COURSE DETAIL

SMART MANUFACTURING

Country
Sweden

Host Institution
Lund University

Program(s)
Lund University

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Mechanical Engineering

UCEAP Course Number
153

UCEAP Course Suffix

UCEAP Official Title
SMART MANUFACTURING

UCEAP Transcript Title
SMART MANUFACTURING

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

The course is an introduction to manufacturing processes, ranging from machining operations to production quality control and production cost analysis, according to requirements of the Smart Manufacturing. The course provides an overview of systems and methods to monitor the machining operations and control the production quality by in- and post-process measurements. Part of the course is focused on introduction to the development of data acquisition and monitoring systems based on Artificial Intelligence (AI) and Machine Learning (ML) techniques and their implementation in manufacturing processes in academy and industry environments. The course is given as lectures with computer exercises and laboratory sessions and a task to train the student to elaborate on the material presented in the lectures. A project gives the student an opportunity to independently solve a problem for automatized process monitoring and production control. Assumed prior knowledge: MMT012/MMTF20 Production and Manufacturing Methods or MMTA05 Production Systems or MMTF01 Production and FKM015/FKMA01 Materials Engineering, Basic Course.

Language(s) of Instruction
English

Host Institution Course Number
MMTN50

Host Institution Course Title
SMART MANUFACTURING

Host Institution Course Details
https://kurser.lth.se/lot/course-syllabus-en/24_25/MMTN50

Host Institution Campus
Lund

Host Institution Faculty

Engineering

Host Institution Degree

Host Institution Department

Course Last Reviewed
2024-2025

[Print](#)