

PRELIMINARY Course curriculum: Automation 2021/22 (study period 3). Things may change due to new restrictions etc.

The lectures are given via Zoom (will also be recorded) at:

Mondays: 08.15-10, Wednesdays: 15.15-17, Thursdays: 08.15-10.

Exercises are transformed into Q&A seminars (also via Zoom) where students may ask about calculation problems, simulation tasks, lab preparations etc on Tuesdays 08.15-10 during study weeks 2-7.

Wk	Day	Lecture	Staff	Book	Simulation & Lab work	
1	Mon Jan 17	Introduction Administrative matters	UJ/GL/ RS	Chap 2		
	Tue					
	Wed	Markov chains	UJ	Chap 6		
	Thu	Markov processes	UJ	Chap 6		
	Fri Jan 21					
2	Mon Jan 24	Birth-death processes	UJ	Chap 6		
	Tue	Exercise 1	UJ/GL			
	Wed	Dynamic systems 1	UJ	Chap 3		
	Thu	Dynamic systems 2	UJ	Chap 3		
	Fri Jan 28					
3	Mon Jan 31	<i>Exercise Markov/Dynsys</i>	UJ	Chap 3, 6		
	Tue	Exercise 2	UJ/GL			
	Wed	Disc. control concepts	GL	Chap 5, 14		Deadline Simu. Exercise 1 (Markov) Feb. 2 (UJ)
	Thu	Discrete event control 1 (ladder)	GL	Chap 13		Lab exercises handed out
	Fri Feb 4					
4	Mon Feb 7	<i>Exercise control concepts</i> <i>Lab exercise 1 survey</i>	GL/RS	Chap 5, 13, 14		
	Tue	Exercise 3	UJ/GL			
	Wed	Discrete event control 2 (SFC)	GL	Chap 13		Deadline Simu. Exercise 2 (DynSys) Feb. 9 (UJ)
	Thu	Real-time control	GL	Chap 15		Laboratory exercise I (RS)
	Fri Feb 11					
5	Mon Feb 14	<i>Exercise control</i> <i>Lab exercise 2 survey</i>	GL	Chap 13, 15	Laboratory exercise 2 (RS)	
	Tue	Exercise 4	UJ/GL			
	Wed	Cont. control concepts (PID)	GL	Chap 4		
	Thu	Cont. control concepts (tools and methods)	GL	Chap 4		
	Fri Feb 18					
6	Mon Feb 21	Communication & HMI <i>Lab exercise 3 survey</i>	GL/RS	Chap 16 & extra material	Laboratory exercise 3 (RS)	
	Tue	Exercise 5	UJ/GL			
	Wed	Process supervision	UJ	Chap 9, 10, 11		
	Thu	Guest lecturer: Prof. em. Gustaf Olsson	UJ	Chap 2 and more		
	Fri Feb 25					
7	Mon Feb 28	<i>Exercise supervision</i>	UJ	Chap 9, 10, 11		
	Tue	Exercise 6	UJ/GL			
	Wed	<i>Simulation ex. summary</i>	UJ	Simu task 1&2		
	Thu	Course repetition	UJ/GL	All chapters		
	Fri March 4					
8		Self studies	All course material		Extra lab if required	
9	Wednesday March 17	Exam	UJ/GL	Allowed on the exam	Time: 08:00 - 13:00 Victoria: 2A + 2B	

Teaching staff: Assoc. Prof. Ulf Jeppsson (UJ), Assoc. Prof. Gunnar Lindstedt (GL) and Dr Ramesh Saagi (RS). **Examiner:** Assoc. Prof. Ulf Jeppsson.