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**Department of Forestry**

**College of Agricultural Engineering Sciences**

**University of Salahaddin**

**Subject:** Agroforestry-Theory & Practical

**Course Book:** Year 3

**Lecturer's name:** Shilan Abdurrahman Mirsar

**Academic Year:** 2023 - 2024

**Course Book**

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| **1. Course name** | **Agroforestry – Theory & Practice** | |
| **2. Lecturer in charge** | **Shilan Abdurrahman Mirsar** | |
| **3. Department/ College** | **Forestry/Agricultural Engineering Sciences** | |
| **4. Contact** | **e-mail:** shilan.mirsar@su.edu.krd  **Tel: (optional):** | |
| **5. Time (in hours) per week** | **3** | |
| **6. Office hours** | **12** | |
| **7. Course code** |  | |
| **8. Teacher's academic profile** | * Date of Birth**:** * Place of Birth**:** Erbil * Nationality**:** Iraqi * Marital status**:** Single * Sex**:** Female   **Education:**   * **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   **Work History:**   1. College of Agricultural Engineering Scieneces, Forestry department/ University of Salahaddin /Iraq   from 2008 until date (Lecturer)  As a lecturer, I am teaching:   1. Agroforestry for Third stage students/ Forestry Department   2- Silviculture for Second stage students/ Forestry Department | |
| **9. Keywords** | Agroforestry, Type of Agroforestry | |
| **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:**  **The main objectives of Agroforestry subject are:**   1. Definition of Agroforestry system and benefits of the system 2. The effects of agroforestry on soil 3. Types and classification of agroforestry system 4. How we can use agroforestry in our country 5. Effects of trees on crops or vegetables 6. Scientific trips | | |
| **12. Student's obligation**  The objective is for the student to understand what is agroforestry? Types of Agroforestry and How we can do Agroforestry in our region? | | |
| **13. Forms of teaching**  **Teaching Methods**  1. Lecture  2. Self‐study  **Teaching Media**  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, matching, and reasons for, 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:**  1- They understand types of agroforestry. Effects of trees on crops or vegetables of other plants or other parts of agriculture.  2- They have trips to park or some Nurseries to show Agroforestry in there. | | |
| **16. Course Reading List and References‌:**  1- Govindan, K. and Thirumurugan, V. (2003). PRINCIPLES AND PRACTICES OF DRY LAND AGRICULTURE.  2- Panda. S. C. (2004). DRY LAND AGRICULTURE. *Agrobios (India).*  3- Young, Anthony. (1997). AGROFORESTRY FOR SOIL MANAGEMENT. Second Edition. CAB INTERNATIONAL in *association* with International Centre for Research in Agroforestry. | | |
| **17. The Topics:** | | **Lecturer's name** |
| In this section The lecturer shall write titles of all theory 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  **1st week:** Definition of Agroforestry, Main feature of Agroforestry, Good stewardship, Objective and characteristics of the system.  **2nd week:** Benefits of Agroforestry, Adverse effects of trees on soil, Suitability characteristics of the tree species for agroforestry.  **3rd week:** Types of agroforestry system (Silvoculture)  **4th week:** Silvopasture  **5th week:** Forest Farming, Windbreak  **6th week:** Home gardens, Boundary planting(Line Planting), Biomass transfer, Entomoforestry, Aquaforestry, Block planting  **7th week:** Social forestry, Principles of social forestry  **8th week:** Components of social forestry programmes, Advantages of social forestry  **9th week:** Promising multipurpose trees for dry lands, Multiple benefits of multipurpose tree species  **10th week:** Promising Fruit trees for Dry Lands, Nursery Raising for Agroforestry and Water Sheds  **11th week:** Prerequisites for direct seeding in dry lands, Site selection for nursery, Water and its quality for raising nursery, Nursery area  **12th week:** Seeds**,** Seed storage, Pre-treatment of seeds, Soil preparation in nursery beds, Preparation of seedbeds, Sowing in nursery  **13th week:** Scientific Trip | | Lecturer's name  ex: (3hrs) |
| **18. Practical Topics (If there is any)** | |  |
| Scientific Trips | |  |
| **19. Examinations:**  **2** Exams, after each (4) lectures students have an exam  In regard to this subject the type of exam will be as follow:  **1- Definitions:**  e.g.: Agroforestry  **2- Fill the following blanks with the correct word:**  **3- List:**  e.g.: Types of agroforestry  **4- Write:**  a: benefits or advantages  b: adverse or disadvantages  c: objectives or characteristics  d: drawbacks  e.g.: Write benefits of agroforestry system  **5- Write true or false for each sentence and correct the false sentences:**  e.g.: In agroforestry system the rows are best aligned East-West.  Answer (false, North-South)  **6- Choose the correct option:**  e.g.: Growing agricultural crops including legumes along with tree crops in the same piece of agricultural land simultaneously is called ----------------- . (Silvoculture, Forest farming)  Answer (Silvoculture)  **7- Write examples for the following:**  e.g: Suitable trees species for block planting  **8- Question about trips:** | | |
| **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. | | |
| **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  Lecturer | | |