

Production and Logistics Planning

PPU426



Antti Salonen

antti.salonen@mdh.se



Learning objectives

Student shall show ability to:

- Describe production and logistics systems through a broad range of examples.
- Utilize production and logistics planning techniques to solve production and logistics problems.
- Prepare a production plan through the use of aggregate planning.
- Analyze and evaluate the solutions from production and logistics problems.
- Optimize inventory and production sequencing.
- Optimize inbound and outbound (distribution) costs through the use of transportation techniques.



Literature

Edition 8 or newer:

**Operations Management: Processes and Supply Chains:
Global Edition, 11/e by Lee J. Krajewski, Larry P. Ritzman and
Manoj K. Malhotra**



Syllabus (preliminary)

Date	Part	Lecturer
13-Nov	Course presentation Introduction to logistics	Antti
16-Nov	Forecasting techniques, linear regression, Time series, Exponential smoothing	Antti
20-Nov	Inventory management pt1	Yuji
23-Nov	Capacity planning, Capacity measurement, Methods for capacity planning, Waiting lines	Viktorija
27-Nov	Inventory management pt2	Yuji
30-Nov	Location, Locating a single facility, Locating a facility within a network Transportation method	Viktorija
04-Dec	Material requirement planning, Master production schedule, JIT	Yuji
07-Dec	Purchasing and Supplier Management	Yuji
14-Dec	Scheduling, Job shop dispatching, Assignment problem	Yuji
18-Dec	Layout, Process layout, Product layout, Line balancing	San
21-Dec	Aggregate planning, Level and chase strategies	San



Examination

Project (Pro1): 1.5 credits

Literature study

Written exam (Ten1): 6 credits



Project (Pro1): 1.5 credits

A scientific literature study:

- Train you in searching for scientific literature
- Train you in reading and assessing scientific literature
- Train you in analyzing scientific literature
- Train you in writing scientific reports



The written exam, 6 credits

- 5 hours writing time (most students spend at least 4 hours)
- 12-15 questions, covering most of the course
- Both calculations and text questions
- Total 100 points
- 50% required to pass
- Formulas attached in the exam
- 5 old exams are available on the course homepage



Attendance

It is highly recommended that you attend as many lectures as possible!

Year	Attendance	Pass
2013	33%	49%
2014	67%	67%
2015	35%	47%



Communication

Course web page: <http://zoomin.idt.mdh.se/course/PPU426/index.asp>

Contact: e-mail, san.aziz@mdh.se