

PPU231 - Course plan and administration

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GENERAL INFORMATION



- If you have any concerns or suggestions, do not hesitate to contact me! You are welcome to give feedback during the whole course. **Preferably via email.**
- This is an online course (Canvas + Zoom)

MAIN ZOOM LINK: <https://chalmers.zoom.us/j/67452330362>
Password: PPU231

NOTE - DIFFERENT LINKS FOR PRODUCTION/PRODUCT SPECIFIC LECTURES!

STUDENT REPRESENTATIVES



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Tarek Al Shafie
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Gustaf Malmsjö
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LEARNING OBJECTIVES

After the course, the students should be able to:

LO1: Describe and **apply risk and safety concepts** and use engineering tools to analyze, evaluate, and reduce risks;

LO2: Explain, implement and distinguish various prevailing **maintenance concepts**;

LO3: Recognize and evaluate **future maintenance concepts**;

LO4: Interpret, describe and evaluate **Production and Product Service Systems**;

LO5: Demonstrate how existing **production systems or products can be designed, developed and provided as Production or Product Service Systems**;

LO6: Differentiate, select and develop actions to improve **production systems or products during the whole life-cycle**.

COURSE ORGANIZATION



CORE

Lectures: Provides theoretical foundation and support for project work;

Project: Applying skills learned throughout the course to improve productions systems or products during the whole life-cycle;

Workshops: Reflecting and discussing the implications of production and product solutions;

Presentation: Be able to present and defend project results to industrial stakeholders.

EXAMINATION



- 70 points for the project + 30 points for the test

But there are some mandatory activities (maintenance assignment, participation on the workshops/presentation, and other activities during the project)

- Knowledge test – via Canvas (Monday, 2021.02.08, 13.15-15.00)

LITERATURE + LECTURES



Literature / lectures are available on Canvas + reading directions (Syllabus)

[Syllabus](#)

Modules

[Grades](#)

[People](#)

[Zoom](#)

[Assignments](#)

[Discussions](#)

[Files](#)


▼ Lectures

► Project

► Maintenance assignment

▼ Reading material

 Bokrantz et al. (2017) - Maintenance in digitalised manufacturing - Delphi-based scenarios for 2030.pdf

 Guide to safety analysis for accident prevention.pdf

 Isaksson et al (2009) Development of product service systems challenges and opportunities for the manufacturing firm.pdf

 Mobley (2008) - Impact of Maintenance.pdf

 Pintelon & Perodi-Herz (2008) - Maintenance An Evolutionary Perspective.pdf

PROJECT INFORMATION



GROUPS

1. You are free to choose your group (4-5 people) – remember that there are two different types of groups: production / product.
2. Try to interact with other students to form the groups
3. If necessary, students might be assigned to a group with less than 5 people

PROJECT INFORMATION



1. There are two project PMs, that will be made available.
2. There will be specific lectures to the different groups (production x product) during the project weeks. Make sure to join the right session.
3. There will be some time to project work – you are free to chose how to digitally interact within the group
4. Supervision meetings for the project will be booked via Google Forms

SCHEDULE





W	Time	Zoom Link	Activity	Resp.
3	Introduction week			
	Monday, 2021.01.18, 13.15-15.00	https://chalmers.zoom.us/j/67452330362 ☒ Password: PPU231	Introduction to servitization and digitalization Introduction to E-bike Inc.	TY, AI, OI, MP
	Monday, 2021.01.18, 15.15-16.00	https://chalmers.zoom.us/j/67452330362 ☒ Password: PPU231	Course plan and administration	AI
	Thursday, 2021.01.21, 08.00-09.45	https://chalmers.zoom.us/j/67452330362 ☒ Password: PPU231	Servitization in industry	OI
	Thursday, 2021.01.21, 10-11.45	https://chalmers.zoom.us/j/67452330362 ☒ Password: PPU231	Production service systems	TY
	Friday, 2021.01.22, 15.15-17.00	https://chalmers.zoom.us/j/67452330362 ☒ Password: PPU231	Servitization theory and service design	MP



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4	Risk Management and Maintenance week			
	Monday, 2021.01.25, 13.15-15.00	https://chalmers.zoom.us/j/67452330362 ✉ Password: PPU231	Risk management and safety	TY
	Monday, 2021.01.25, 15.15-17.00	---	Self-study time (theory)	---
	Thursday, 2021.01.28, 08.00-10.45	https://chalmers.zoom.us/j/67452330362 ✉ Password: PPU231	Maintenance concepts	TY
	Thursday, 2021.01.28, 11.00-11.45	Available on Canvas from 2121.01.28. Due date: 2121.02.05.	Maintenance assignment	---

