



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Introduction to Remote Sensing							
Course Code		BSM415		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	5	Workload	125 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		To gain knowledge and skills about the principles of Remote Sensing (RS), tools used in RS, software and digital data, RS application areas, RS applications in agriculture and natural resources monitoring.							
Course Content		Basic principles of remote sensing, usage areas, space platforms used in UA, satellite images, applications of UA in agriculture							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion, Case Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Sesören, A., 1999. Uzaktan Algılamada Temel Kavramlar. Mart Matbaacılık, İstanbul.
2	Lillesand, T.M., Kiefer, R.W., 2000. Remote Sensing and Image Interpretation. Fourth Ed. John. Wiley and Sons, Inc., New York, 710 pp.
3	Aronoff, S. 2005. Remote Sensing for GIS Managers. ESRI press, Redlands, California, USA. 487p.
4	Buiten, H.J., Clevers J.G.P.W., 1993. Land Observation By Remote Sensing Theory and Applications. Wageningen Agricultural Uni. The Netherlands. Gordon and Breach Science Publishers.
5	Shrestha, D.P., 1991. An Introduction to Remote Sensing From Space. ITC, International Institute for Aerospace Survey and Earth Sciences

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction
2	Theoretical	Remote Sensing Application Areas
3	Theoretical	Basic principles of remote sensing
4	Theoretical	Electromagnetic Radiation
5	Theoretical	Image and Digital Image Processing
6	Theoretical	Space Platforms Used in Remote Sensing
7	Theoretical	Space Platforms Used in Remote Sensing
8	Theoretical	Space Platforms Used in Remote Sensing
9	Intermediate Exam	Midterm Exam
10	Theoretical	Satellite Images
11	Theoretical	Image processing
12	Theoretical	Classification, Pixelization
13	Theoretical	Applications of Remote Sensing in Agriculture
14	Theoretical	Remote Sensing and Soils
15	Theoretical	Mapping Soils with Remote Sensing Techniques
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	5	3	112
Midterm Examination	1	5	1	6



Final Examination	1	6	1	7
Total Workload (Hours)				125
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To describe the definition of RS, basic principles and elements of RS, areas of general and agricultural use of RS.
2	To define the properties of remote sensing hardware and software commonly used in Turkey and in the World.
3	To define the basic elements of RS, digital data sources and methods of obtaining data.
4	To interpret the basic RS techniques used for monitoring natural resources such as soil, water and forest.
5	To follow the innovations on RS applications for monitoring, protecting and developing natural resources in Turkey and in the World.

