

International Market-Driven Engineering, Fall 2014

(Date: 2014-09-15)

Administration

Responsible for the course in Sweden is associate professor Charlotta Johnsson (+46 46 222 87 89) at the Department of Automatic Control, LTH, Lund University.

Prerequisites

The Swedish students should be accepted to Technology Management at Lund University. The Chinese students have to apply to the course.

Course Description

The course is a joint course with Zhejiang university in China. It will intertwine the two disciplines Technology and Management, in Sweden and in China, in four ways; Students, Teachers, Subjects and Cultures.

- Subject: the focus will be on Innovation and Product Development, a subject that is of great relevance from both the technical aspect as well as the economical and management aspect. The course will contain both lectures and a project. For the Swedish students the course will also contain a few lectures on Chinese culture. At the end of the course the students should present their project through a written project report and an oral presentation.
- Students: The course should be given to the 40 Swedish students from the Technology Management (20 from LUSEM and 20 from LTH) together with, a minimum of 20 Chinese students (10 from SoM and 10 from the technical departments (ID and CSE)).
- Teachers: Teachers from both Sweden and China and from both Engineering (LTH, ID and CSE) and Management (LUSEM and SoM) will be involved in the lectures. A minimum of two teachers with different aspects of the subject matter will be present at each lecture.
- Cultures: The cultural aspects of project management and business behavior will be treated in the course and practiced in real life through the course project.

Course homepage: <http://www.control.lth.se/Education/EngineeringProgram/TMAF05.html>

Course Material

The course material will consist of lecture notes, articles and chapters from various books.

Lectures and Projects

The course will start in China on Monday September 15th 2014 and end no later than Friday October 24th 2014. For the Swedish students there will be lectures in Sweden in the period of Monday 1/9-Wednesday 10/9.

Preliminary special dates in China:

- 28/9: workday in China (Saturday), lectures possible
- 1/10-7/10: National holiday, no lectures

The course will contain lectures and a project. The project will be performed in groups of 7-10 students, i.e., 4-5 Swedish students and 3-5 Chinese students. For the Swedish students there will also be a set of lectures on Chinese culture (Lcc).

The course schedule is shown in the chapter Weekly Schedule.

- The first day, Monday Sept 15th in the morning, at 9-11 am, an introduction to ZJU will be given by International College. All Swedish students will meet at 09.00 in the entrance hall of International College, Yuquan campus.
- All course-lectures will be given at Xixi campus, classroom D:201, Art Building, Xixi Campus, Zhejiang University.

- The lecture time is 9.15-12.00 (except Monday Sept 15th when the lecture time will be 13.15-16.00).
- A total of six (6) coaching sessions will be provided in the afternoons 13.00-16.00 and in conjunction with the lectures (except coaching-6). Location for the coaching sessions will be the same as the lecture hall.
- Swedish students only: lectures on Chinese-Culture (Lcc) will be given by International College at Yuquan campus (lecture hall and exact time is determined on a running basis).

Each group should make a project. Each year the projects have a theme

- 2012: Helping every day life
- 2013: Inclusion
- 2014: **Clean air** (VolvoCars)

In the project, the groups should come up with an invention related to the theme. Each group will have a budget of max 1000 Yuan (receipts needed). The groups should present their invention at the last lecture. The presentation should contain:

- A written report that presents the invention.
- An oral presentation of the work (the invention, its business plan, teamwork etc).
- A demonstration of the prototype.
- A film (approx. 3 minutes long) made by the group regarding the teamwork and the innovation.

Company visits

There will be two company visits;

- Supcon in Hangzhou
- VolvoCars in Shanghai.

It is forbidden to bring cameras (including mobile phones) to the visit at VolvoCars.

Examination

The examination is the written report, the oral presentation and the film.

- A written report, including the business plan, should be handed in on Monday 22/10.
- An oral presentation should be made, presenting the invention, its business plan and the teamwork.
- The oral presentation should also show the film (approximately 3 minutes long).

The grade will be pass or fail. For the Swedish students the course will result in 7 hp.

Additional information

For more information please contact:

- Charlotta Johnsson (email: charlotta.johnsson@control.lth.se)
- Carl-Henric Nilsson (email: carl-henric.nilsson@gmail.com)

Weekly schedule 2014

L=Lecture

- Lecture hall: Classroom D:201, Art Building, Xixi Campus, Zhejiang University.
- Lecture time: 09.10-12.00, except Monday Sept 15th when it will be 13.50-16.00 (start 13:15).

Lcc= Lecture on Chinese Culture (Swedish students only)

- Lecture hall: International College at Yuquan campus (George announces the lecture rooms)
- Lecture time: 2 hours in the morning or afternoon (George announces the exact time).

