

# Industrial information and control systems

# Projektstyrning/Management of projects EH2010/EH2720 (7.5 ECTS)

Course plan for the academic year 11/12

#### Examiner

Assistant Professor Joakim Lilliesköld

#### Course leaders

Course leaders are Ulrik Franke (main responsible), Pia Närman, Johan König, and Claes Sandels. To contact us, please send an e-mail to the common e-mail address <a href="mailto:pstyr@ics.kth.se">pstyr@ics.kth.se</a>.

## The objectives and goals of the courses

The development and delivery of complex industrial systems require effective routines and methods of project management. Project management includes planning, implementation, management, tracking and documentation during the various phases of a project. After the course, the participants should understand the role of a project manager and be familiar with:

- Planning and implementing a risk analysis
- Performing an analysis of an industrial project
- The various phases of a project, i.e. planning, tracking and completion of a project.
- Project activities such as planning, project meetings, documentation and oral presentations
- Methods and tools for planning and tracking a project with regard to time, costs and resources
- Using a project model to manage and document a project
- Project communication, oral and in writing

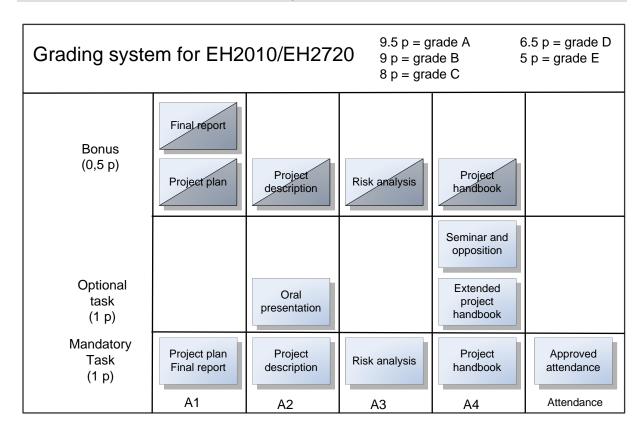
# Entrance qualifications

Prerequisites for 4th year studies.

#### Course examination

The course consists of four assignments, each of which gives a certain number of points (not to be confused with university credits). The total number of such points obtained determines the grade (see the grading system below). It is also required that you have at least one point for every mandatory course assignment. Furthermore, you can receive additional points by doing optional assignments or if your reports are very well done, as described below.

To reflect the fact that real life industrial projects require participation in meetings and careful planning of the time available, complete lecture attendance at 12 out of 16 lectures is required. This means that you will have to be *on time* and *stay for both lecture hours*. If you know that you will be unable to fulfill the attendance requirement then it is possible, *under special circumstances and after a special agreement with the course leaders*, to pass the course by doing a literature study instead. A typical literature study requires far more time than the equivalent lecture attendance.



# Grading system

As illustrated in the figure above, all mandatory and optional assignments are graded and rewarded with points. Some assignments are only graded by pass/fail, and are rewarded with a single point when passed. Other assignments are graded by pass with a bonus/pass/fail, and are rewarded with 1½ point for pass with a bonus and 1 point for pass. If an assignment only includes the mandatory tasks on the first submission it is not possible to supplement with the optional tasks on re-submission, i.e. the aim to complete the optional task must be evident at the first submission.

To get a bonus, the assignment must be *very well done* when submitted for *the first time*. This means that it should be clear that the authors have fully understood and mastered the important concepts and skills tested in that particular assignment. Both contents and form are important in this respect; i.e. no important contents or analysis should be missing, the structure and formatting should adhere to the relevant templates, and the text should be carefully proof-read.

Note that the ½ bonus point can be rewarded for an assignment that is very well done, even if a re-submission is required due to some minor details. Whenever an assignment requires a resubmission to pass, the comments from the teacher will make it clear whether the final grade after re-submission is likely to be a pass or a pass with a bonus. Assignments graded with a pass (without bonus) cannot be re-submitted to get a pass with a bonus.

When the course is complete, the points from all the assignments are added. As illustrated in the figure above, the total sum determines the final grade. Note that there is no rounding; i.e. 7.5 points are not the same as 8 points.

#### Course administration

• The department is located at Osquldas väg 12 (Q), floor 7. There is a doorbell for visitors.

- Most course administration is handled on the Bilda platform, reached via <u>www.bilda.kth.se</u> where you log in with your kth.se account. Bilda is used, for example, for:
  - Communicating with other course participants
  - Reading and accessing instructions and other material needed for the assignments
  - Submission and re-submission of assignments
  - Obtaining corrected assignments and comments, and lists of results
- Attendance will be registered on one or more lists that are passed around during the lectures. Approved attendance of a minimum of 12 lectures yields 0.8 ECTS credits, which means that the attendance requirement is a grading factor. Therefore, cheating with the attendance list is equivalent to cheating on an exam. You are required to inform course leaders if you have to leave a lecture. Show respect to our guest lecturers by being on time to the lectures!

#### Assignments

The teachers correct hundreds of assignments every week. In order to give you quick and relevant feedback on your work, the following rules apply:

- Assignments are done in groups of two, with the exception of some parts of assignment 3. These groups must be formed and reported on lists available at the lectures before Assignment 1 is submitted! Note that the members of a group must aspire to the same grade.
- The assignments are submitted in the pdf format via the Bilda system. Pdf files can be created with the Adobe Acrobat software, which is not free-of-charge. There are, however, several services on the Internet which can be used free-of-charge to create pdf files.
- Build a *single* pdf for each assignment. *Do not hand in any appendices separately!* Either build the pdf from a single document containing everything, or merge separate pdf files into a single one using Adobe Acrobat or free software services available on the internet.
- You must name your assignment by the following convention: GXX\_2011\_assignment\_Y.pdf, where "XX" is your group number (two digits, 01, 02, 03, etc), "Y" is a number between 1 and 3 indicating whether it is the first, second or third submission of the assignment, and "assignment" is one of the following: projectplan/ statusreport/ finalreport/ projectdescription/ riskanalysis/ projecthandbook / oppositionreport.

Example: G06\_2011\_projectplan\_2.pdf is group 6's project plan, which after correction had to be submitted a second time.

- A prerequisite for obtaining a higher grade than an E is that all assignments and resubmissions are submitted on time!
- Optional parts of an assignment will only be corrected twice, i.e. if you don't perform the necessary corrections after the first submission the chance to get the optional point will be lost.
- Assignments submitted after the deadline will be corrected after the vacation in January 2012.
- Any complaints about the corrections are to be submitted in writing to the course leaders.
- Any reports suggesting mass duplication will be unconditionally failed, and no opportunity to complete the course will be offered.

#### Course literature

Course literature consists of "Handbook for small projects"/"Handbok för mindre projekt" by Mikael Eriksson and Joakim Lilliesköld (Liber). It is sold at the Kårbokhandeln (KTH student

union bookstore) in both Swedish and English. Assignment instructions and supplementary material needed for the course is available via Bilda.

There are many other interesting (but fully optional) books about project management. A Swedish example is "Handbok i projektekonomi" by Agneta Östlund (Liber). A good English book is "Project Management Toolbox" by Dragan Z. Milosovic (John Wiley & Sons).

# References and plagiarism

The use of references is mandatory. When you use a fact from some source you should include a reference to this source.

**NOTE!** The better the sources, the more accurate the facts, therefore please note that reports that use credible sources (as for instance peer-reviewed scientific papers) will receive higher grades than those that only on rely on Wikipedia as a source.

Use references according to this or some similar standard but be consistent. For instance:

"Early assessment of system characteristics in software projects is one of the main concerns of the discipline of software architecture [1] [2] [3]."

#### List of references:

[1] Heineman, G., W. Councill (Eds), Component-based software engineering: Putting the pieces together, Addison-Wesley, 2001.

If the source is a web-page use the following standard. [name of page], [URL], [access date]

Wikipedia: Requirement, <a href="http://en.wikipedia.org/wiki/Requirements">http://en.wikipedia.org/wiki/Requirements</a>, 2009-10-29

Please note that when solving the project assignments co-operation between students is allowed and even encouraged. However, the project groups are responsible for the content of their own reports and any plagiarism will result in an immediate failing of the assignment in addition to a written report to KTH's central disciplinary committee.

This means that all groups should write their own reports. You are not allowed to copy text from other students, you are not allowed to copy text from the internet. If you want to use a quote from a source, it must be clearly indicated that it is a quote.

