



COURSE / MODULE / BLOCK DETAILS

ACADEMIC YEAR / SEMESTER

Offered by: Endüstri Mühendisliği			
Course Title: SUPPLY CHAIN MODELLING AND ANALYSIS		Course Org. Title: SUPPLY CHAIN MODELLING AND ANALYSIS	
Course Level: Lisans		Course Code: IND 4902	
Language of Instruction: İngilizce		Form Submitting/Renewal Date 19/02/2013	
Weekly Course Hours: 3		Course Coordinator: DOÇENT BİLGE BİLGEN	
Theory	Application	Laboratory	National Credit: 3
3	0	0	ECTS Credit: 4



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FACULTY OF ENGINEERING OFFICE OF THE DEAN



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Offered to:	Course Status: Compulsory/Elective
Name of the Department:	
Industrial Engineering	Elective Course

Wire: 0 232 301 72 15

Fax: 0 232 301 72 10

Access: <http://www.eng.deu.edu.tr>

Address: Dokuz Eylül Üniversitesi Tınaztepe Yerleşkesi 35160 Buca/İZMİR E-mail: muhendislik@deu.edu.tr



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Instructor/s:

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Course Objective:

To be able to model and analyze supply chain management and logistics problems.

Learning Outcomes:

- 1 An ability to identify main concepts of supply chain management
- 2 An ability to derive mathematical programming models for solving the supply chain management problems.
- 3 To teach students to use problem solving tools to analyze strategic, tactical, and operational supply-chain decisions including facility location, vehicle routing problems.
- 4 To engage students in case studies based on real world supply chain decisions.
- 5 An ability to solve logistics optimization problems via mixed integer linear programming models.

Learning and Teaching Strategies:

The presentations which are prepared by using books, articles and proceedings as well as class board will be used in the scope of the course programme.

Assessment Methods:

Name	Code	Calculation formula
Vize	VZ	
Ödev	OD	
Final	FN	
Bütünleme Notu	BUT	
BNS	BNS	$VZ*035+D *015+FN * 050$
Bütünleme Sonu Başarı Notu	BBN	$VZ*035+D *015+BUT * 050$

Further Notes about Assessment Methods:

Textbook(s): Supply Chain Management: Strategy, Planning, and Operations, Chopra, S. and Meindl, P., Prentice Hall, 2010

Supplementary Book(s): Introduction to Computational Optimization Models for Production Planning in a Supply Chain, Stefan Vob, David L. Woodruff, Springer, 2003.



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Assessment Criteria:

Textbook(s)/References/Materials:

Textbook(s): Supply Chain Management: Strategy, Planning, and Operations, Chopra, S. and Meindl, P., Prentice Hall, 2010

Supplementary Book(s): Introduction to Computational Optimization Models for Production Planning in a Supply Chain, Stefan Vob, David L. Woodruff, Springer, 2003.

Course Policies and Rules:

Contact Details for the Instructor:

bilge.bilgen@deu.edu.tr

Office Hours:

Thursday 14:00-16:00

Course Outline:

Week	Topics:	Notes:
1	Introduction	
2	Supply chain network design	
3	Supply chain network design under uncertain environment	
4	Facility location problem	
5	Aggregate planning in a supply chain	
6	Transportation in a supply chain	



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7	Travelling salesperson problem, vehicle routing problem
8	Sourcing decisions in a supply chain
9	Supplier selection problem
10	Midterm Exam
11	Reverse supply chain management
12	Coordination in supply chain
13	Presentations
14	Presentations



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ECTS Table

Course Activities	Number	Duration (hour)	Total Work Load (hour)
In Class Activities			
Lectures	14	3	42

Exams

Final	1	1,5	2
Midterm	1	1,5	2

Out Class activities

Preparations before/after weekly lectures	14	2	28
Preparation for midterm exam	1	8	8
Preparation for final exam	1	12	12
Preparing presentations	1	12	12
Total Work Load (hour)			106
ECTS Credits of the Course= Total Work Load (hour) / 25			4