Market-driven Systems, FRTN20, spring 2011
Draft 2011-03-09

Administration
Responsible for the course is associate professor Charlotta Johnsson (046-222 87 89) at the Department of Automatic Control. Secretary of the department is Eva Westin (046-222 87 87). Their offices are on the 2nd and 5th floor of the Mechanical Engineering building.

Prerequisites
Automatic Control, Basic Course, (FRT010)

Course Material
The course material consist of a set of articles and chapters from various books.
The material is collected in a binder that can be bought at the Department of Automatic Control. The binder will also be sold at the lectures and exercise sessions during the first week of the course.

Lectures
The lectures are given as follows:
> Tuesdays 8.15-10.00
> Thursdays 10.15-12.00

The lectures on Tuesdays are given in M:D except for the first lecture which is given in M:B. The lectures on Thursdays are given in M:E

The lectures are given by Charlotta Johnsson (046-2228789), Anders Rantzer (046-2228778), and Bo Bernhardsson (046-2228786), and guest lecturers.

Exercise sessions
The exercise sessions are given as follows:
> Wednesdays 8.15-10.00
> Fridays 8.15-10.00

The exercise sessions are given in M-L2 (M-building).

The teaching assistants are Per-Ola Larsson (046-2228793) and Pontus Giselsson (046-2224287), M-building 2nd floor.

Laboratory sessions
The two laboratory sessions are mandatory and are given in connection to different parts of the course. Booking lists are posted on the web page. Before the lab sessions some home assignments have to be completed. No reports are required after the labs.

Lab	week	date	Room	Responsible	Content
1	13	28/3-1/4 halfday	LabB	Per-Ola Larsson/Pontus Giselsson	Batch Control
2	15	12/5-15/5 halfday	LabB	Per-Ola Larsson/Pontus Giselsson	Distributed Systems

Exam
The exam is given Wednesday May 27, 2011 at 14:00-19:00 in room MA9E and MA9F (30 seats). A second occasion is given on Monday August 22, 2011 at 14:00-19:00 in room MA8. No lecture handouts, exercise materials or hand-written notes are allowed.

Weekly plan

Week	Date	Lecture	Content	Who
11	15/3	L1	Intro Continuous systems	Charlotta Johnsson
	16/3	E1		PerOla/Pontus
	17/3	L2	Discrete Systems	Charlotta Johnsson
	18/3	E2		PerOla/Pontus
12	22/3	L3	Batch Systems	Charlotta Johnsson
	23/3	E3		PerOla/Pontus
	24/3	L4	Manufacturing Operation Systems Key Performance Indicators	Charlotta Johnsson
	25/3	E4		PerOla/Pontus
	25/3	Extra	Project information (start-up)	Charlotta Johnsson
13	29/3	L5	Model Predictive Control	Anders Rantzer/Bo Bernhardsson
	30/3	E5		PerOla/Pontus
	31/3	L6	Guest lecture	Krister Forsman, Perstorp
	1/4	E6	--	
	28/3- 1/4	Lab 1	LAB: Batch Control	PerOla/Pontus
14	5/4	L7	Distributed control with prices	Anders Rantzer
	6/4	E7		PerOla/Pontus
	7/4	L8	--	--
	8/4	E8	--	--
15	12/4	L9	Game theory I	Bo Bernhardsson
	13/4	E9		PerOla/Pontus
	14/4	L10	--	--
	15/4	E10	---	--
	12- 15/4	Lab 2	Distributed systems	PerOla/Pontus
Easter-holiday (3 weeks)				
19	10/5	L11	--	
	11/5	E11	--	
	12/5	L12	--	
	13/5	E12	--	
20	17/5	L13	Guest lecture (tentative date)	Kurt Jörnsten
	18/5	E13	Project presentations	
	19/5	L14	Summary of the course	
	20/5	E14	Q-A	
21	27/5	Exam		