

Ministry of Higher Education and Scientific research



**Department of Forestry**

**College of Agriculture Engineering Sciences**

**Salahaddin University**

## **Range management Course**

**Second Semester-2022/2023**

**Lecturer: Dr. Ako Hussein Mahmood- Theoretical Part**

**Miss: Payman Hussein – Practical Part**

**2<sup>nd</sup> year – Forestry Department**

## Course Book

<b>1. Course name</b>	<b>Range Management - Spring Semester</b>
<b>2. Lecturer in charge</b>	<b>Dr. Ako Hussein Mahmood</b>
<b>3. Department/ College</b>	<b>Forestry / College of Agriculture Engineering Sciences</b>
<b>4. Contact</b>	<b>e-mail: ako.mahmood@su.edu.krd Tel: (07504908145)</b>
<b>5. Time (in hours) per week</b>	<b>Theory: 2 Practical: 3</b>
<b>6. Office hours</b>	<b>Full time</b>
<b>7. Course code</b>	
<b>8. Teacher's academic profile</b>	I have finished my B.Sc. at Salahaddin University- Erbil – Agriculture college- Plant Production Department 2001; I completed M.Sc. at Salahaddin University- Erbil – Agriculture college- Plant Production Department 2007. I achieved PhD degree at Federation University in Australia in 2016. Currently I am working as the academic staff of Forestry Department -
<b>9. Keywords</b>	<b>Pasture, Range management, Environment , Forestry , Ecology, Ecosystem</b>
<b>10. Course overview:</b>	1- In this course students will learn various aspects about Rangelands in the World and in Kurdistan Region, how plants are growing and develop. 2-knowing the advantages and disadvantages of different types of grazing systems. 3- Also students in the subject should learn how to separate between good and poor pasture management. 4- And also student will get benefit from this topic to know the current situation of grasslands in Kurdistan region, with its problems and recommendations.
<b>11. Course objective:</b>	the objectives of range management may be summarized as follows:  1) To keep the range covered with desirable, strong forage plants. 2) To insure stability of range watersheds by controlling soil erosion, and increasing their water infiltration capacity. 3) To obtain maximum livestock production. 4) To provide a suitable habitat for the development of wildlife. 5) To achieve proper combination of grazing and forestry, in forested ranges.
<b>12. Student's obligation</b>	The student must attend the classes and prepare for the exams, assignment reports, and quizzes.
<b>13. Forms of teaching</b>	Laptop will be used to explain the lecturers, using the power point.

<p><b>14. Assessment</b>                  Distribution of marks for this subject during the course are as follows: -                  1. 100 degree distributed as follows:                  - 40 degrees for the first exam.                  - 40 degrees for the second exam.                  - 10 degrees on Quiz.                  - 5 10 degrees onto the reports and oral presentation.                  2. Exam at the end of course will be on 50%. And The final estimate =100%.</p>	
<p><b>15. Student learning outcome:</b>                  1. Students will be exposed to pasture management and its benefits and their relationship with the forest.                  2. Students will also discover new technology about how to improve natural pastures in Kurdistan.</p>	
<p><b>16. Course Reading List and References:</b>                  1- A Field Handbook for Range and Forest Management: by Niels and Martin , 1993                  2- Temperate perennial pasture establishment guide Steps to ensure success : State of New South Wales through NSW Department of Industry, Skills and Regional Development 2016.</p>	
<p><b>17. The Topics: Theoretical part</b></p>	<p><b>Lecturer's time</b></p>
<p>1 Course outline and introduction                  2 How Plants Grow and develop?                  3 - What is pasture (Rangeland)? What is Range Management?                  4 Natural Rangelands of the World                  5 Pastures in Iraq and Kurdistan Region                  6 Signs of good and poor pasture management                  7 Basic Principles of Pasture management                  8 Basic Principles of Pasture management (continued)                  9 Current situation of Grasslands in Kurdistan Region, with its Problems and Recommendations                  10 Pasture establishment: Site selection and seedbed preparation                  11 Pasture establishment: Seeding and vegetative planting into prepared seedbeds                  12 Grazing management practices:                  Principles of hay production                  13 Principles of silage production                  14 Principle of weed control in pasture lands                  15 Principle of weed control in pasture lands (continued)</p>	<p>(2 hrs) per week                   Dr. Ako Hussein</p>
<p><b>18. Practical Topics (If there is any)</b>  <b>Definitions of Range &amp; Range Management.</b>  <b>Field trip</b>  <b>Morphology of Range plants 1- Legume family</b>  <b>Morphology of Range plants 2- grass family</b>  <b>How to study the natural pasture</b>  <b>Techniques of vegetation studies</b>  <b>1) Quantitative estimate</b></p>	<p><b>Miss Payman Hussein</b>  <b>+Dr. Ako H. Mahmood</b>                  (3 hrs)</p>

<b>2) Qualitative estimate</b> <b>Sampling Techniques</b> <b>Quadrat or Plot method:</b> <b>Transect method</b> <b>Point method</b> <b>Determination of pasture capacity</b>  <b>Field trip</b> <b>Grazing systems</b> <b>Identify some important pasture plants</b> <b>Identify some important pasture plants (continued)</b>	
None	
<b>19. Examinations:</b> The exams will be combination of true and false, explain briefly, define certain concepts, fill the blanks, and compare, and multiple choice.	
<b>20. Extra notes:</b> The course needs labs in future.	
<b>21. Peer review</b> No one in this field	پیداچونہوہی ھاوہل