LINEAR PROGRAMMING

1	Course Title:	LINEAR PROGRAMMING
2	Course Code:	MAT4030
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	8
7	ECTS Credits Allocated:	6.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Ögr. Üyesi SETENAY DOĞAN
15	Course Lecturers:	Yrd.Doç.Dr.Nisa Çelik Yrd.Doç.Dr.Emrullah Yalçın Yrd.Doç.Dr.Sezai Hızlıyel
16	Contact information of the Course Coordinator:	setenay@uludag.edu.tr 0224 2941763 U.Ü. Fen Edebiyat Fakültesi Matematik Bölümü Nilüfer BURSA
17	Website:	
18	Objective of the Course:	The aim of the course is to introduce the students to the linear programming problem may be defined as the problem maximizing or minimizing a linear function subject to linear constrains. And solved Grafic, Simplex, Transport methods of its problems,
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

		1	Has the basic Mathematic Knowledge
		2	Develop a possible plan for solving problems
		3	Analyze problem with a different perspective
		4	Generate possible solutions to the problems
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21	Course Content:	

Course Content:	

Week	Theoretical	Practice
1	A lineer programming definitions, theorems and methods of solution.	

2	Graphic method of solving a lineer programming problem, solution is possible and the optimem solution	
3	Graphic method ,the maximum state and solution	
4	Graphic method, the minimum state and solution	
5	Convex set and the situation dejenerated	
6	Simplex Method	
7	Simplex table and solution	
8	Production of the simplex method , max. objective function and solution	
9	Production of the simplex method min.objective function and solution	
10	Midterm exam and general review	
11	Unbounded solution and duality	
12	Transport problems and solution	
13	Optimality control.Objective function obtaining	
14	Approximation methods.	
22	Textbooks, References and/or Other Materials:	Matematik programlama .Ylmaz Tulunay Yöneylem araştırmasında kullanılan karar yöntemleri.Alptekin Esin Linear Programming.Thomas S.Ferguson

Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14	3.00	42.00
Midterm Exam	1	40.00		
Practicals/Labs		0	0.00	0.00
Self study and preperation		14	4.00	56.00
Home work-prdiect	0	0.00		
Homeworks		0	0.00	0.00
Projects		0	0.00	0.00
Total	2	100.00		
Field Studies		0	0.00	0.00
Midterm exams		1	10.00	10.00
Others		14	4.00	56.00
Final Exams		1	12.00	12.00
Total		100.00		
Total Work Load				176.00
Total work load/ 30 hr				5.87
ECTS Credit of the Course				6.00

25		**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**															
		PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2		0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3		0	5	0	1	2	0	0	0	0	0	0	0	0	0	0	0
ÖK4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

LO: Learning Objectives   PQ: Program Qualifications

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High