

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
PRODUCTION PLANNING and CONTROL	IND3149120	Fall Semester	3+0	3	6
Prerequisites Courses	MODELLEME VE OPTİMİZASYONA GİRİŞ				
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Required				
Course Coordinator	Assoc.Prof. Melis Almula KARADAYI				
Name of Lecturer(s)	Assoc.Prof. Melis Almula KARADAYI				
Assistant(s)					
Aim	The objective of this course is to teach basic concepts of production planning and inventory control systems; obtaining a fair understanding of capacity planning, aggregate production planning, and inventory analysis; recognizing the relationships among the strategic, tactical and operational levels of planning in production systems by understanding the mathematical foundation behind these tools.				
Course Content	This course contains; Introduction to Production Systems,Demand Forecasting,Demand Forecasting,Demand Forecasting,Aggregate Production Planning,Aggregate Production Planning,Aggregate Production Planning,MIDTERM WEEK (21.11.2020-29.11.2020),Inventory Management,Inventory Management,Inventory Management,MASTER PRODUCTION SCHEDULE (MPS),Material Requirements Planning (MRP),Material Requirements Planning (MRP),Presentations.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
Differentiate production layouts			1, 2	A, E	
Understand basic concepts of production, production planning and inventory control systems			1, 15, 2, 8	A, E	
Use forecasting techniques to forecast demand			1, 15, 2, 6, 8	A, E	
Construct and model aggregate production plans			1, 15, 2, 6, 8	A, E	
Understand inventory control subject to known and uncertain demand			1, 15, 2, 6, 8	A, E	
Construct Master Production Schedule (MPS)			1, 15, 2, 6, 8	A, E	
Construct Materials Requirement Planning (MRP) and solving lot sizing techniques			1, 15, 2, 6, 8	A, E	
Teaching Methods	1: Lecture, 15: Problem solving, 2: Question - Answer, 6: Role Model, Making an example, 8: Teamwork				
Assessment Methods	A: Written Exam, E: Quiz				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Introduction to Production Systems				
2	Demand Forecasting				
3	Demand Forecasting				
4	Demand Forecasting				
5	Aggregate Production Planning				
6	Aggregate Production Planning				
7	Aggregate Production Planning				
8	MIDTERM WEEK (21.11.2020-29.11.2020)				
9	Inventory Management				
10	Inventory Management				
11	Inventory Management				
12	MASTER PRODUCTION SCHEDULE (MPS)				
13	Material Requirements Planning (MRP)				
14	Material Requirements Planning (MRP)				
15	Presentations				
Evaluation Methods		Weight(%)			
Midterm Exam		30			
General Exam		70			

Resources
Nahmias S., Production and Operations Analysis, 6th Edition, McGraw-Hill. ISBN-10: 7302203474 Sipper D., R.L. Bulfin, Production: Planning, Control, and Integration, McGraw-Hill, 1997
Zipkin, Paul H. Foundations of Inventory Management. Boston: McGraw-Hill, 2000, ISBN-10: 0256113793