Department of Soil and Water

College of College of Agriculture Engineering Sciences

Salahaddin University- Erbil

Subject: Remediation

Postgraduate Students (Master's degree)- First Semester, 2023-2024

Lecturer's name Asst. Prof. Dr. Tariq F. Sadiq

Academic Year: 2023/2024

Course Book

1. Course name	**Research Methodology**
2. Lecturer's in charge	**Dr Tariq F. Sadiq**
3. Department/ College	**Soil and Water\ Agriculture**
4. Contact	**ta.fa2008@yahoo.com** **tariq.sadiq@su.edu.krd** **Tel: 009647504699925 or 009647704355844**
5. Time (in hours) per week	**Theory: 2 hrs/w**
6. Office hours	**Daily from 8:30am to 2:00pm**
7. Course code	
8. Teacher's academic profile (Tariq F. sadiq)	https://academics.su.edu.krd/tariq.sadiq
9. Keywords	Research, Methodology, proposal, Publication, writing

10. Course overview:

- This course is designed to equip educators with the knowledge and skills necessary to identify, assess, and address the learning needs of students who require additional support to meet academic standards.
- This course emphasizes evidence-based strategies, practical interventions, and the development of individualized learning plans to help students overcome learning barriers and achieve their full potential.

11. Course objective:

The primary objective of the "Remediation Strategies in Education" course is to empower educators with the knowledge, skills, and practical tools necessary to effectively identify, assess, and address the unique learning needs of students requiring additional academic support. By the end of the course, participants will be capable of designing and implementing personalized remediation plans that facilitate academic achievement and foster an inclusive, supportive learning environment for all students.

12. Student's obligation

The student must have an important role:

1- Lecture attendance is compulsory.

2-The students must contribute in the scientific discussions in the class or teaching hall.

3-The students must know the importance of quizzes, homework, reports and exams.

It is necessary to contribute the student in presenting a scientific subject

13. Forms of teaching

There are different forms of teaching:

1-Datashow and power point.
2- White board.
3-Lectures.

14. Assessment scheme

The course degree was divided as follow:

1- 50 marks for review report and eaxam
2- 50 marks for final exam

Note: To pass in this course, students must submit a literature review report and undertake the final exam.

15. Student learning outcome:

On successful completion of the course, students will be able to:

By the end of this course, participants will be able to:

1. Understand the foundational concepts of remediation in education.
2. Identify students who need remediation through various assessment techniques.
3. Develop and implement effective remediation plans tailored to individual student needs.
4. Utilize a variety of instructional strategies to support struggling learners.
5. Evaluate the effectiveness of remediation interventions and adjust them as needed.
6. Foster a supportive and inclusive classroom environment that encourages all students to succeed.

16. Course Reading List and References:

- Evan K. Nyer (1998). Groundwater and soil remediation: practical methods and strategies.
- Chelsea, Mich. Ann Arbor Press. Alok Bhandari ... [et al.]. (2007). Remediation technologies for soils and groundwater sponsored by Remediation Technologies for Soils and Groundwater Task Committee of the Environmental Council, Environmental and Water Resources Institute (EWRI) of the American Society of Civil Engineers. Reston, Va.: American Society of Civil Engineers.
- Ellen L. Kruger, Todd A. Anderson, Joel R. Coats (1997). Phytoremediation of soil and water contaminants. Washington, DC: American Chemical Society.
- Juana B. Eweis (1998). Bioremediation principles. Boston: WCB/McGraw-Hill.
- Franklin J. Agardy and Patrick J. Sullivan (2009). Environmental engineering. Water, wastewater, soil, and groundwater treatment and remediation. 6th ed. Hoboken, N.J.: Wiley.
- Evan K. Nyer (1993). Practical techniques for groundwater and soil remediation.Boca Raton: Lewis Publishers.
- Seever, William J. Lehr, Jay H. Hyman, Marve. (2001). Handbook of Complex Environmental Remediation Problems. McGraw-Hill Professional.

17. The Topics:	Lecturer's name
1st week Introduction to remediation 2nd week Water pollution 3rd week Remediation of water pollution1 4th week Remediation of water pollution2 5th week Soil pollution 6th week Remediation of soil pollution1 7th week Remediation of soil pollution2. 8th week Bioremediation 9th week Phytoremediation 10th week Plant Species use for Phytoremediation **Please note that the syllabus is tentative and may be subject to change.**	Lecturer's name Dr. Tariq F. Sadiq (2 hrs)

18. Extra notes:

Please feel free to come and talk to me to get helpful feedback on your progress, or if you are struggling in any way.

This course syllabus provides you with the key information of research methodology. For the best chance of success, you should read it very carefully and refer to it frequently throughout the semester.

19. Peer review **پێداچوونەوەی هاوەڵ**

.