GEOGRAPHIC INFORMATION SYSTEMS (GIS)										
1	Course Title:	GEOGR	APHIC INFORMATION SYSTEMS (GIS)							
2	Course Code:	TOP693	6							
3	Type of Course:	Optional								
4	Level of Course:	Third Cy	cle							
5	Year of Study:	1								
6	Semester:	2								
7	ECTS Credits Allocated:	5.00								
8	Theoretical (hour/week):	2.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	none								
12	Language:	Turkish								
13	Mode of Delivery:	Face to f	ace							
14	Course Coordinator:	Doç.Dr. ERTUĞRUL AKSOY								
15	Course Lecturers:	yok								
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 introduce field of use and advantage of GIS in natural resources management and planning; used software programs and techniques for to manage spatial (geographic) data.								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	To describe the definition of GIS, principles and elements of GIS, and use of GIS.							
		2	To compute the GIS software and hardware systems commonly used in Turkey and in the World.							
		3	To comprehend and analyzes data bases in GIS.							
		4	To compute and interpret the GIS techniques used for monitoring natural resources such as soil, water and forest.							
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21	Course Content:									
		Co	ourse Content:							
Week	Theoretical		Practice							
1	Introduction to GIS Geographic information system con- history of GIS	cept and	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 GIS input and output	S, data	Data input with a digitizer.							
4	Spatial data base concept		To show and explain toolbox and modules of Arc GIS software program							
5	Vector model in GIS (vector data type	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	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 and modeling methods in ArcGIS Media							
10	Data input (geographic correction, digitizing, attribute table and thematic map generating) map sample) Distribution of homework subject to students									
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) (1. Homework subject) Producing slope, aspect, shadow etc. data and their mans							
12	3D Modeling and analysis in relation to land management (Slope and aspect, cross- section, cut and fill, watershed analysis) Producing slope, aspect, shadow etc. data and their from DEM and TIN surface (2. and 3. Homework sub									
13	Output creation and error sources in	GIS	Explanation of	output m	odule of ArcGIS pro	ogram and				
Activit	es		Number		Duration (hour)	Total Work Load (hour)				
Theore	rical Textbooks, References and/or Other		Aksov, E. GIS	Cource n	2.00 otes, 25p.	28.00				
Practica	als/Labs		14		2.00	28.00				
Self stu	dy and preperation	Systems. McG	4. mitoda iraw Hill. 4	tion to Coographi 1009:	14.00					
Homew	vorks		4		10.00	40.00				
Project	8		Geodatabases	Case stu	diegin GIS data m	ngang ESRI				
Field S	tudies		0		0.00	0.00				
Midtern	n exams		Mi î chell. A. 20	05. The E	ଶାହି ସାହି।009uide to GIS /	15-10-9-10-12.				
Others			0		0.00	0.00				
Final E	kams		1		22.00	22.00				
Total W	/ork Load				· · · · · · · ·	147.00				
Total w	ork load/ 30 hr					4.90				
ECTS (Credit of the Course		• { • • • • •	· · · · ·		5.00				
			 Skidmore, A. (editor). 2002. Environmental modelling with GIS and remote sensing. Taylor & Francis, London.268p. Aranof, S., 1989., An Introduction to Geographic Information Systems, Ottowa. Burrough, P.A., 1986. Principles of Geographical Information Systems for Land Resurces Assessment. Univ. Of Utrecht, The Netherlands. Clarendon Press, Oxford. 							
23	Assesment									
TERM L	EARNING ACTIVITIES	NUMBE	WEIGHT							
Midterm Exam			30.00							

0

Quiz

0.00

Home work-project						4		20	20.00								
Final Exam 1							50	50.00									
Total 6							10	100.00									
Contribution of Term (Year) Learning Activities to Success Grade							50	50.00									
Contribution of Final Exam to Success Grade							50	50.00									
Total							10	100.00									
Measurement and Evaluation Techniques Used in the Course						ne											
24 EC	CTS /	WO	RK L	OAD	TAB	LE											
25 CONTRIBUTION OF LEAD								ARN QUA	RNING OUTCOMES TO PROGRAMME JALIFICATIONS								
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16	
ÖK1	5	0	5	5	4	3	0	0	0	0	3	0	0	0	0	0	
ÖK2	4	0	0	5	0	0	0	0	0	0	4	0	0	0	0	0	
ÖK3	4	0	0	5	0	0	0	0	0	0	5	0	0	0	0	0	
ÖK4	4	0	0	5	0	3	0	4	0	0	0	0	0	0	0	0	
LO: Learning Objectives PQ: Program Qualifications																	
Contrib ution Level:	1 very low 2 low				3 Medium		4 High			5 Very High							