

Ministry of Higher Education and Scientific research



Department of Forestry

College of Agricultural Engineering Sciences

University of Salahaddin

Subject: Principle of Forestry- Theory& Practical

Course Book: Year 2

Lecturer's name: Shilan Abdurrahman Mirsar

Evan Enayate Mohammad

Zhala Baqi Toha

Academic Year: 2023 - 2024

Course Book

1. Course name	Principle of forestry – Theory & Practical
2. Lecturer in charge	Shilan Abdurrahman Mirsar Evan Enayate Mohammad
3. Department/ College	Forestry/Agricultural Engineering Sciences
4. Contact	e-mail: shilan.mirsar@su.edu.krd Tel: (optional):
5. Time (in hours) per week	8
6. Office hours	10
7. Course code	
8. Teacher's academic profile	<ul style="list-style-type: none"> • Date of Birth: • Place of Birth: Erbil • Nationality: Iraqi • Marital status: Single • Sex: Female <p>Education:</p> <ul style="list-style-type: none"> • B.Sc: Plant Production / College of Agriculture (2001-2002) / University of Salahaddin / Kurdistan Region/ Iraq. • M.Sc: Forestry/ Agroforestry/ College of Agriculture (2007) University of Wales, Bangor/ UK <p>Work History:</p> <p>(A) College of Agricultural Engineering Sciences, Forestry department/ University of Salahaddin /Iraq from 2008 until date (Lecturer) As an lecturer, I am teaching:</p> <ol style="list-style-type: none"> 1- Forest Plantation (Practical) for Third stage students/ Forestry Department 2- Principle of forestry for Second stage students/ Forestry Department <p>Evan E Muhammad Education: I finished my B.Sc. in Erbil Salahaddin University- Agriculture college- forest department. And I finished my high diploma – (physiological of trees) in Salahaddin University-Agriculture college-forest department2019-2022. I started my M.Sc. (physiological of trees) in Salahaddin</p>

	University-Agriculture college-forest 2019-2022. Work History: Now a day I am working as lecturer and department
9. Keywords	Forestry, Tree and Shrubs
10. Course overview: Forests are the main source of many products and the most important wood as a raw material used in many important industries such as the production a major forest in addition to the benefits of other important preventive regard to the maintenance of soil and water sources, and because of increased population density in the world and the worsening problems of industrial pollution due to emissions from factories, cars and increasing problems climate change, drought and desertification in the world, where landscaping is one of the most important steps important to confront these dangers and increasing plant density and air purifier air and prevent water and wind erosion.	
11. Course objective: Goal of principle of forestry: <ol style="list-style-type: none"> 1- Familiarity the student with forest and their types 2- Familiarity the student with forest structure and their part 3- What are the Relationships between forests and other natural resources 4- Comparative study between tree and shrub in forests. 5- Comparative study between plant and tree. 6- Study of effect of climate change on forests 	
12. Student's obligation The objective is for the student to understand what is a forest and how they can to plant trees and shrubs in forest?	
13. Forms of teaching Teaching Methods <ol style="list-style-type: none"> 1. Lecture 2. Self-study Teaching Media <ol style="list-style-type: none"> 1. PowerPoint presentations 	

2. Texts and teaching materials

14. Assessment scheme

We will start most class periods with a short quiz. The quizzes could cover any information presented before that date, but will usually cover information presented in the most recent lectures. The quizzes will be given during the first 5 to 10 minutes of the class period.

Exams will consist of a variety of questions, including multiple definitions, true/false, definition, and differences, occasionally short answer.

Note: Number of exams and lectures for each exam did not specify. **Each student attends a report within the lecture program at the end of the course.**

15. Student learning outcome:

They understand what is a forest, tree and shrub? And methods of plant tree or shrubs and they can do plantation in filed by seeds or seedlings.

16. Course Reading List and References:

3- **Hall**, Keats C.(2003) MANUAL ON NURSERY PRACTICES. Published by Forestry Department-Ministry of Agriculture-173 Constant Spring Road-Kingston 8-Jamaica (West Indies).

