

Ministry of Higher Education and Scientific research



Department of: Soil and Water Science

College of: Agriculture engineering sciences

University of: Salahaddin-Erbil

Subject: Soil Management Technique /Practical

Course Book: 3rd Year Student

Lecturer's name: MSc. Drakhshan Rasul Abdulrahman

Academic Year: 2022/2023

Course Book

1. Course name	Soil Management Technique
2. Lecturer in charge	Drakhshan Rasul Abdulrahman
3. Department/ College	Soil & Water Science/Agriculture
4. Contact	e-mail: drakhshan.abdulrahman@su.edu.krd Tel: 0750 412 9422
5. Time (in hours) per week	Practical: 3
6. Office hours	Availability 10 hours to the student during the week
7. Course code	N/A
8. Teacher's academic profile	I am holding BSc degree in soil and water Science department / College of agriculture engineering sciences from Salahaddin University since 2009, and working as a Demonstrator in the Department of Soil and Water Science/College of agriculture engineering sciences at Salahaddin University for three years. MSc degree in Soil Science (Soil Survey and Management) College of agriculture from Salahaddin University in 2015.
9. Keywords	Soil, management, land use, planning, change, use, land, food, building, urban, cropland, techniques, O.M, nutrient,...
10. Course overview:	
<p>1. Introduction: The importance of land use planning and some definitions / Forms, scales, and goals of land use planning.</p> <p>2. Land use planning for development and protection of infrastructure: economic, social & ecological / Comprehensive and incremental land use planning.</p> <p>3. Using fertilizers increases nutrients such as nitrogen, phosphorus, sulfur, and potassium in the soil. The use of fertilizers influences soil pH and often acidifies soils, with the exception of potassium fertilizer.[23] Fertilizers can be organic or synthetic.</p> <p>4. Land use planning for social and economic development / Environmental</p>	

impact assessment in land use planning.

5. Controlling traffic on the soil surface helps to reduce soil compaction, which can reduce aeration and water infiltration

11. Course objective:

1. To learn the students how is land use planned.
2. To learn and show techniques of soil management.
3. To learn students soil management terms.
4. What is the types of soil management practices.
5. To show the land use change.
6. What are the steps of healthy soil management.

12. Student's obligation

Students of year 3 for the academic year 2022-2023 must abide by the rule and regulations of the ministry of higher education and scientific research in which attendance in the most significant one. Student should not be absent from lectures cause each lecture have a quiz and preparation a report if we have a practice, all of this abide Attendance has 5% mark of total 35%.

13. Forms of teaching

- Data show
- Presentation
- Writing on white board
- paper

14. Assessment scheme

First examination	30
First examination if we can	30
Quiz, absent and report	5
Final assessment	35= practical mark

15. Student learning outcome:

In this semester course the student must be learn what soil management and techniques of it. Also, should be learn about the adding O.M to soil, and other forms of land use. They will be learn to the types of it, and what are the types and steps of benefitting soil.

Although, in this course students will learn about the fundamentals of the land use changes.

Must be known what are methods and goals of it.

16. Course Reading List and References:

1. FAO – 1993 – Guidelines for land use planning. Rome, Italy.
2. [Land+Use+Planning+ G Metternicht.pdf](https://knowledge.unccd.int/sites/default/files/2018-06/6.%20Land%2BUse%2BPlanning%2B_G_Metternicht.pdf)
https://knowledge.unccd.int/sites/default/files/2018-06/6.%20Land%2BUse%2BPlanning%2B_G_Metternicht.pdf
3. [Soil Management - an overview | ScienceDirect Topics](#)
4. Magdoff, F., and H. van Es. *Building Soils for Better Crops: Sustainable Soil Management*. 3rd ed. Handbook Series No. 10. Beltsville, MD: Sustainable Agriculture Network, 2009.

17. The Topics: Theory

Dr. Muslim R. Arab

18. Practical Topics

Lecturer's name

- Basic information.
- What is soil management
- What is the agricultural practices
- What is techniques.
- Goals of good soil management.

Drakhshan R. Abdulrahman

(3hrs)

04/09/2022- 29/12/2022

19. Examinations:

1. Q/ Write what are the three technologies for soil management ?

Typical answer/

- 1. Planting cover crops.
- 2. Crop rotations.
- 3. Nutrient management.

2. Q/ Mention one difference between Efficiency and Equity and acceptability?

Typical answer/

Efficiency. Land use must be economically viable.

Equity and acceptability. Land use must also be socially acceptable.

20. Extra notes:

21. Peer review

پیداچونہوہی ھاوہل