Department of Filed Crops

College of Agriculture Engineering Sciences

University of Salahaddin

Subject: Technology of Crop Diseases Control

Course Book – *Thrirth Class*

Lecturer's name Ashna Othman Mhammad kareem

Lecturer's name Nask Sherzad Salh

Academic Year: 2023-2024

Course Book

1. Course name	Flied Crop Diseases
2. Lecturer in charge	Dr.Ashna Othman mhammmad MSc. Nask Sherzad Salh
3. Department/ College	Plant Protection/ Agriculture
4. Contact	e-mail: ashna.mohammad@su.edu.krd Tel: (optional)07504817521 e-mail: nask.salh@su.edu.krd . Tel: 009647507176155
5. Time (in hours) per week	Theory: 2 Practical : 2
6. Office hours	
7. Course code	
8. Teacher's academic profile	Date of Birth: 16 November 1981 Place of Birth: hawler Nationality: Iraqi Education: *B.Sc., Agriculture Plant Protection, University of Salahaddin-Erbil, 2003-2004) *M.Sc., Agriculture Science/Plant Protection, University of Salahaddin-Erbil, 23 August 2011 *PHD,. Agriculture Science/Plant Protection, University of Salahaddin-Erbil, 8 November 2023
9. Keywords	Wheat and Barley diseases, Rice diseases, Corn diseases, Pea diseases, and Cotton Disease.

10. Course overview:

- Field crops make a contribution to human diet as the key source of nutrition. Most of prevalent plant pathogen attack these crops wherever it is grown causing heavily Annie losses . Control programs for these pathogens request studying and diagnosis of disease cause , depending up on symptoms and microscopic features. Disease cycle and their development. The main aim of the course is to give the students opportunity to recognise the diseases in field crops commonly grown in our country, to learn the methods used in the diagnosis, detection and control of these diseases and to realize solving the problem faced on this matter and reporting the results obtained.

General Topics :Field crop production and field crop diseases, How to identify and diagnose field crop diseases including those caused by bacteria, nematodes, oomycetes, and fungi.

11. Course objective:

Identify several common diseases of Wheat and Barley , Rice, Corn, Pea, Cotton. on the basis of symptoms.

Introduce and illustrate the major groups of organisms that cause plant diseases

12. Student's obligation

1- all lectures quizzes at the beginning of laboratory periods.
2- Plant Disease Collection .
3- Practical Laboratory Examination.
4- Final Examination.

13. Forms of teaching

Teaching methods are, using data show ways, Power Point, whiteboard, giving hand notes, video reports

14. Assessment scheme

Grade distribution of 15%

Test	**Mark 15%**
1st Exam	10
2st Exam	10
Quiz	2
Seminar	3
Total	15

Grade distribution of 35%

Test	**Mark 35%**
1st Exam	15
2st Exam	15
Quiz	5
Total	15

Final examination out of (50%)

Monthly exam	**Mark 50%**
Theoretical exam	50
Practical exam	
Total grade	50

15. Student learning outcome:

To develop an understanding and expertise in:
1. societal importance of plant diseases and plant health;
2. diagnosis of plant diseases and identification of plant pathogens;
3. causes of representative diseases and pathogens; and plant health and disease management.

16. Course Reading List and References:

Main reference	Useful references	Magazines and review (Internet
1. Robert F.Nyvall. 1999. Field Crop Diseases (Third Edition)	1	Phytopathology
2. Gunnell , P.S., and Webster , R.K. 1988. Crown and root rot of cultivated wild rice in Call	2	Plant diseases
3. Agarwal , K., Sharma, J., Singh, T., and Singh , D. 1987 . Histopathology of Alternaria tenuis Infected black – pointed Kernels of wheat . Bot. Bull. Academia Sinica 28:123130	3	Annual Rev. Plant Pathology
4. Agrios , G.N. (2005) . Plant Pathology . 5th ed . Academic press . p.952	4	Plant Pathology