2- **Mason**, John.(2004). NURSERY MANAGEMENT. Second Edition. Printed in Australia by Ligare.

4- **Singh**, V. and Lavania, S.K. (2003). Forest Tree seeds and Nursery Management. Bishen Singh. Indian.

1- Verheij, Ed. (2004). Propagating and planting trees. Second Edition. Printed in The Netherlands.

5- عبدالله، ياووز شفيق و عادل ابراهيم الكتاني 1985. مشاتل الغابات. وزارة التعليم العالي و البحث العلمي/ جامعة الموصل.

6- محمد، طلعت محمد امين 2001. التطعيم و التركيب لأشجار الغابات. منظمة FAO قسم الغابات.

7- عبدالله، ياووز شفيق 1984. بذور اشجار الغابات. كلية الزراعة و الغابات/ جامعة الموصل.

17. The Topics:	Lecturer's name
<p>In this section The lecturer shall write titles of all practical topics he/she is going to give during the term. This also includes a brief description of the objectives of each topic, date and time of the lecture</p> <p>1st week: What is a forest? Types of Forests, Forest structure, Parts of a forest, Levels of the forests</p> <p>2nd week: Relationship between forests and other natural resources, How do trees affect a forest?, Trees and Shrubs, Tree Types:</p> <ul style="list-style-type: none"> • Coniferous Trees • Broadleaved Trees <p>3rd week: Difference between Plants & Trees, The main parts of a tree, Tree Classification, Crown Classes</p> <p>4th week:</p> <p>Preparation of seedbeds</p> <p>Seeding in the Nurseries</p> <ol style="list-style-type: none"> 1. Broadcasted 2. In Lines 3. Drills <p>Depth of seed sowing, Time of seeding, Preparation of polythene bag beds, Transplanting, Goals and benefits of the transplanting, The points that must be taken into account during the transplanting</p> <p>5th week:</p>	<p>Lecturer's name</p> <p>ex: (2hrs)</p>

Containers (Pots)

6th week: Maintenance of the Health and Vitality of Forest

Decline of forests caused by multiple factors

Classification of the causes of decline and damage

1- Non-anthropogenic factors

- Abiotic factors

1- Fire

2- Wind

3- Cold injury

4- Snow

5- Air pollution

- Biotic agents

1- Pests and diseases

2- Mammal damage

7th week: Out planting

Tree planting

Planting procedures

Selection of planting stock

8th week: Planting season

Advantage of planting in autumn

Planting methods

Density of planted trees

Spatial arrangement of planted trees

9th week: Limiting factors on the out planting site

Pre-planting preparations

Scalping

Benefits of Scalping

10th week: Scientific Trip

18. Practical Topics

Week: 1

Formation of seeds in Angiosperm, Definition and composition of flowers and the processes that occur in them to the composition of the seed and fruit, Formation and composition of the pollen grain, Formation and composition of embryo sac.

Week: 2

Scientific trips to Parak and classification in forest (Trees and shrubs*

Week: 3

Scientific trip to Grdarasha

Week: 4

Scientific trip College of Agriculture

Week:5

Scientific trip to Ankawa Nursery

Week: 6

Showing different trees seed and leaves can find in Kurdistan.

19. Examinations:

In regard to this subject the type of exam will be as follow:

- 1- Definitions
- 2- Benefits or Advantages and Disadvantages
- 3- True or False
- 4- Fill the following blanks with the correct word
- 5- About the scientific trips
- 6- Drawing
- 7- Differences
- 8- Reasons

20. Extra notes:

Some of the lectures will be presented in PowerPoint lecture will be provided in class. Also, the best wishes to the development of field in the department.

21. Peer review

I am as a lecturer at Forest Department looked at this course book. The topics that were written per week are consented to meet the objectives that have been mentioned here.

Dr. Sherzad Omar
Assist Prof