

**Range Improvements (602474) (3 credit hr)**

Department of Animal Production  
School of Agriculture  
The University of Jordan

Pre-requisite: MNR 272  
2<sup>nd</sup> Semester 2020/2021  
Time: 11-12:30 (M, W)

**Course description**

Selection of range improvements, restrictions on range improvements, planning range improvements, manipulation of range vegetation, revegetation of degraded rangelands, water- harvesting techniques, field assessment of range improvements.

**Objectives**

- To acquaint students with the basic principles of range improvements.
- To train students on planning of range improvements.
- To train students on participatory approach in dealing with pastoral communities.
- To train students on evaluation of range improvements.

**Lecturer:**

Professor Mahfouz "Mohammad Waheed" Abu-Zanat

**Textbook**

Range Development and Improvements, 3<sup>rd</sup> Edition, 1989, by J. Vallentine".

Week	Subject	Reference
1+2	<b>Natural Rangelands (global scale)</b> -Definition -Location -Importance (goods and Services) <b>Natural Rangelands (Jordan)</b> -Definition -Location -Importance (goods and Services)	
3	<b>Characteristics of Rangelands</b> -Physical -Biological -Socioeconomic	
4+5	<b>Rangeland Degradation</b> -Definition of degradation -Expression of degradation (rate, type...) -Drivers of degradation -Symptoms of degradation -Economic loss <b>International Organizations Working on Rangeland Degradation</b> (UNCCD, UNEP, FAO, ICARDA, GEF, IFAD...)	
6+7+8+9	<b>Improvement of Rangelands</b> -Definitions (rehabilitation, restoration, desertification...) <b>Non-structural Improvement</b> -Enforcement of laws -Amendments of acting laws <b>Structural Improvement (SI)</b> -Criteria of SI (physical, biological, economics) -Types of SI (revegetation, water harvesting, water spreading techniques, soil amendments...) <b>Effect of Range Improvement on Wildlife</b>	

10	<b>Sustainable Improvement and Role of Local Community</b> -Traditional institutions -Land tenure -Governance	
11+12+13	<b>Evaluation of Improvement</b> -Monitoring plan (parameters, measurement techniques) -Evaluation (meeting objectives or not) <b>Valuation of Interventions</b>	
14+15	<b>Case Studies on Rangeland Improvement in Jordan (BRP)</b>	

#### Course outcomes

At the end of this course, students are expected to be able to:

- To understand the basic principles of range improvements.
- To prepare a plan for range improvements.
- To practice the participatory approach in dealing with communities.
- To evaluate the implemented range improvements.

#### Exams and homeworks

Activity	Proportion	Time	Date
Exam 1	20%	13:00-14:30	Monday: 8 March 2021
Exam 2	20%	13:00-14:30	Monday: 5 April 2021
HWs (5x2)	10%		February: 22, March: 15, 29, April: 12, 21
Final Exam	50%	TBD	