

# **Competitive Production Systems**

## **KPP202**

### **Course Summary/ Evaluation Fall 2014 /**

### **HT14**

Examiner Antti Salonen

Course coordinator Anders Hellström

Groups assistants

Version 2014-10-28

School of Innovation, Design and Engineering (IDT)

Division of Product Realisation

# Course evaluation KPP202 HT14, to the benefit for coming students on the course!

- Remember to fill in web evaluation to!
- Work in your groups
- Discuss each course page and comment a summary for the group as
  - **Keep** = Important to keep in course (since....)
  - **Change** = and note suggestions as; longer time, shorter time, other theory, replace with...
  - **Comment** = note other comment

## Objectives

The objective of the course is to give a general understanding of the impact of competitive production and logistics within industrial operations.

The course will give an understanding of modern production and logistics systems as well as discuss historic development and current challenges for Swedish manufacturing industry.



## **Lecture 1 – Thur 4 Sep 13:15-16:00 Anders Hellström and Antti Salonen**

- Call-over for registration: E:a/V-ås?, any Lean experience Y/N?, English only?, own project Company?
- Course Intro and Instructions, Course Home page  
<http://zoomin.idt.mdh.se/course/KPP202/index.asp>
- Groups and participation
- Project groups assistants Erik Flores and Daniel Gåsvaer
- Workshop, Lean and earlier course experiences
- Lean Methods
- Value Stream Mapping Example
- Handout of VSM group exercise INL2 part A 0,5 hp
- Handout of VSM group exercise INL2 part B 4,0 hp
- TEN1, supervised individual written examination at MDH

**Exercise INL2 part B, alternatives 1 (default) and 2 (only after negotiation and OK from Anders or Antti).**

**Exercise INL2B Alt 1:** A Value stream mapping and analysis of an industrial process, this is the default alternative, make good effort to establish contact with an industry and to find a case to study there!

**(Exercise INL2B Alt 2 :** Production of a full application instruction and implementation guide lines for one/ some chosen TPS methodology e.g. for value stream mapping, 5S+ 5Why or other improvement project as agreed with the teacher)

## Exercise INL2B, alternative 1, page 2 of 2

- A report/paper of maximum 10 pages describing;
  - The target product, product family, or service.
  - Drawing of current state value stream map, which are the current steps, delays, and information flows required to deliver the target product or service. On a production flow (raw materials to consumer) or a product design flow (concept to launch). Own measurements to be made of the input data.
  - Waste and disturbance analysis of current state.
  - Indication of
    - possible improvements and of
    - future state value stream map.
- Final oral presentation

## Group start up during Lesson 1:

**Individually** present to the group:

1. What do I want from this course
2. What gives me extra energy, how to get the best out of cooperating with me

**For the group** (Group leader direct the discussion):

1. Set meeting schedule for group meetings each week, suggest time before/after scheduled lectures for assistants meetings.
2. Appoint Group document administrator/ Secretary and make a members contacts list
3. Chose alternative 1 (or 2) for the Exercise INL2B.
- 4. E-mail with header "KPP202 Group/No/ INL2B chosen alternative" to Anders 2014-09-11. Include - contact list and suggested industry (/ suggested method).**

## Lecture 2 – Tue 9 Sep 09:15-12:00 Daniel Gåsvaer

- Value Stream Map, definitions, method and case study.



## **Lecture 3 – Thu 11 Sep 13:15-16:00 Anders Hellström**

- JIT-game. Just In Time production flow exercise based on a push respectively a pull approach to show the difference in the resulting flow.  
Understanding of a stable process.
- 15 course members acting as the production staff
- All others participating in observation and analysis
- Sweeping of the shop floor..., all together!
- Group data to Anders in e-mail during the day

PuMHa/Margareta Hammarström, Anders Hellström



## **Lecture 4 – Tue 16 Sep 09:15-12:00 Antti Salonen**

- Maintenance , introduction, impact on competitiveness

## Lecture 5 – Thur 18 Sep 13:15-16:00 Anders Hellström

- Presentations and hand in from groups, at the latest 13.15, INL2A
- Intro VSM project, groups reports their chosen company
- Tips for VSM project
- Basic theory Ch 8 - Ch 14 e.g. pull, level out, standardize
- Updated study questions

## Lecture 6 – Tue 23 Sep 09:15-12:00 Anders Hellström

- The Toyota Way theory, Anders
- VSM discussion, questions from groups
- VSM Industrial Case Study
- Study questions, discussion



## **Lecture 7 – Thur 25 Sep 13:15-16:00 Antti Salonen**

- Dependability calculations

**Lecture 8 – Tue 30 Sep 08:15-12:30 , including transportation, entrance at VCE industry gate 08.45 sharp, late comers cannot be picked up!**

See the home page for transport details! Time and other details may be changed, check the homepage the day before!

