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**Department of Soil and Water**

**College of Agriculture**

**University of Salahaddin University - Erbil**

**Subject: Soil Reclamation**

**Course Book – (Year 4)**

**Lecturer's name :Muslim Rasul Arab**

**Academic Year: 2017-2018**

**Course Book**

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| **1. Course name** | **2017-2018** |
| **2. Lecturer in charge** | **Muslim Rasul Arab**  |
| **3.Department/ College** | **Soil and water\ Agriculture** |
| **4. Contact** | **muslimkhoshnaw@su.edu.krd** **Tel: oo9647504482196** |
| **5. Time (in hours) per week**  | **For example Theory: 2 \* 3** |
| **6. Office hours** | **Daily from 8:30 to 2:00** |
| **7. Course code** |  |
| **8. Teacher's academic profile**  | Name Muslim Rasul Arab Address setaqan. – Erbil – Kurdistan region, Iraq Telephone 07504538564 Nationality Iraqi /Kurd Date of birth 1 July 1981 Marital status Married E-mail muslimkhoshnaw@su.edu.krd |
| **9. Keywords** | **Soil Reclamation, Soil chemistry** |
| **10. Course overview:**  |
| **11. Course objective:**1- Limiting the soils which are not suitable for agriculture or the soils which are requiring reclamation in our country and in the world.2-Studding the methods of soil reclamation.3-Studding the problems in reclamation of soils.4- Limiting the best and economical method for reclamation of soils .5- Management of soils after reclamation.6- T o Limit the best amendments chemically and economically.7-Studding salt composition of soil and water in order to selecting the best mechanism and method for reclamation.8-Studding the chemical properties of water..9-Studding the relation between water quality and the amount of water requires for reclamation. |
| **12. Student's obligation** The student must have an important role:1. The students must contribute in the scientific discussions in the class or teaching hall.
2. 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 15 for practical part in theoretical part 10 marks for the first exam , 10 marks for second exam , 5 marks for daily quiz and preparing reports Final exam takes %60, 40 marks for theory and 20 for practical part  |
| **15. Student learning outcome:**Course outcomes should clearly relate to topics, assignments, and exams that are covered in the present course. Course outcomes should be clear, measurable, use verbs (e.g., identify, explain,..).  |
| **16. Course Reading List and References‌:**1. Al-zubaidy A.H. (1992) Land Reclamation .Univ . of Baghdad . (In Arabic).
2. Benjamin M.M. (2002) Water chemistry. Univ. of Washington.
3. Essington M. E. (2004) Soil and Water chemistry. New York.
4. FAO (2008) Salt-affected soils and their management. Rome Italy .
5. Gupta R. K. and Abrol , I. P.(1990)Reclamation and Management of alkali soils .Indian J. Agric. Sci. 60:1-16.

6-Journals of Soil Science Society of American Proceeding.7- Journals of Soil Science.8-Sumner M.E. and Ravendra N. (1998) Sodic Soils. New York, Oxford Univ. |
| **17. The Topics:** | **Lecturer's name** |
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| Meeting | Hours | Subject |
| 1st meeting | 3 hours | Conducting pot experiment for preparing saline soil and salt affected soils. |
| 2nd and 3rd meeting | 6 hours | Preparing artificial saline water to irrigate pots for Stalinization of soil. |
| 11/3 to 24/3 holiday |  |
| 4th and 5th meeting | 6 hours | Adding saline water to pots, the calculating ECe for soil extract. |
| 6th and 7th meeting | 6 hours | Irrigation of saline soil using different LF then calculating the EC for lechates, till the reclamation of saline soil. |
| 7th ,8th and 9th meeting | 9 hours | Reclamation of sodic soil, using artificial sodic soil and gypsum amendment. |
| 10th ,11th and 12 th meeting | 9 hours | Calculating some properties of the mentioned soils before and after reclamation. |
| 13th meeting | 3 | Examination. |

 | Lecturer's nameMr.Muslim.R.Arabex: (3hrs) |
| **18. Practical Topics (If there is any)** |  |
| There are three main and important skills the students should learn they are power pint , excel and world that led them dealing with computer and internet  | Lecturer's nameex: (3-4 hrs) |
| **19. Examinations:*****1. Compositional:*** 1-Definition?2-explaination?3- What are the differences between.. ?4- Fill-in the blanks?***2.******True or false type of exams:***  |
| **20. Extra notes:**  |
| **21. Peer review** .‌‌  |