

**ERASMUS MUNDUS MASTER PROGRAMME IN SOIL SCIENCE – emiSS**  
**2020-2021 ACADEMIC YEAR - MODULE SYLLABUS**

<b>Name of course:</b>	
<b>LAND EVALUATION</b>	
ECTS	6
Type of Course	<i>Elective</i>
Form of Examination	<i>Written Examination</i>
Prerequisites	<i>Basic knowledge in the soil science, agricultural, forestry, environmental, geology or earth science.</i>

<b>Field of Study:</b>	
<b>Agriculture</b>	
Education profile	<i>Academic</i>
Code of study form and level of education	<i>Master of Science</i>
Academic year/Semester	<i>First year/Fall Semester</i>
Specialization	<i>Agriculture</i>
Language of education	<i>English</i>

<b>The lecturer module:</b>	
The name of faculty	<i>Ondokuz Mayıs Univ. Faculty of Agriculture</i>
The name of department	<i>Soil Science &amp; Plant Nutrition</i>

**Educational outcomes:**

**Description of the learning effect**

**KNOWLEDGE - student knows and understands:**

1	<i>Student knows general concept about land evaluation approaches</i>
2	<i>Student knows the land resource evaluation and land use planning</i>
3	<i>Student knows the use of some land evaluation software programs</i>

**SKILLS - the graduate can**

1	<i>Student obtains the necessary scientific information from literature, databases or other sources</i>
2	<i>Student shows the ability to interpret results and draw conclusions land evaluation and land use planning.</i>

<b>SOCIAL COMPETENCES - graduate:</b>	
1	<i>Student shows activity during a discussion on various issues related to land evaluation and land suitability</i>
2	<i>Student has the competence to participate in land use planning research and discuss their results</i>

### Course objectives and content:

This course is to acquaint the graduate students with fundamental concepts of advanced soil physics.

Relationships among solid, liquid and gas phases, total potential of soil water, water flow in planar, radial and spherical symmetries, heat transport in soil system, saturated and unsaturated flow, solutions for some flow problems.

<b>Land Evaluation</b>		<i>36 hours</i>
Subject of lecture	1	<i>Description and aims of the land evaluation 3 h</i>
	2	<i>Characteristic of lands 3 h</i>
	3	<i>Graphic and non-graphic data preparation and gathering 3 h</i>
	4	<i>About land quality 3 h</i>
	5	<i>Processes of the land evaluation 3 h</i>
	6	<i>Land capability classification 3 h</i>
	7	<i>Midterm exam</i>
	8	<i>Hierarchy approach (FAO system) 3 h</i>
	9	<i>Parametric approach (Productivity, index, Fertility index, Storie Index etc.) 3 h</i>
	10	<i>Using some software programs (ILSEN, TADEM etc.) for land evaluation 3 h</i>
	11	<i>Multi-Criteria Decision Analysis for the Land Evaluation 3 h</i>
	12	<i>Case study for hierarchy approach 3 h</i>
	13	<i>Case study for parametric approach 3 h</i>
	14	<i>Final exam</i>
The methods of verification and assessment criteria and principles		<i>For a positive grade, sum of 40% of midterm (100%) and 60% of final (100%) exams should be greater than 60.</i>

### Literature:

Recommended Textbooks	<ol style="list-style-type: none"> <li>1- Cinemre, H.A and Dengiz, O. 2010. <i>Land Use Planning</i>. OMU, Samsun.</li> <li>2- FAO. (1983) <i>Guidelines: Land evaluation for rainfed agriculture Soils Bulletin 52</i> . Food and Agriculture Organisation of the United Nations. Rome.</li> <li>3- FAO. (1993) <i>Guidelines for land use planning</i> . FAO development series 1. Food and Agriculture Organisation of the United Nations. Rome</li> <li>4- FAO. (1976) <i>A framework for land evaluation</i>. Soils Bulletin 32 . Food and Agriculture Organisation of the United Nations. Rome.</li> </ol>
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Complementary	<i>Current publications in scientific journals related to course issues and some course materials supported by lecturer.</i>
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**Structure of learning outcomes:**

**The area of study:** agricultural, soil science, environmental science, natural resources      **6 ECTS\***

**The structure of student activity:**

<i>Learning Activities</i>	<i>Amount</i>	<i>Time (h)</i>	<i>Total workload (h)</i>
Participate in lecture	12	3	36
Participate in midterm exam	1	2	2
Individual study for midterm exam	6	3	18
Individual study for lectures	12	1	12
Laboratory study	10	2	20
Quiz			
Assignment	10	2	20
Participate in final exam	1	2	2
Individual study for final exam	6	3	18
Literature critical review			
Oral exam			
Individual study for problem solution	11	2	22
Consultations			
Participate in researches			
Mandatory practices and internships			
	<b>Total workload (h)</b>		<b>150</b>

\*ECTS Credits = Total Workload (Hours) / 25 (Hours/1 ECTS) = 150 / 25 = 6 ECTS

Name Surname  
of Lecturer :

Sign:|

Date: