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**Department of Plant Protection**

**College of Agricultural Engineering Sciences University of Salahaddin**

**Subject: Agricultural Extension**

**Course Book – (2nd Class)**

**Lecturer's name: Dr. Pshtiwan Abdullah Jalil,**

**Dr. Karzan Kazm Mahmud**

**Practical Lecturer's name: Mr. Omer Othman Hassan**

**Academic Year: 2022/2023**

**Course Book**

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| **1. Course name** | **Elective- Farm Mechanization** | |
| **2. Lecturer in charge** | **Pshtiwan Abdullah Jalil, PhD**  **Karzan Kazm Mahmud, PhD.** | |
| **3. Department/ College** | **Plant Protection Dept./Agricultural Engineering Sciences College.** | |
| **4. Contact** | **e-mails:** [**Pshtiwan.jalil@su.edu.krd**](mailto:Pshtiwan.jalil@su.edu.krd)  [**karzan.mahmud@su.edu.krd**](mailto:karzan.mahmud@su.edu.krd)  **Tel: 0750 4823304**  [**Tel: 0750**](Tel:0750) **4523086** | |
| **5. Time (in hours) per week** | **Theory: 2 and Practically 3 hrs./week** | |
| **6. Office hours** | **8:30 – 2:00 from Sunday to Thursday** | |
| **7. Course code** |  | |
| **8. Teacher's academic**  **profile** | **Personal information:**  Date of Birth: 1-1-1982  Place of Birth: Kirkuk  Nationality: Iraqi  Marital Status: Married  Sex: Male  **Education and certifications:**  **Pshtiwan Abdullah Jalil, Ph.D.** Achieved Doctor of Philosophy (Ph.D.) in Entomology/Molecular Insect Taxonomy, accomplished from Salahaddin University, Erbil, Kurdistan Region-Iraq, 2020. My dissertation title was “Taxonomic and molecular study of some flat-headed borers (Coleoptera: Buprestidae) occurring across Erbil Province, Kurdistan Region-Iraq”. I got a Master of Science in Economic Insects on Agricultural crops, entitled “Biological and Ecological Study of the small cabbage white butterfly, Pieris rapae L. (Lepidoptera: Pieridae) on the cabbage and cauliflower crops in Gradarasha Research Station, Erbil Province, Kurdistan Region-Iraq”. In College of Agricultural Engineering Sciences, Salahaddin University, Erbil, 2011.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  **Karzan Kazm Mahmud, Ph.D**.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  **Omer Othman Hassan, M. Sc.** | |
| **9. Keywords** | Extension agent, Educating farmers, Effective Extension work, Leadership, Voluntary Involvement, Farming practices, Time management, Extension Policy, Marketing | |
| **10. Course overview:**  This course guide tells you briefly what to expect from reading this material. The study of  principles of Agricultural extension are not only of academic importance, but it is the basis of our understanding and appreciation of the principles that guide information dissemination to the clientele. Studying principles of Agricultural is line studying agricultural production in its entirety. This is because the adoption of new technology involves a lot of socio-psychological processes. There are different stages of adoption, however, all hinges on the method and techniques utilized in introducing the innovations to the farmers. The course started with an understanding of the meaning of extension. This is because adequate knowledge of the meaning of agricultural extension helps to understand what the principles of Agricultural extension entail. The scope and objectives of Agricultural extension are also discussed. This is to provide the required understanding of the limitations of the agricultural extension process. | | |
| **11. Course objective:**  The primary objective of this course is to provide students with a thorough understanding of the principles, concepts, and applications of Agricultural Extension. Students will learn about their functions, types, and role in improving efficiency and productivity in farming processes. The course emphasizes the importance of the principles of starting where the people are, and why the clientele should determine their own problems and find desirable solutions to the problems.  Temporary critical thinking and problem-solving skills: Another key objective of this course is to nurture students' critical thinking and problem-solving abilities. Through lectures, discussions, and practical experiences, students will be encouraged to analyze and evaluate different communication principles and their relationship with Agricultural extension work, distinguished between Agricultural Extension and formal education. Understand the principles of agricultural extension as it relates to operational modalities of extension, and recognize the leadership roles in agricultural extension work. considering factors such as field conditions, sustainability, and local context. The principle of interest and need was also discussed and mutual trust and respect are key factors in Agricultural extension. | | |
| **12. Student's obligation**  As students in this course, it is essential to arrange attendance and regularity for all lectures. By being present and on time, students can actively involve in the learning process, participate in discussions, and benefit from class activities, and writing notes. Additionally, students should come prepared for daily quizzes and actively contribute to class discussions to enhance their conception and critical thinking skills. Also, there are many things important in the academic year such as attendance in visiting farms and completion of all tests, exams, assignments, and weekly reports. | | |
