
JAPANESE PRODUCTION MANAGEMENT SYSTEMS

2 credits (Spring)

日本の生産管理システム 2単位(春学期)

KHOJASTEH, YACOB
ホジャステ, ヤコブ

Course Description/Objectives/Teaching Method/Intended Learning Outcome:

This course provides an introduction to production management and presents tools and techniques mostly used by Japanese companies to manage and control their production systems. It provides the students with the necessary concepts, tools and methods to understand the production management systems and the logic behind the various planning, scheduling, control and decision techniques used by Japanese companies today. Essential Japanese production management concepts such as Toyota's production systems, just-in-time, Kanban and Kaizen will be covered. It also covers traditional and modern Japanese production systems and those control systems being practiced in Toyota.

Course Plan:

- 1 Introduction, Toyota production system
- 2 Toyota's Just-in-Time (JIT) systems
- 3 Kaizen and continuous improvement techniques
- 4 Productivity, concepts and applications
- 5 Productivity improvement in production systems
- 6 Inventory management
- 7 Aggregate planning and scheduling I
- 8 Aggregate planning and scheduling II
- 9 Material requirements planning (MRP)
- 10 Enterprise resource planning (ERP)
- 11 Planning and scheduling in production systems
- 12 Short-term scheduling in production systems
- 13 Problem solving and course review

Other Review

Method of Evaluation:

Attendance	10%
Assignments	60%
Final Exam	30%

Textbooks:

Lecture handouts will be provided as the course proceeds.

Reference Books:

- Monden, Y. (2012) *Toyota production system: an integrated approach to just-in-time*, 4rd edition, Engineering & Management Press
- Khojasteh, Y. (2016) *Production Control Systems, A Guide to Enhance Performance of Pull Systems*, Springer
- Khojasteh, Y. (2018) *Production Management: Advanced Models, Tools, and Applications for Pull Systems*, CRC Press