Kadir Has University
Faculty of Engineering and Natural Sciences
Department of Industrial Engineering

IE 321 Factory Design and Plant Layout
(Fall 2020) (3+0+0)

Description:
Introduction to manufacturing facilities design and materials handling, sources of information for manufacturing facilities design, time study, process design, flow analysis techniques, activity-relationship analysis, ergonomics and workstation design space requirements, auxiliary services requirement space, employee services-space requirements, material handling, material handling equipment, office layout techniques and space requirements, area allocation, facilities design-the layout.

Textbook:
Manufacturing Facilities Design and Material Handling by F. E. Meyers, M.P. Stephens, 3rd Ed., 2005, ISBN: 0-13-112535-4

Course Outline:
The instructor reserves the right to modify this preliminary schedule at his discretion.

WEEK	DATES	TOPIC	READINGS
1	Oct 5-8	Course Syllabus Int. to Mfg. Facilities Design and Material Handling	Chapter 1
2	Oct 12-15	Sources of Information for Manufacturing Facilities Design	Chapter 2
3	Oct 19-22	Time Study	Chapter 3
4	Oct 26-29	Process Design	Chapter 4
5	Nov 2-5	Flow Analysis Techniques	Chapter 5
6	Nov 9 Nov 12	Activity-Relationship Analysis Midterm 1	Chapter 6
7	Nov 16-19	Ergonomics and Workstation Design Space Requirments	Chapter 7
8	Nov 23-26	Auxiliary Services Requirement	Chapter 8
9	Nov 30-Dec 3	Space Requirements Employee Services- Space Requirements	Chapter 9
10	Dec 7 Dec 10	Material Handling Systems Midterm 2	Chapter 10
11	Dec 14-17	Material Handling Equipment	Chapter 11
12	Dec 21-24	Office Layout Techniques and Space Requirements	Chapter 12

13	Dec 28-31	Area Location	Chapter 13
14	Jan 4-7	Facilities Design - The Layout	Chapter 14
	TBD	Final Exam	All the Chapters

* Chapter 15 is of advance applications of facility layout such as simulation (to be summarized).
* Chapter 16 is only reading chapter. No class will be held for it.

Class Schedule:
The class will meet on Mondays and Thursdays (13:30-15:00) online through Khas Learn

Grade Evaluation:
The weights for each type of evaluation are given as:

- Midterm (2x20%) (40%)
- Attendance (min. %50) (10%)
- Final Exam (50%).

- The final exam will be comprehensive of all the material covered. Failure to attend the exam will lead to a zero for that exam. The only exception will be for students with a medical reason signed by a physician from an acceptable institution (please see the regulations of Kadir Has University). Students must take the final exam to receive a grade in this course.
- Khas Learn will be used to communicate with students throughout the course. All the assignments and documents will be posted on the Khas Learn system and/or given in class. PLEASE REGULARLY CHECK OUT YOUR E-MAIL ACCOUNT

Instructor: Dr. Zeki AYAĞ, Professor of Industrial Engineering; Room: D203 (D Block, 1st floor), ext.1440, e-mail: zekia@khas.edu.tr

Office Hours: No office hours. Anytime through e-mail and online meeting by appointment.

Attendance Policy:

- Students are expected to be in online class and on-time. Students are responsible from all the materials covered in class. Students not being able to attend the online classes should provide prior notice to the instructor and subsequent official documentation.
- Each student is responsible for all announcements made in class, sent to his/her e-mail account and posted on Khas Learn, including scheduling of exams, and assignments.
- If no prior arrangement has been made and neither I nor a substitute instructor has arrived by 30 minutes after the scheduled start of class, the students may leave.

Academic Dishonesty:
Any student cheating or knowingly assisting another student through verbal or through any kind of electronic devices in committing an act of academic dishonesty will automatically receive a grade of zero and will be excused from the exam and/or homework assignments. Furthermore, students may also be subject to penalty in accordance with the regulations of Kadir Has University.

Course Rules:
Turn all cell phones off or take the flight mode during on-line class.

Note: The instructor reserves the right to modify the information contained in this document at his discretion.