	GIS TECHNIQU	JES O	N LAND MANAGEMENT							
1	Course Title:	GIS TEC	CHNIQUES ON LAND MANAGEMENT							
2	Course Code:	TPR4920-S								
3	Type of Course:	Optional								
4	Level of Course:	First Cyc	le							
5	Year of Study:	4								
6	Semester:	8								
7	ECTS Credits Allocated:	3.00								
8	Theoretical (hour/week):	1.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	no								
12	Language:	Turkish								
13	Mode of Delivery:	Face to face								
14	Course Coordinator:	Doç.Dr. ERTUĞRUL AKSOY								
15	Course Lecturers:	Yrd.Doç.Dr. Gökhan ÖZSOY								
16	Contact information of the Course Coordinator:	Uludağ Üniversitesi, Ziraat Fakültesi, Toprak Bilimi ve Bitki Besleme Bölümü 16059 Görükle Kampüsü, Nilüfer/Bursa Tel: 0-224-2941534 E-posta: aksoy@uludag.edu.tr								
17	Website:									
18	Objective of the Course:	To acquire skills and knowledge on: The basic principles of Geographic Information Systems (GIS); tools and software used in GIS; application areas of GIS; use of GIS techniques in land management and agricultural applications.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	To describe the definition of GIS, basic principles and elements, general and agricultural use of GIS.							
		2	To describe the GIS software and hardware systems commonly used in Turkey and in the World.							
		3	To comprehend adequate information on the basic elements of GIS, digital data sources, methods of obtaining data, and creating data bases.							
		4	To use GIS techniques used for monitoring (our) natural resources such as soil, water and forest.							
		5	To be able to follow the innovations in GIS applications for monitoring, protecting and developing natural resources in Turkey and in the World.							
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		8								
		9								
		10								
21	Course Content:									
		Co	ourse Content:							
Week	Week Theoretical Practice									

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1	Introduction to GIS. Geographic info system concept and history of GIS	rmation	To Introduce software, hardware and tools of Remote sensing and GIS laboratory							
2	Basic principles of GIS		Former systems used in GIS.							
3	Hardware and software needs in GI input and output	S, data	Data input with a digitizer.							
4	Spatial data base concept		To show and explain toolbox and modules of ArcGIS software program							
5	Vector model in GIS (vector data typ	es)	To present vector data and their properties in ArcGIS media							
6	Raster model in GIS (raster data type	es)	To present raster data and their properties on different satellite data in ArcGIS media							
7	Repeating courses and midterm exam Basic coordinate systems and GIS.									
8	Widely used GIS software programs national and international scale	in	NetCAD, ENVI, Geomedia, Global Mapper, ILWIS, ArcGIS.							
9	Data analysis and modeling		To show data analysis a Media	and modeling metho	ods in ArcGIS					
10	Data input (geographic correction, di attribute table and thematic map gen			show and teach data input tools of ArcGIS program d data input (analog and digital soil and topographical						
11	Continuous Surface Creation (DEM,	, TIN)	Explanation of 3D module of ArcGIS program, creation of DEM and TIN surface by using digital elevation contours (points)							
12	3D Modeling and analysis in relation management (Slope and aspect, cro section, cut and fill, watershed analy	oss-	Producing slope, aspect, shadow etc. data and their maps from DEM and TIN surface							
Activi	ites		Number	Duration (hour)	Total Work Load (hour)					
Theore	etical		14	1.00	14.00					
				1.00	14.00					
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Final Exam 1								60.	.00								
Total 3								10	0.00								
Contribution of Term (Year) Learning Activities to Success Grade							40.	40.00									
Contribution of Final Exam to Success Grade							60.	60.00									
Total							10	100.00									
Measurement and Evaluation Techniques Used in the Course							ne										
24	EC	:TS /	TS / WORK LOAD TABLE														
25	5	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
		PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1		3	0	0	0	5	0	4	4	0	0	3	0	0	0	0	0
ÖK2		0	0	0	0	5	0	0	4	0	0	0	0	0	0	0	0
ÖK3		0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
ÖK4		3	0	3	0	5	0	4	0	0	0	4	0	0	0	0	0
ÖK5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications											ı						
Contrib1 very low2 lowutionLevel:			3	3 Medium			4 High			5 Very High							