



Department of Plant Protection

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

Subject: Principles of Plant Protection

Course Book – (1st Class)

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

**Practical Lecturer's name: Mr. Muhammad Jamal &
Waran Nuraddin**

Academic Year: 2023-2024

Course Book

1. Course name	Principles of Plant Protection
2. Lecturer in charge	Pshtiwan Abdullah Jalil, PhD Majeed Hassan Mustafa, PhD.
3. Department/ College	Plant Protection Dept./Agricultural Engineering Sciences College.
4. Contact	e-mails: Pshtiwan.jalil@su.edu.krd majeed.mustafa@su.edu.krd Tel: 0750 4823304 Tel: 0750 4439693
5. Time (in hours) per week	Theory: 2 and Practically 2 hrs./week
6. Office hours	8:30 – 2:00 from Sunday to Thursday
7. Course code	
8. Teacher's academic profile	<p>Personal information: Date of Birth: 1-1-1982 Place of Birth: Kirkuk Nationality: Iraqi Marital Status: Married Sex: Male</p> <p>Education and certifications: Pshtiwan Abdullah Jalil, Ph.D. Achieved Doctor of Philosophy (Ph.D.) in Entomology/ Insect Molecular & 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 of Agricultural crops, entitled “Biological and Ecological Study of the small cabbage white butterfly, <i>Pieris rapae</i> 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. *****</p> <p>Majeed Hassan Mustafa</p> <p>*****</p> <p>Muhammed Jamal Jameel, M. Sc.</p>
9. Keywords	Principles, Plant Protection, Entomology, Pathology, Pest, Management, weeds, control, Agricultural products, Pesticide

10. Course overview:

This course guide tells you briefly what to expect from reading this material. The study of principles of Plant Protection 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 Plant case. Detecting the causes of plant diseases as well as the causes of tree and plant problems in general. This is because the adoption of new technology involves a lot of management techniques and methods of control. There are different stages of adoption, however, all hinge on the method and techniques utilized in introducing the innovations to the farmers. The course started with an understanding of the meaning of plant protection. This is because adequate knowledge of the meaning of your department helps to understand what the principles of Plant Protection entail. The scope and objectives of this subject are also discussed. This is to provide the required understanding of the limitations and practices of protecting methods for plant problems.

11. Course objective:

The main objective of this course is to provide students with a full understanding of the principles, concepts, and applications of principles of plant protection. Students will learn about this subject's aspects, plant habits, and pests and pathogens definition to improve the efficiency of management agents and farming productivity. The course emphasizes the importance of the principles of starting where the graduates are, and why the farmers should determine their problems and find the required results for the crop problems. Understand the principles of Plant Protection as it relates to operational modalities of the Plant protection department, and recognize the specialist roles in plant protection efforts. considering factors such as field conditions, pest definition, and successful protection way. The principle of interest and need was also discussed and mutual trust and respect are key factors in this subject.

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 be actively involved 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, and assignments.

13. Forms of teaching

The modern teaching is essential for providing students with a comprehensive and interesting education. To give students a proficient 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 the lectures.

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 protection techniques and devices in typical farms and companies in Erbil province.

14. Assessment scheme

The students should pass two monthly exams for the practical part and one exam for the theoretical part. both will be worth 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 sciences basics and principles.
- The Protection agent and its practices in agricultural farms.
- Successfully utilize different practice methods for plant protection operations.
- Decide to select and operate suitable seeds, fertilizers, pesticides, and machinery for numerous farming tasks.
- Evaluate the role of Plant protection leadership in managing infestation plant diseases, and insects and treating the farmers' problems in agriculture.
- Analyze and suggest successful strategies for improving modern techniques and methods for plant protection in the Kurdistan region.

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.hrware.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](https://www.ssc.govt.nz/sites/all/files/Factors-publication).

17. The Theoretical Topics:

Lecturer's name

Lecture 1: Introduction of the principles of Plant Protection.

Dr. Pshtiwan Abdullah Jalil

Lecture 2: Objectives and Functions of Plant Protection.

Lecture 3: Agricultural pests and their classification

Lecture 4: Determining and diagnosing Plant infections by disease and insect pests.

Lecture 5: The Characteristics of Insects and their Classification.

Dr. Majeed Hassan Mustafa

Lecture 6: Insect Damage

Lecture 7: Methods of management and control of insect problems.

Mr. Mohammed Jamal

Lecture 8:

Lecture 9:

Lecture 10:

Lecture 11:

Lecture 12:

Lecture 13:

Lecture 14:

Field visiting: Plant Protection; Spraying and Dusting Sprayer

18. Examinations:

- Definitions,** Define the following terms: Pest, Biological control, agricultural policy, weeds, Sanitation, Piercing and sucking insects.

2. Enumeration

3. Explanations

- What is the difference between an Agricultural method, and loyal control methods?
- What is the advantage of biological control?
- What are the factors to be considered when choosing a pesticide?
- What are the disadvantages of using cultural methods in pest control management?
- Explain the concept and function of Plant Protection.
- Numerate the types of Pest management methods.

19. 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.

20. Peer review

پیداچونہوہی ہاوہل

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: