	GEOGRAPHIC INFORMATION SYSTEMS					
1	Course Title:	GEOGR	APHIC INFORMATION SYSTEMS			
2	Course Code:	TPR1904				
3	Type of Course:	Compuls	sory			
4	Level of Course:	First Cyc	cle			
5	Year of Study:	1				
6	Semester:	2				
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:	yok				
12	Language:	Turkish				
13	Mode of Delivery:	Face to face				
14	Course Coordinator:	Prof. Dr. ERTUĞRUL AKSOY				
15	Course Lecturers:	Doç. Dr. Gökhan ÖZSOY				
16	Contact information of the Course	Prof. Dr. Ertuğrul AKSOY				
	Coordinator:	Tel: 0-224-2941534				
		E-posta: aksoy@uludag.edu.tr				
17	Website:					
18	Objective of the Course:	To gain knowledge and skills about the basic principles of				
10		Geographic Information System (GIS), the tools and software used; the place, importance and benefits of GIS in the management of natural resources, GIS techniques applications in land management and agriculture.				
19	Contribution of the Course to Professional Development:	konows and can apply Geographic Information System techniques in the management of land and natural resources and use a GIS program and tools for this purpose.				
20	Learning Outcomes:					
		1	Knows the definition, basic principles, elements and usage areas of Geographic Information Systems.			
		2	Knows and can use GIS hardware and software that are widely used in our country and in the world.			
		3	Comprehend the subjects of databases and analysis in Geographic Information System.			
		4	Knows and applies Geographic Information System techniques in monitoring and managing important natural resources such as soil, water and forest.			
		5				
		6				
		7				
		8				
		9				
		10				
21	Course Content:					
	Course Content:					
Week	Veek Theoretical Practice					

1	Introduction to GIS Geographic information system concept and	To Introduce software, hardware and tools of Remote sensing and GIS laboratory			
	history of GIS				
2	Basic principles of GIS	Former systems used in	GIS.		
3	Hardware and software needs in GIS, data input and output	Data input with a digitizer. data editing on screen (screen digitizing)			
4	Spatial data base concept	To show and explain toolbox and modules of Arc GIS software program			
5	Vector model in GIS (vector data types and their properties)	To present vector data and their properties in ArcGIS media			
6	Raster model in GIS (raster data types and their properties)	To present raster data and their properties on different satellite data in ArcGIS media			
7	Basic coordinate systems and their importance	Basic coordinate systems and coordinate transformation examples.			
8	Widely used GIS software programs in national and international scale	NetCAD, ENVI, Geomedia, Global Mapper, ILWIS, ArcGIS.			
9	Data analysis and modeling concept	To show data analysis and modeling methods in ArcGIS Media			
10	Data input (geographic correction, digitizing,	To show and teach data	a input tools of Arco	GIS program	
Activit	es	Number	Duration (hour)	Total Work Load (hour)	
Thepre	ලිමhtinuous Surface Creation (DEM, TIN)	Explanation of 3D modu	ાં eે. છે PArcGIS progra	n14.9eation of	
Practic	als/Labs	14	2.00	28.00	
Self-study and preperation analysis in relation to land		Producing slope, aspect	0.00 shadow etc. data	0.00 and their maps	
Homew		4	4.00	16.00	
Project	Section, cut and fill, watershed analysis)	Explanation of output m	0.00	0.00	
Field S		0	0.00	0.00	
Mi t/4 ern	িছঃ emstation of homework reports and	E/aluation of home-wor	വ്യൂ ∂0 rts, Disclosu	de 5o Dβossible	
Others	1 1	0	0.00	0.00	
Final E	xams	1	24.00	24.00	
Total Work Load				112.00	
Total w	rork load/ 30 hr			3.23	
ECTS (Credit of the Course			3.00	

Chang, K. 2004. Introduction to Geographic Information Systems. McGraw Hill. 400p. Arctur, D. and Zeiler, M. 2004. Designing Geodatabases: Case studies in GIS data modeling. ESRI press, USA. 393p. Mitchell, A. 2005. The ESRI Guide to GIS Analysis: Vol. 2, Spatial measurements and statistics. ESRI press, USA. 238p. Burke, R. 2003. Getting to know ArcObjects. ESRI press, USA. 422p. Maidment, D.R. (editor). 2002. Arc hydro: GIS for water resources. ESRI press, USA. 203p. 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. TERM LEARNING ACTIVITIES NUMBE RIGHT Milderm Exam 1 20.00 Quiz 0 0.00 Home work-project 4 20.00 Final Exam 1 60.00 Total 100.00 Measurement and Evaluation Techniques Used in the Course Wesserment and Evaluation Techniques Used in the Course LECTS / WORK LOAD TABLE	Textbooks, References and/or Other Materials:			Aksoy, E. Coğrafi Bilgi Sistemi ders notları.25s.		
Geodatabases: Case studies in GIS data modeling. ESRI press, USA. 393p. Mitchell, A. 2005. The ESRI Guide to GIS Analysis: Vol.2, Spatial measurements and statistics. ESRI press, USA. 238p. Burke, R. 2003.Getting to know ArcObjects. ESRI press, USA. 422p. Maidment, D.R. (editor). 2002. Arc hydro: GIS for water resources. ESRI press, USA. 203p. Skidmore, A. (editor). 2002. Environmental modelling with GIS and remote sensing. Taylor & Francis, London.268p. Aranof, S., 1989., An Introduction to Geographical Information Systems, Ottowa. Burrough, P.A., 1986. Principles of Geographical Information Systems for Land Resurces Assessment. Univ. Of Utrecht, The Netherlands. Clarendon Press, Oxford. TERM LEARNING ACTIVITIES NUMBE R Midterm Exam 1 20.00 Quiz 4 20.00 Guiz Home work-project 4 20.00 Final Exam 1 60.00 Contribution of Term (Year) Learning Activities to Success Grade Contribution of Final Exam to Success Grade Contribution of Final Exam to Success Grade Measurement and Evaluation Techniques Used in the Course Measurement and Evaluation Techniques Used in the Course Measurement and Evaluation Techniques Used in the Course		materiale.				
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resources. ESRI press, USA. 203p. 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						
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 Assesment. Univ. Of Utrecht, The Netherlands. Clarendon Press, Oxford. 23 Assesment TERM LEARNING ACTIVITIES NUMBE R WEIGHT Midterm Exam 1 20.00 Quiz 0 0.00 Home work-project 4 20.00 Final Exam 1 60.00 Total 6 100.00 Contribution of Term (Year) Learning Activities to Success Grade Contribution of Final Exam to Success Grade 60.00 Total Measurement and Evaluation Techniques Used in the Course Wesser and Sender Sende						
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Course the priciples of Bursa uludag University Associate and Undergraduate Education Regulation.	Total	Total		100.00		
24 ECTS / WORK LOAD TABLE	1	Course		the priciples of Bursa uludag University Associate and		
	24	24 ECTS / WORK LOAD TABLE				

CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME **QUALIFICATIONS** PQ1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 PQ16 ÖK1 ÖK2 ÖK3 ÖK4

LO: Learning Objectives PQ: Program Qualifications

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