17. The Topics:	Lecturer's name
1- Importance of plant diseases 2- Diseases caused by biotic factors and management 3- Wheat and Barley diseases : Rust : stem rust ,leaf rust , stripe rust. 4- Smut : Loose smut , common bunt (stinking smut), dwarf bunt. 5- Exam 6- Powdery mildew , net blotch , spot blotch. 7- Fusarium seedling blight (fusarium crown rot) Wheat streak mosaic virus (wsmv) , Barley yellow dwarf virus (BYDV) . 8- Corn disease: corn smut , head corn smuts . Stewart's wilt Disease of corn, bacterial stalk rot.common rust ,corn leaf blight, fusarium ear rot . 9- Rice diseases :rotten neck blast , Seedling blight, Brown spot, Sheath blight, crown rot. 10- Exam1 11- Pea diseases: powdery mildew , downy mildew , seedling blight , bacterial blight ,	Lecturer's name: Dr.Ashna othman (2 hrs)

12- Fusarium wlit , damping off , stem and root rot , pea seed borne. 13- Bean yellow mosaic virus, ascochyta, septoria leaf blotch. 14- Cotton Disease: Verticillium Wlit, Root rot , Fusarium Wlit, Bacterial Blight. 15 - Sunflowers diseases: Alternaria leaf blight , Downy mildew , Phoma blight , Rhizopus Head Rot , White Mold,	
18. Practical Topics (If there is any)	
1. Introduction (Laboratory Safety Rules) 2. Cereal diseases - The Rusts -The Smuts -Powdery mildew - Spot blotch (Foot Rot) – Septoria – Net blotch – Wheat streak mosaic virus (WSMV) – Barley yellow dwarf virus (BYDV) – Root Lesion Nematodes 3- Rice diseases Rice blast - Seedling blight (different fungi) - Brown spot -Sheath blight 4- Corn diseases Common smut - Head smut -Southern corn leaf blight Common corn rust -Fusarium kernel or ear rot -Stewart´s bacterial disease -1Exam 5-Cotton diseases -Verticillium wilt - Root rot - Fusarium wilt- Pythium damping off -Bacterial blight 6-Pea diseases Ascochyta - Powdery mildew -Damping off -Stem and root rot Fusarium wilt -Seedborne mosic virus 7-Soybean diseases Rhizoctonia root rot -Septoria brown spot - Downy mildew Powdery mildew - Cyst nematode -Bacterial blight -Soybean Mosaic Virus -2nd Exam Visiting different fields and collecting diseased plant samples to identify in the lap 19. Examinations: 1. Definitions 2. Write the scientific name of? 3. What are the differences between:	Lecturer's name: MSc. Nask Sherzad Salh
19. Examinations: 1- Define the following? 2- Complete these sentences. 3- Make differences between these.	

4- True or false type of exams:

20. Extra notes:

1- Quizzes: All quizzes require integration of the materials presented in lectures and in laboratories. There will be all lectures and quizzes at the beginning of laboratory periods.

2- Plant Disease Collection: Each student has the opportunity to prepare and identify a collection of the course period.

3- Practical Laboratory Examination: A laboratory examination will be held during the lab period. This examination may utilize diseased plant specimens, microscope slides, photographs of pathogens and diseases, PowerPoint presentations, and/or other materials. Questions may include material from both laboratories and lectures.

4- Final Examination – The final exam is worth 50% of your final mark and will take (i.e., all material covered in the course).

21. Peer review پێداچوونەوەی هاوەڵ

This course book has to be reviewed and signed by a peer. The peer approves the contents of your course book by writing few sentences in this section.

(A peer is person who has enough knowledge about the subject you are teaching, he/she has to be a professor, assistant professor, a lecturer or an expert in the field of your subject).

ئەم کۆرسبووکە دەبێت لەلایەن هاوەڵێکی ئەکادیمیەوە سەیر بکرێت و ناوەڕۆکی بابەتەکانی کۆرسەکە پەسەند بکات و جەند ووشەیەک بنووسێت لەسەر شیاوی ناوەڕۆکی کۆرسەکە و واژووی لەسەر بکات.

هاوەڵ ئەو کەسەیە کە زانیاری هەبێت لەسەر کۆرسەکە و دەبیت پلەی زانستی لە مامۆستا کەمتر نەبێت.