

SYLLABUS

Industrial Production Environment 7.5 credits A0011A

Industriell produktionsmiljö

Course syllabus admitted: Autumn 2022 Sp 1 - Spring 2023 Sp 4

**DECISION DATE
2022-02-11**

Industrial Production Environment 7.5 credits A0011A

Industriell produktionsmiljö

First cycle, A0011A

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Industriell produktionsmiljö	Work Science and Ergonomics

Main field of study

Industrial Design Engineering

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and completed the courses Ergonomics 1 (A0015A) 7,5 credits and Design: process and method (D0030A) 15 credits, with at least the grade Pass, or equivalent knowledge.

Selection

The selection is based on 1-165 credits.

Examiner

Magnus Stenberg

Course Aim

After finishing the course the student is expected to have

- good knowledge of the historical development in production and a sound theoretical base for design of manufacturing systems
- achieved an understanding of the industrial production environment and the conditions for production organisations
- a sound base for further knowledge building in the subject of production systems environment
- achieved ability to perform limited investigations and evaluations of production systems

Contents

Production in the rear-view mirror: Handicraft, mass production, lean.

The manufacturing system: Classification, terminology, typical examples.

The production system environment: Volume and flexibility, standard products and customisation.

Manufacturing system design: From concept to operation; Performance: Productivity and efficiency.

Realization

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

Theories and applied exercises are covered during lectures. The students are expected to work individually and in groups with assignments and project work.

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. Grades are based on an individually written examination, as well as written and oral presentations of assignments and projects. The written examination is evaluated according to alternative A in "Regler för tentamen". Differentiated grades are given.

Remarks

Students must register for the courses themselves, or contact ETKS educational administration eduetks@ltu.se, not later than three days after the quarter commences. Failure to do so can result in the place being lost. This rule also applies to students with a guaranteed place.

Literature. Valid from Spring 2018 Sp 3

Bellgran, Monika& Säfsten, Kristina, Produktionsutveckling Utveckling och drift av produktionssystem, Studentlitteratur, 2005

Ref.litt.

Peterson, P m fl., LEAN - Gör avvikelser till framgång, Part Development, 2009

Bicheno, J., Ny verktyglåda för Lean: För snabbt och flexibelt flöde, Revere AB, 2007

Information on additional course material for individual and group assignments is given at course start.

Course offered by

Department of Social Sciences, Technology and Arts

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0001	Written exam	G U 3 4 5	4.5	Mandatory	A07	
0005	Laboratory work	U G#	1	Mandatory	A11	
0007	Oral and written presentation of projekt work	U G#	2	Mandatory	A14	

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 Director of Undergraduate Studies Daniel Örtqvist, Department of Social Sciences, Technology and Arts 2022-02-11

Syllabus established

The syllabus has been confirmed by the Department of Human Work Sciences 2007-02-28