

SYLLABUS

Principles and methods for production management eller Production Management - advanced level 7.5 credits T7022T

Avancerad produktionsledning

Course syllabus admitted: Autumn 2023 Sp 1 - Present

**DECISION DATE
2021-02-17**

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Avancerad produktionsledning

Second cycle, T7022T

Education level	Grade scale	Subject	Subject group (SCB)
Second cycle	G U 3 4 5	Produktionsteknik	Mechanical Engineering

Entry requirements

Courses / knowledge in the manufacturing equivalent T0019T Manufacturing.

Selection

The selection is based on 30-285 credits

Course Aim

After completion of the course the student shall be able to:

1. Knowledge and understanding

- explain methods and strategies for production system management,
- explain the historical development and growth of lean,
- explain the basic concepts and building blocks of lean and how they are related,
- describe how different companies and organisations can apply lean,
- describe valuations, methods and tools within lean,
- describe work laws and roles related to employer employers relations,
- explain sustainability (social, environmental and economic) in relation to production system design,

2. Skill and ability

- apply methods for continues improvements,
- apply methods and tools for lean based production system,
- apply insights in sustainability in the design of production systems,
- plan the design and layout of production systems,
- present, written and oral, results from production system development,

3. Valuation and attitude

- evaluate the importance of sustainable (social, environmental and economic) in relation to production system design,
- reflect and valuate own contributes in laboratory and project work.

Contents

The manufacturing systems layout and functions. Historical view of the development of different manufacturing philosophies with specific focus on the lean concept. The Toyota manufacturing systems and different lean interpretation in western countries. Examples of Swedish and foreign implementation of lean. The principles and the most important methods within lean. Principles, methods and tools for development of manufacturing layouts.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Lectures, seminars, group exercises, laboratory exercises and group project. The seminars, lab.\s, exercises and project are compulsory.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Written exam, successful completion of seminars, group exercises, laboratory work and case studies. Specific requirements in defined in the instruction for the different tasks.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Course offered by

Department of Engineering Sciences and Mathematics

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Written Exam	G U 3 4 5	3	Mandatory	A12	
0002	Seminar/Assignment Report	U G#	1.5	Mandatory	A12	
0003	Case Study	G U 3 4 5	3	Mandatory	A12	

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Head Faculty Programme Director Niklas Lehto 2021-02-17

Document Education

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Admitted in	Date	Page
Autumn 2023, Sp 1	2021-02-17	4 (4)

Syllabus established

by Dept. TVM Mats Näsström 2012-03-14