Prepare one question in advance per group to the company!

- Factory visit including factory tour at Volvo Eskilstuna
- Company information
- Volvo Production System, VPS
- Summing up and questions

Marcus Bengtsson, Anders Hellström

## **Lecture 9 – Thur 2 Oct 13:15-16:00 Christer Osterman**

- SPS – Scania Production System
- Practical examples from Production engineering

Christer Osterman Ph D student



## **Lecture 10 – Tue 7 Oct 09:15-12:00 Anders Hellström**

Lean concept at ABB

*Based on theory and real cases from ABB by Fernando Duran.*

- VSM - As a scenario with focus on Value Added and Non Value Added time/ Effort
- Lean - Focus on "Waste"
- TOC - Theory of Constraint (Flaskhalsstyrning)

Opponents instruction INL2B to homepage, Anders .



**Fernando Duran**

Global Deployment Manager, Business Unit Measurement Products, ABB AB



## Lecture 11 – Thur 09 Oct 13:15-16:00 Sasha Shabazi

Hand in of project work INL2 part B before 13.15, two sets in paper, one for opponents. Anders.

Hand over to each opponent group. Anders.

- Overview of Research within Product Realisation
- Green perspectives on Lean, part I

Sasha Shabazi, PhD student



## **Lecture 12 – Tue 14 Oct 09:15-12:00 Antti Salonen**

- Dependable Production Equipment

## Lecture 13+14 Anders Hellström

- Project presentations, INL2 part B
- 15 minutes presentation per group, all members participates prepared to show own full understanding of the theory, group work process and results
- 5 minutes of questions and feedback to each group from opponents

## Lecture 15 – Thur 23 Oct 13:15-16:00 Martin Kurdve

- Green perspectives on Lean, part II, resent research results

## **Lecture 16 – Tue 28 Oct 09:15-12:00 Anders Hellström**

- Further courses in the area of Production System Development
- VSM summing up
- Course review, seminar discussion on course theory



**Examination opportunities, see web for updates!**  
**Remember to apply in Students Portal for your participation well in advance!**

- 1 **TEN1** Tue 4 Nov 2014 at 08:10-12:30  
Eskilstuna and Västerås
- 2 **TEN1** Thur 8 Jan 2015 14.10 – 18.30  
Eskilstuna and Västerås
- 3 **TEN1** 2015- August, if any student is still not approved
- 4 **INL2 part A and part B** only possible to examine within the scheduled time of the course and only at the scheduled time for presentation, any remarks to be corrected/reexamined before last lecture

## **General feedback to groups from Anders 141028, KPP202 HT14 INL2B**

- All reports, presentations and opponent work are hereby confirmed as ok for INL1, INL2A and INL2B for all groups on group level. Some individuals remain for additional examination due to absence from presentations or by other reasons. They will be informed by e-mail from Anders how to proceed.
- Final remarks on INL2B will be e-mailed to each group this week.

**If not clearly stated from me to the group before 141030 no further hand-in to me of corrections is needed, but ensure that all members in the groups understand the given feedback and understand how to correct since it will benefit to the understanding of the course theory and thus help to pass TEN1.**

## **General feedback to groups from Anders 141028, KPP202 HT14 INL2B**

- Some groups have had difficulties to get a company to analyse. Overall this has been finally cooperated with in an acceptable way.
- The overall effect of the project work is understood to have been beneficial to your learning of course theory and training in its implementation. Also companies have been described to appreciate your work and even opened up for further contacts such as coming thesis work, well done!
- Further feedback to each presentation is already given orally to the groups at the presentations.



## General feedback to groups from Anders 141028, KPP202 HT14 INL2B

- **Some further feedback to most groups:**
- Make very clear in the report what specific part you have written the text through own understanding and in own words, should be the major parts. **When copying text without reference – this is NOT allowed, in coming courses this will normally be checked and seen as cheating.**
- Use language and grammar tools for all text; make a final thorough reading through.
- Check readability for printouts and PP slides; put report pages readable from straight or right (not left) view.
- Keep given limitations such as number of pages and times for hand in.