



Syllabus for



P01 – Production Innovation

Credits	7.5 credits
Examiner	Anna Öhrwall Rönnbäck, Luleå University of Technology
Contact	Kerstin Johansen kerstin.johansen@liu.se +46 (0) 13 - 28 24 47
Target group	<p>The course targets professionals who want to deepen knowledge and awareness of the value of innovation in production and how to manage innovation (eg at their current workplace), and PhD candidates seeking to increase awareness regarding production innovation aspects within each of their own research fields.</p> <p>The course will be given in English, but some of the content will be in Swedish (such parts are not compulsory for non-Swedish speaking participants). If all participants are Swedish-speaking the course will be in Swedish.</p>
Prerequisites	MSc in Engineering or similar.

Aim

This course gives the participants in-depth knowledge about innovation terminology and different types of innovation. Especially, the course deals with production innovation with both theoretical discussions (supported from contemporary academic publications) and industrial examples (including site visits).

The aim is that every participant at the end of the course will produce an individually written report with academic and practical relevance that contributes to the area of production innovation.

Teachers/tutors

Anna Öhrwall Rönnbäck, chaired professor product innovation, Luleå University of Technology and guest professor at Industrial Management, Linköping University. Research area innovation, product development and business development. Project manager of Kunskapsförmedlingen and Kunskapsturnén.

Kerstin Johansen, assistant professor LiU, Senior Lecturer Design & Product Development - Focus: Manufacturing at Linköping University

Peter Törlind, assistant professor LTU, Researcher in Team Based Innovation, Head of division, Innovation and Design and senior lecturer at Functional Product Development

Johan Stahre, professor Chalmers, Chair Professor, Head of Division Production Systems, Product and Production development. Codirector of Chalmers' Area of Advance Production

Ola Isaksson, adjunct professor Chalmers, and senior specialist in product development GKN

Magnus Holmén, professor Innovation Sciences and Industrial Management, School of Business and Engineering Halmstad University

Bengt-Göran Rosén, Professor of Mechanical Engineering, School of Business and Engineering, Halmstad University, responsible for the Graduate School Johan Frishammar, professor Entrepreneurship and Innovation, LTU

Helena Lidelöw, associate professor LTU, and Lindbäcks Bygg. Research within systems building and industrialisation of construction. Topics are platforms in construction and quality/Lean applications in construction. Teaching within CAD, timber engineering, building technology, and industrialised construction.

Also contributing: Elisabeth Sagström (MSc), Swerea IVF, professor Monica Bellgran, Senior Vice President Research & Development LKAB, Tord Gustavsson (PhD), Managing Director Blå Tråden, Stefan Lindbäck and/or Erik Lindbäck,

Lindbäcks Bygg, and many other company representatives.

Learning outcomes

Upon successful completion of the course, participants should be able to:

- Define innovation in manufacturing industry
- Describe production innovation in different industrial contexts
- Conduct case studies of production innovation
 - Conduct literature review
 - Construct an analysis model
 - Collect case data
 - Analyse case data
 - Present conclusions from the case study
- Evaluate other course participants' work
- Communicate about production innovation in both academic and
- industrial contexts (present own work orally and in writing, and give review of other's work)

Contents

Lectures and company site visits will be carried out in combination with each participant's own written reports on observations and reflections.

Organisation

The course is organized around five meetings at different locations in Sweden, each meeting lasting two-three days.

Literature

Tidd J. and Bessant J. (2009), *Managing Innovation: Integrating Technological, Market and Organizational Change*, John Wiley & Sons Ltd: West Sussex

Anderson C. (2012), *Makers: The New Industrial Revolution*, New York: Crown Business.

Papers (list to be announced)

Youtube clips etc

Examination

Each participant's work will be examined based on written tasks delivered within the given time schedule, and an oral presentation of the own project at a final seminar. Active participation at the seminars.

Max 1 seminar absence is accepted, except final seminar when the own project will be presented. In case of absence: extra written assignments.

With support from:



STRATEGIC
INNOVATION
PROGRAMMES