

Keio University Syllabus and Timetable

JAPANESE PRODUCTION MANAGEMENT SYSTEMS

Lecturer(s)	KHOJASTEH, YACOB
Credit(s)	2
Academic Year/Semester	2025 Spring (2nd Half)
Day/Period	Thu.2,3
Campus	Mita
Classroom	437
Class Format	Face-to-face classes (conducted mainly in-person)
Registration Number	78091
Faculty/Graduate School	INTERNATIONAL CENTER
Year Level	2, 3, 4
Grade Type	S, A, B, C, D
K-Number	CIN-CO-00243-212-18

▼ Detail

Course Contents/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 production management systems and the logic behind the various planning, scheduling, control, and decision techniques. 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 at Toyota.

Active Learning Methods ⓘ [Description](#)

Not applicable

Preparatory Study

Homework problems will be assigned after finishing each topic. The purpose of the assignments is to practice the concepts that are covered in lectures. Students are expected to work on those assignments as a study tool for the exam.

Course Plan

Lesson 1

Introduction, Toyota production system

Lesson 2

Toyota’s Just-in-Time (JIT) systems

Lesson 3

Kaizen and continuous improvement techniques

Lesson 4

Productivity improvement in production systems

Lesson 5

Inventory management I

Lesson 6

Inventory management II

Lesson 7

Aggregate planning and scheduling I

Lesson 8

Aggregate planning and scheduling II

Lesson 9

Material requirements planning (MRP)

Lesson 10

Enterprise resource planning (ERP)

Lesson 11

Planning and scheduling in production systems

Lesson 12

Short-term scheduling in production systems

Lesson 13

Course wrap-up and review

Lesson 14

Exam

Other

Office hours

Method of Evaluation

Attendance: (15%)

Exam: (85%)

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