

Software Systems for Astronomy
Course Syllabus
(last update 06.nov.2015)

Day #	DoW	Topics	Pages*	Session
1	Mo	Observation Planning Software: Airmass Plotting Tools; Target Planning	3-13	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
2	Tu	Target planning (continued); Choice of Languages: C/C++; Python; IDL (+ Java, PHP, PERL, CSH, IRAF)	15-19	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
3	We	Choice of Languages (cont.); Data and Data Archives Pt. I: FITS Format, Data Reduction Software	23-26	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
4	Th	Data and Data Archives Pt. II: Data Reduction Software (cont.); Image Display Tools	27-36	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
5	Fr	Control Systems Pt. I: <i>Telescope Control:</i> Axes Control; Time; Pointing and Tracking; Auto-guiding	39-50	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
6	Mo	Control Systems Pt. II: <i>Telescope Control:</i> Auto-guiding (cont.); Offset and non-sidereal guiding; Field Rotation	51-61	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
7	Tu	Control Systems Pt. III: <i>Telescope Control:</i> Active Optics and Adaptive Optics	62-72	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
8	We	Control Systems Pt. III: Adaptive Optics - guide star tools and web services + Control Systems Pt. IV: <i>Instrument Control</i>	73-78	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
9	Th	Control Systems Pt. V: <i>Instrument Control (cont.)</i> + The Future of SSFA Pt. VI	79-92	Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)
10	Fr	Student Presentations		Lecture (9:00-10:15)
				Lecture (10:30-11:45)
				Lab (1:00-2:15)
				Lab (2:30-3:45)

* - Page numbers refer to the textbook: *Software Systems for Astronomy* (ISBN-13: 978-1461470571)