| **13. Forms of teaching**  The current teaching is essential for providing students with a comprehensive and interesting education. To give students an accomplished learning experience, we will follow these methods for teaching in our classes:  **1- PowerPoint presentations:** To give a summary of the lecture in the course, we will utilize data show presentations in the form of PowerPoint slides. The lecturer will give extra detailed information through narration, while the slides will define the practice of each lecture.  **2- Using a whiteboard:** A whiteboard is also required for teaching and explaining different topics, and certain examples.  **3- Field visits:** For the observation of modern agricultural techniques and devices in typical farms and companies in Erbil province. | | |
| **14. Assessment scheme**  Students must pass two monthly exams in practical part and one exam for theoretical part. both will be 50 marks, and the final exam is worth 50 marks. | | |
| **15. Student learning outcome:**  Through the end of this course, students should be able to:   * Demonstrate an inclusive understanding of agricultural extension basics and principles. * The Extension agent and Rural Community comprising * Successfully utilize different practice methods for agricultural operations. * Decide to select and operate suitable seeds, fertilizers, pesticides, and machinery for numerous farming tasks. * Evaluate the role of agricultural leaderships in managing agricultural projects, and solving the farmers’ problem in farming. * Analyze and suggest successful strategies for improving agricultural extension in the Kurdistan region of Iraq. | | |
| **16. Course Reading List and References‌:**   * The following textbooks and references are recommended for further reading:   1-Rolling N (1997) Extension Role in Sustainable Agricultural Development in Improving  Agricultural Extension. A reference Manual FAO Rome.  2-William SKT, Fenlay T. M. and Williams C.C (1999). A manual for Agricultural Extension  Workers in Nigeria. Les. Shyraden Press, Ibadan Nigeria.    3-World Bank (1990). Agricultural Extension: The next step. Washington D. C. De wilde J. C.  Tropical Africa. John Hopkins University Press.  4- Food and Agricultural Organisation: Improving Agricultural Extension– A reference Manual.  Rome.  5- Olayide S. O., Ogunfowora D: Essay S, Idaahaba F. (1985): Elements of Rural Economics.  Scot Allan and Co Essex. England.  6-Anderson, J.R., Feder, G. and Ganguly, S. (2006). The Rise and Fall of Training and Visit  Extension: An Asian Mini-drama with an African Epilogue. World Bank Policy Research  Working Paper 3928. Agriculture and Rural Development Department, World Bank.  Available online  <https://openknowledge.worldbank.org/bitstream/handle/10986/8447/wps3928>.  7-Diehl, D.C. and Galindo-Gonzalez, S. (2012). Get SMART: Improve Your Extension  Objectives Available online <http://edis.ifas.ufl.edu/fy1327>    8-Human Resource Management. (2013). Current trends in human resource management.  Available online:  <http://www.hrwale.com/general-hr/current-trends-in-human-resourcemanagement/>  9- State Services Commission (2008). Factors for Successful Coordination -A Framework to  Help State Agencies Coordinate Effectively. New Zealand Government. Available online  https:// [www.ssc.govt.nz/sites/all/files/Factors-publication](http://www.ssc.govt.nz/sites/all/files/Factors-publication). | | |
| **17. The Theoretical Topics:** | | **Lecturer's name** |
| **Lecture1: I**ntroduction and Terminology of Agricultural Extension.  **Lecture 2:** Meaning of Extension, and the Principles of  Agricultural Extension  **Lecture 3:** Objectives and Functions of Agricultural Extension  **Lecture 4:** Importance of Agricultural Extension  **Lecture 5:** Extension Agent, its roles and characteristics  **Lecture 6:** Leadership, types, functions, and roles in agricultural  extension programs.  **Lecture 7:** The Concepts of Extension Communication  **Lecture 8:** Elements of Agricultural Extension Communication  **Lecture 9:** Agricultural Extension Programme Management  **Lecture 10:** Approaches to management strategies of Extension  organizations  **Lecture 11:** Efficient Extension Service  **Lecture 12:** The importance of extension programs and planning  **Lecture 13:** Integrated Extension Support to Farmers  **Lecture 14:** Agricultural Extension Policy  **Field visiting:** Plant Protection; Spraying and Dusting Sprayer | | Dr. Pshtiwan Abdullah Jalil  Dr. Karzan Kazim Mahmud  Mr. Omer Othman Hassan |
| 1. **Examinations:** 2. **Definitions**, Define the following terms: client,Proactive extension program, agricultural policy, democratic leader, smallholder farmers. 3. **Explanations**, such as:  * What is the difference between an educational dimension, and a communicational dimension? * Compare between proactive, and reactive extension programs. * What is the difference between a heterogeneous and a homogeneous audience? * What are the factors to be considered when choosing a pesticide? * What are the disadvantages of using Agricultural methods in pest control management? * Explain the concept and theories of leadership. * Numerate the types of leadership with certain examples. | | |
| 1. **Extra notes:**  * When an exam postponed by a student, whatever be the reason, he/she has to do the exam within one week. It is the student's responsibility to contact the subject lecturer and the department presidency with the frame time to rearrange for an alternative exam. Failure to do so in a timely way may result in an uncounted grade for the missed exam. | | |
| 1. **Peer review پێداچوونه‌وه‌ی هاوه‌ڵ**   I thereby approve that the course is comprehensive and cover all aspects of the course. The subject is arranged sequentially which enables the students to learn gradually step by step.  Name:  Degree:  Specialty:  Signed:  Date: | | |