Guest lectures, PSS and Project work week #1

Monday, 2021.02.01, 13.15-15.00	https://chalmers.zoom.us/j/67452330362  Password: PPU231	Sustainable circle – smart maintenance	Anders Källström
		Guest from Servitization	Guest
Monday, 2021.02.01, 15.15-17.00	https://chalmers.zoom.us/j/67452330362  Password: PPU231	Project introduction	TY, AI, OI, MP
Thursday, 2021.02.04, 08.00-09.45	https://chalmers.zoom.us/j/69454510202  Password: PPU231	Maintenance policy using RCM (Production groups only!)	TY
	https://chalmers.zoom.us/j/61637552528  Password: PPU231	Value and stakeholder assessment (Product groups only!)	OI
Thursday, 2021.02.04, 10-11.45	https://chalmers.zoom.us/j/67452330362  Password: PPU231	Integrated product and production system development	MP
Friday, 2021.02.05, 15.15-17.00	(***)	Project work – scheduled supervision	TY, AI, OI, MP






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6	Dugga and project work week #2			
	Monday, 2021.02.08, 13.15-15.00	Knowledge test	Knowledge test	TY
	Monday, 2021.02.08, 15.15-17.00	(***)	Project work – scheduled supervision	TY, AI, OI, MP
	Thursday, 2021.02.11, 08.00-09.45	https://chalmers.zoom.us/j/67452330362 ✉ Password: PPU231	Joint workshop 1	TY, AI, OI, MP
	Thursday, 2021.02.11, 10.00-11.45	---	Report time for joint workshop 1	---
	Friday, 2021.02.12, 15.15-17.00	(***)	Project work – scheduled supervision	TY, AI, OI, MP

Project work week #3			
Monday, 2021.02.15, 13.15-15.00	https://chalmers.zoom.us/j/67452330362 Password: PPU231	Service design – Guest lecture	Guest
Monday, 2021.02.15, 15.15-17.00	https://chalmers.zoom.us/j/69454510202 Password: PPU231	Priority-based maintenance (Production groups only!)	AI
	https://chalmers.zoom.us/j/61637552528 Password: PPU231	Life cycle cost analysis (Product groups only!)	MP
Thursday, 2021.02.18, 08.00-09.45	---	Project work	---
Thursday, 2021.02.18, 10.00-11.45	(***)	Project work (scheduled supervision)	TY, AI, OI, MP
Friday, 2021.02.19, 15.15-17.00	---	Project work	---

Project work week #4

Monday, 2021.02.22, 13.15-15.00	https://chalmers.zoom.us/j/69454510202  Password: PPU231	Production service improvements (Production groups only!)	AI
	https://chalmers.zoom.us/j/61637552528  Password: PPU231	PSS cost benefit (Product groups only!)	MP
Monday, 2021.02.22, 15.15-17.00	---	Project work	---
Thursday, 2021.02.25, 08.00-09.45	https://chalmers.zoom.us/j/67452330362  Password: PPU231	Joint workshop 2	TY, AI, OI, MP
Thursday, 2021.02.25, 10.00-11.45	---	Project work	---
Friday, 2021.02.26, 15.15-17.00	---	Project work	---

9	Project work week #5			
	Monday, 2021.03.01, 13.15-15.00	(***)	Project work (scheduled supervision)	TY, AI, OI, MP
	Monday, 2021.03.01, 15.15-17.00	---	Project work	---
	Thursday, 2021.03.04, 08.00-09.45	(***)	Project work (scheduled supervision)	TY, AI, OI, MP
	Thursday, 2021.03.04, 10.00-11.45	---	Project work	---
	Friday, 2021.03.05, 15.15-17.00	---	Project work	---

10	Project finalization			
	Monday, 2021.03.08, 13.15-15.00	---	Project work	---
	Monday, 2021.03.08, 15.15-17.00	---	Project work	---
	Thursday, 2021.03.11, 08-11.45	https://chalmers.zoom.us/j/67452330362  Password: PPU231	Project seminar	TY, AI, OI, MP



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QUESTIONS?