<i>Week</i>	<i>Date</i>	<i>Time</i>	<i>Lecture and content</i>	<i>Responsible teachers</i>
36	1/9 (In conjunction with the TMAN50 (GTE) course.	13.15 – 16.00 See TMAN50 for more info regarding time and lecturehall	L-intro Introduction to iMDE for the Swedish students	TM-responsible
	3/9	13-15 Lecture hall to be announced	Extra lecture on aerosol	
37	8-12/9			
Week 38				
Week 38	Mo.15/9	9-11	Lcc (Introduction to ZJU)	International College
		13-16	L1 (Introduction)	Anders Warell, LTH Charlotta Johnsson, LTH Jun Jin, ZJU
	Tu. 16/9	9-12	--	
		13-16	L2 (Inspiration)	Anders Warell, LTH Charlotta Johnsson, LTH
	We. 17/9	9-12	L3 (Ideation)	Anders Warell Charlotta Johnsson, LTH
		13-16	Coaching-1 (1 hour per group)	Anders Warell, LTH Charlotta Johnsson, LTH
	Th. 18/9	2h (exact time not known)	Lcc (Chinese Culture: Survival Chinese)	International College
	Fr. 19/9	9-12	L4 (Implementation) Lecture hall: room 103, main building, Xixi campus	Anders Warell, LTH Charlotta Johnsson, LTH Jun Jin, SoM
13-16		--		
Week 39				
Week 39	Mo. 22/9	9-12	visit to JORCEP (new campus)	Erik Forsberg (JORCEP) Anders Warell, LTH Jun Jin, SoM, Qinmin Yang, CSE
		13-16	Coaching på JORCEP	
	Tu. 23/9	2h (exact time not known)	Lcc (Chinese Culture: Survival Chinese)	International College
	We. 24/9	9-12	L6 (Innovation cultures and Business plans)	Jun Jin, SoM Anders Warell
		13-16	Coaching-2 (1 hour per group)	Anders Warell, LTH Jun Jin, SoM, Damien Motte, LTH

	Th. 25/9	All day	Visit to company: Volvo in Shanghai	Qinmin Yang, CSE Anders Warell, LTH, Damien Motte, LTH, Jun Jin, SoM (?) Approximate times: Leave at 7.15 Arrive at Volvo 10.15 Visit 10.30-13.00 Lunch 13.00-14.00 Return 14.30 Back in Hangzhou 17.30
	Fr. 26/9	2h (exact time not known)	Lcc (Chinese Culture: Interesting Chinese characters)	International College
	Sunday 28/9		Note: workday in China	
Week 40				
	Mo. 29/9	9-12	L7 (Product Development, Sourcing and Production)	Damien Motte, LTH Qinmin Yang, ZJU Jun Jin, SoM
		13-16	Coaching-3 (1 hour per group)	Damien Motte, LTH Jun Jin, ZJU (?)
	Tu. 30/9	2h (exact time not known)		International College
	We. 1/10		Holliday in China 2014 (National Day)	
	Th. 2/10		Holliday in China 2014 (National Day holiday)	
	Fr. 3/10		Holliday in China 2014 (National Day holiday)	
Week 41				
Week 41	Mo. 6/10		Holliday in China 2014 (National Day holiday)	
	Tu. 7/10		Holliday in China 2014 (National Day holiday)	
	We. 8/10	4h (exact time not known)	Lcc (Chinese Culture: Visit to Museums by Grand Canal)	International College
	Th. 9/10	All-day	Visit to company SupCon	Qinmin Yang, CSE
	Fr. 10/10	2h (exact time not known)	Lcc (Chinese Culture: New Media and Chinese Society)	International College
Week 42				
Week 42	Mo. 13/10	9-12	L8 (Marketing and Sales)	Weiqing XU, SoM Carl-Henric Nilsson, LUSEM
		13-16	Coaching-4 (1 hour per group)	Carl-Henric Nilsson, LUSEM Charlotta Johnsson,LTH Jun Jin, SoM

	Tu. 14/9	2h (exact time not known)	Lcc (Chinese culture: Traditional Chinese Painting)	International College
	We. 15/10	9-12	L9 (Entrepreneurship)	Charlotta Johnsson, LTH
		13-16	Coaching-5 (1 hour coaching per group)	Carl-Henric Nilsson, LUSEM Charlotta Johnsson, LTH Jun Jin, SoM Qinmin Yang, ZJU
	Th. 16/10			
	Fr. 17/10	2h (exact time not known)	Lcc (Chinese culture: Chinese Consumer Behavior)	International College
Week 43				
Week 43	Mo. 20/10	9-12	Coaching-6 (1 hour per group)	Carl-Henric Nilsson, LUSEM Charlotta Johnsson, LTH
		13-16	--	
	Tu. 21/10	2h (exact time not known)	Lcc (Chinese culture: Chinese Paper Cutting)	International College
	We. 22/10	9-17 (all day)	L10 (Final presentations) (alternative day 23/10)	All teachers
	Th. 23/10	9-17 (all day)	L10 (Final presentations) (alternative day 22/10)	All teachers
	Fr. 24/10	9-13	L11 (Summary-End of course) (to be used if needed)	All teachers (to be used if needed)
Week 44				
Week 44	27/10 - 31/10		Week of examinations in Lund	
Week 45				
Week 45	3/11 - 7/11	6/11 kl 12-17 (to be confirmd)	Final presentation in Sweden for the Swedish students. This event is held in con-junction with the final presentation in course TMAN50 (GTE)	All Swedish teachers