#### Lecture schedule

Week	Nr	Time and place			Swedish course EH2010 Lectures	English course EH2720 Lectures		
35	1	Tue	Aug 30	08-10	V1		Intro to project management (Johan König)	
	1	Tue	Aug 30	15-17	Q2	Intro to project management (Ulrik Franke)		
	2	Thu	Sept 1	13-15	V1		Project planning in theory (Johan König)	
	2	Thu	Sept 1	15-17	L1	Project planning in theory (Ulrik Franke)		
		Fri	Sept 2	13-15	V2		Back-up lecture	
36	3	Mon	Sept 5	15-17	M1	Project Budget (F	Pia Närman)	
	4	Tue	Sept 6	15-17	M2	Project models (B		
	5	Thu	Sept 8	10-12	V2		Procurement of complex systems (Joakim Lilliesköld)	
	6	Fri	Sept 9	10-12	FR4	PPS (Monica Pete	rsson, Tieto)	
	5	Fri	Sept 9	13-15	V1	Procurement of complex systems (Joakim Lilliesköld)		
37		Wed	Sept 14	08-10	K1		Back-up lecture	
		Fri	Sept 16	13-15	V1	Back-up lecture		
		Fri	Sept 16	15-17	D1	Back-up le	ecture	
38	7	Mon	Sept 19	15-17	B2	Group dynamics (Lena Schagerström)		
		Tue	Sept 20	13-15	D3	Back-up lecture		
	8	Wed	Sept 21	15-17	E1	Why do IT projects fail? (Liv I	Marcks von Würtemberg)	
	9	Thu	Sept 22	13-15	V1	Leadership (Ulrik Franke)		
	7	Fri	Sept 23	13-15	D1	-	Group dynamics (Ulrik Franke)	
39	9	Mon	Sept 26	15-17	D2		Leadership (Nicholas Honeth)	
	10	Wed	Sept 28	10-12	M1	Project Communication (Martin Kr Administra		
	11	Fri	Sept 30	13-15	Q1	Quality (Miche	l Koivisto)	
40	12	Mon	Oct 3	15-17	D2	Dos and don'ts for Project Manage	rs (Agneta Östlund, Ceterum)	
		Tue	Oct 4	15-17	E1	Back-up le	ecture	
	13	Wed	Oct 5	10-12	D1	Agile methods and project mana ala Tes	nagement (Tobias Hasselrot,	
	14	Fri	Oct 7	13-15	D1	Project management from the ins	side (Terence Acton, Ericsson)	
41	15	Wed	Oct 12	10-12	B1	Risk management (Chris	toffer Eile, Skandia)	
	16	Fri	Oct 14	13-15	D1	Summary and outlook	(Claes Sandels)	

# Optional oral presentation of Assignment 2:

Available times for an oral presentation are:

• Tuesday, September 27, 8.00 a.m. - 12.00 a.m., 1.00 p.m. - 5.00 p.m.

Note that it is important to be on time for the oral presentations! A booking list with available times for appointments will be at the lectures.

### Optional seminars in Assignment 4:

Available times for an oral presentation are:

• Monday, October 10, 8.00 a.m. - 12.00 a.m., 1.00 p.m. - 5.00 p.m.

Note that it is important to be on time for the oral presentations! A booking list with available times for appointments will be at the lectures.

#### **Guidance sessions**

No.	Day	Time		Contents
G1	Friday	15.00-17.00	2 Sept	A1
G2	Thursday	15.00-17.00	15 Sept	A3
G3	Thursday	15.00-17.00	22 Sept	A2
G4	Thursday	15.00-17.00	29 Sept	A4
G5	Thursday	15.00-17.00	6 Oct	A1

The venue for guidance sessions is the classroom on the 7th floor at Osquldas väg 12. At the guidance sessions you can ask specific questions about the assignments. Remember to be well-prepared – do not just ask for a general opinion on your drafts!

# Dates for submitting and correcting assignments

Submit through Bilda. Assignments should be received no later than at the indicated hour.

Date		Submissions due	Corrections complete	Re-submissions due	Corrections of resubmissions complete
Tue	6 Sept	A1 Project plan 9.00 a.m.	•		1
Fri	9 Sept		A1 Project plan 3.00 p.m.		
Fri	16 Sept	A1 Status report 1 5.00 p.m.			
Mon	19 Sept	<b>A3</b> Risk analysis 9.00 a.m.		A1 Project plan 9.00 a.m.	
Fri	23 Sept		A3 Risk analysis A1 Status report 1 3.00 p.m.		A1 Project plan 3.00 p.m.
Mon	26 Sept	<b>A2</b> Project description 9.00 a.m.			
Fri	30 Sept	A1 Status report 2 5.00 p.m.		A3 Risk analysis A1 Status report 1 5.00 p.m.	
Mon	3 Oct	<b>A4</b> Project Handbook 9.00 a.m.	<b>A2</b> Project description 3.00 p.m.		
Fri	7 Oct	A4 Opposition report 9.00 a.m.	A4 Project Handbook (N.b. Only handbooks not discussed in a seminar!) A1 Status report 2 3.00 p.m.		
Tue	11 Oct	A1 Final report 5.00 p.m.		<b>A2</b> Project description 5.00 p.m.	A3 Risk analysis A1 Status report 1 3.00 p.m.
Fri	14 Oct			A4 Project Handbook (N.b. Only those handbooks not discussed in a seminar!) A1 Status report 2 5.00 p.m.	
Mon	17 Oct		A1 Final report 3.00 p.m.		<b>A2</b> Project description 3.00 p.m.
Wed	19 Oct				<b>A4</b> Project Handbook 3.00 p.m.
Fri	21 Oct			A1 Final report 5.00 p.m.	
Wed	26 Oct				A1 Status report 2, A1 Final report, 3.00 p.m.