



## International Production Engineering

### International Production Engineering/Internationell produktionsteknik

7.5 credits

7.5 högskolepoäng

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**Ladok Code:** 41T06B

**Version:** 1.0

**Established by:** Board of the department 2010-10-07

**Valid from:** Autumn 2010

**Education Cycle:** First cycle

**Main Field of Study (Progressive Specialisation):** Industrial Economics (GIF)

**Disciplinary Domain:** Technology

**Prerequisites:** Meets the requirements for acceptance as a Graduate Engineer.

**Subject Area:** Industrial Engineering and Management

**Grading Scale:** ECTS-credits

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## Content

- The link between product development and design alterations and production engineering
- Production in cooperation with other elements within a company
- Enhancement projects
- Production layout
- Production systems
- Preparation, method development and work surveying
- Lean Production
- Value flow analysis
- Relevant lean tools and techniques such as
- OEE (Overall Equipment Effectiveness)
- Single-Minute Exchange of Die (SMED)
- 5S
- Standardised working methods
- The basics for dimensioning a kanban system
- PDCA
- Enhancement work according to Kaizen
- Timing
- TOC (Theory of Constraints)
- Automation
- Dupont schedule, and enhancement work from a corporate economics standpoint
- Various strategies and methods for developing the production process

## Learning Outcomes

After having completed this course, students will:

- be able to participate in production engineering development work at a basic level within a manufacturing company
- describe the most important concepts and basic working methods in production engineering
- explain how a production engineering process can be streamlined

## **Forms of Teaching**

The teaching will comprise lectures, laboratory experiments, seminars, submission information and exercises.

## **Forms of Examination**

The course will be examined through the following examination elements:

### *Seminars with written submission*

Learning outcomes:

Credits: 3

Gradingscale: Fail (U) or Pass (G)

### *Individual Home examination*

Learning outcomes:

Credits: 4

Gradingscale: ECTS-credits

### *Laboratory experiments*

Learning outcomes:

Credits: 0.5

Gradingscale: Fail (U) or Pass (G)

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

## **Literature and Other Teaching Materials**

Bellgran, M., och Säfstén, K., (2010) : Production Development, Design and Operation of Production Systems, Springer

Articles and other information will be announced at the start of the course.

## **Student Influence and Evaluation**

The head of department and teacher responsible for the course are responsible for ensuring that students are invited systematically and regularly to put forward their views on the course. The results of the evaluations will be reported back to the students and will form the basis for the future structure of the course.

## **Miscellaneous**