<b>ECTS:</b> 5				
<b>Attendance prerequisites:</b> None				
<b>Course aims:</b> Introducing with basic software tools in astronomy.				
<b>Course outcome:</b> At the end of the course, student acquires basic knowledge in working with software tools used in astronomy. Student is prepared for further scientific work.				
<b>Course content:</b> Introduction to programs for data processing used in astronomy: IDL, MatLab, ORIGIN. Basic programming in Fortran. Introduction to the Linux environment. Working in Gnuplot. Introduction to programs used for image processing in astronomy: IRAF, IRIS, fv, Karma, ds9. Introduction to FITS format. Introduction to programs for text editing: LaTeX, HTML. Working in text editors: WinEdt, UltraEdit, Kile. Introduction to network protocol: SSH Secure shell.				
<b>Literature:</b> 1. Fanning, W. D.: 2003, IDL Programming Techniques, Fanning Software Consulting Starck, J.L., Murtagh, F.: 2006 2. Astronomical Image and Data Analysis, Springer-Verlag London 3. Samardžić, A., Nenadić, G., Janičić, P.: 2003, LaTeX 2e za autore, Kompjuter biblioteka, Čačak 4. Gustafsson, F., Bregman N.: 2003, MatLab for engineers explained, Springer-Verlag, London 5. Đurović, D., 1979, Matematička analiza astronomskih podataka, Privredno-Finansijski vodič, Beograd				
<b>Number of hours:</b> 4	<b>Lecures:</b> 2	<b>Tutorials:</b> 2	<b>Laboratory:</b> -	<b>Research:</b> -
<b>Teaching and learning methods:</b> Frontal / Individual / Interactive / Tutorials / Lectures / Exercises				
<b>Assessment (maximal 100 points)</b>				
<b>Course assignments</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>	
Lectures	-	Written exam	50	
Exercises / Tutorials	20	Oral exam	-	
Colloquia	-	Written-oral exam	-	
Essay / Project	30			