



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Landscape Pattern and Analysis Techniques							
Course Code		ZPM541		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	200 (<i>Hours</i>)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course		This course aims to examine the relationships between landscape pattern, processes and change, and to show the importance of landscape pattern analysis in ecological landscape planning processes by the application of different tools and analysis techniques.							
Course Content		General definitions, principles and concepts related to landscape and landscape ecology. Landscape fragmentation (LF), drivers, consequences and effects of LP on landscapes. Landscape composition, configuration, analysis and implementation of landscape metrics. Examination of case studies for incorporating the results landscape pattern analysis into landscape planning processes.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion, Case Study, Project Based Study, Individual Study					
Name of Lecturer(s)		Assoc. Prof. Ebru ERSOY TONYALOĞLU							

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	40
Assignment	2	30

Recommended or Required Reading

1	Kışlalıoğlu, M. ve Berkes, F. 1993. Çevre ve Ekoloji. Çevre Sorunları Dizisi, Ankara.
2	Alberti, M., 2008. Advances in urban ecology: integrating humans and ecological processes in urban ecosystems (No. 574.5268 A4). New York: Springer.
3	Forman, R.T., 2014. Urban ecology: science of cities. Cambridge University Press.
4	Breuste, J., Feldmann, H. and Uhlmann, O. eds., 2013. Urban ecology. Springer Science & Business Media.
5	Gaston, K.J. ed., 2010. Urban ecology. Oxford University Press.
6	Niemelä, J., Breuste, J.H., Guntenaspergen, G., McIntyre, N.E., Elmqvist, T. and James, P. eds., 2011. Urban ecology: patterns, processes, and applications. OUP Oxford.
7	McPhearson, T., Pickett, S.T., Grimm, N.B., Niemelä, J., Alberti, M., Elmqvist, T., Weber, C., Haase, D., Breuste, J. and Qureshi, S., 2016. Advancing urban ecology toward a science of cities. BioScience, 66(3), pp.198-212.
8	Douglas, I., Goode, D., Houck, M. and Maddox, D. eds., 2010. Handbook of Urban Ecology. Routledge.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to course: content, reason, importance, process method and needs.
2	Theoretical	General definitions, principles and concepts related to landscape and landscape ecology
3	Theoretical	General definitions, principles and concepts related to landscape and landscape ecology
4	Theoretical	Introduction to landscape metrics
5	Theoretical	Issues and restrictive factors to be considered in landscape pattern analysis
6	Theoretical	Landscape composition metrics
7	Theoretical	Landscape composition metrics-FRAGSTATS
8	Theoretical	Landscape composition metrics-Patch Analyst
9	Intermediate Exam	Midterm exam
10	Theoretical	Landscape configuration metrics
11	Theoretical	Landscape configuration metrics-FRAGSTATS
12	Theoretical	Landscape configuration metrics-Patch Analyst
13	Theoretical	Issues and restrictive factors to be considered in landscape pattern analysis
14	Theoretical	Examination of case studies for incorporating the results landscape pattern analysis into landscape planning processes.
15	Theoretical	Examination of case studies for incorporating the results landscape pattern analysis into landscape planning processes.



16	Final Exam	Final exam
----	------------	------------

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	4	2	84
Lecture - Practice	14	4	2	84
Assignment	2	4	1	10
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To describe dynamic landscape patterns in an integrated manner
2	To understand landscape pattern analysis related to ecological processes.
3	To explore the relationships between landscape pattern, change and ecological processes.
4	To explore the ecological sense of landscape pattern based on a set of landscape metrics.
5	To be able to conduct landscape pattern analysis and interpretation of results by multi-scale pattern analysis.

Programme Outcomes (*Landscape Architecture Master*)

1	e
2	e
3	e
4	e
5	e

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5
P1	5	5	5	5	4
P2	5	5	5	5	5
P3	2	2	2	4	4
P4	5	5	5	5	5
P5	3	3	3	4	4

