

## **Department of Plant Protection**

**College of Agriculture** 

**University of Salahaddin** 

**Subject: Horticulture Diseases** 

**Course Book – (Year 4)** 

Hasan Hussein Ali/ Asst. Prof.

Academic Year: 2017/2018

# **Course Book**

| 1. Course name                       | Orchard & Veg. Diseases                                       |
|--------------------------------------|---|
| 2. Lecturer in charge                | Hasan Hussein Ali/ Asst. Prof.                                |
| 3. Department/ College               | Plant Protection/ Agriculture                                 |
| 4. Contact                           | e-mail: hasanhusein292@yahoo.com                              |
|                                      | Tel: 00 964 750 339 7130                                      |
| 5. Time (in hours) per week          | For example Theory: 2   |
|                                      | Practical: 3  |
| 6. Office hours                      | Sunday to Wednesday   |
| 7. Course code 8. Teacher's academic | TI TI 'AI'' (D.C.ON (D.C.I.)                                  |
| profile                              | Hasan Hussein Ali is an asst. Prof. of Plant Pathology at the |
| profile                              | College of Agriculture, Salahaddin University, in the         |
|                                      | majority of his 40-year professional career. He graduated     |
|                                      | with first Class Honours in Plant Protection/Collage of       |
|                                      | Agriculture and Forestry from university of Mosul in          |
|                                      | 1983, ranking second in a class of around 57 graduates. In    |
|                                      | 1988 he was awarded a master degree in Plant Pathology/       |
|                                      | Collage of Agriculture and Forestry from university of        |
|                                      | Mosul, he was started teaching as an Asst. lecturer from      |
|                                      |   |
|                                      | 1983–1990. And in 1990 he was promotion to Lecturer, as       |
|                                      | well as he is an Asst. Prof. since 1996. He got many          |
|                                      | awarded by Minster of Agriculture in Iraq and Chancellor      |
|                                      | and President of Mosul Uni. He published around 27            |
|                                      | technical papers in journals, two of them were represented    |
|                                      | as first recorded in Iraq. He has been teaching some          |
|                                      | different subjects to Undergrad such as Mycology,             |
|                                      | Nematology, Plant Pathology, Field Crop Diseases, Orchard     |
|                                      | & Veg. Diseases, Horticulture Diseases and post Harvest       |
|                                      |   |
|                                      | Diseases, and for Postgrad Seed Pathology, Root Diseases,     |
|                                      | Advanced Mycology, Advanced Nematology and Advanced           |
|                                      | Plant Pathology, He also delivered around 8 keynote           |
|                                      | seminars and presentations at local conferences. He           |
|                                      | supervised to so many Students in the final year of           |
|                                      | Undergrad; he also supervised to successful completion of     |
|                                      | 5 Master students at the University of Salahaddin. He         |
|                                      | organized, participated and contributed to a number of        |
|                                      | organized, participated and contributed to a number of        |

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|             | higher education conferences in Iraq and Kurdistan Reign. In addition to his academic posts. |
|-------------|--|
| 9. Keywords | Orchard Diseases, Vegetable Diseases Symptoms, Control, Pathogen Causes                      |

#### 10. Course overview:

Considering the prevalence of various kinds of pathological that caused that affect Fruits Trees and Vegetables at Kurdistan reign, it is necessary to find ways to control these diseases through recognize and diagnosis them and then provide particular facilities to control them via cooperate with many companies around the word to find pesticides needed to control.

It comes through the identification of these problems and diagnoses them to reach the goal which is how to increase the products in both quality and quantity.

#### 11. Course objective:

After successfully completing this course, you should be able to:

- Describe a range of pathological problems that affect Fruits Trees and Vegetables.
- Describe symptoms of a range of diseases that affect plants.
- Describe disease life cycles and explain how this knowledge can be applied in disease control.
- Explain the methods used to control diseases
- Demonstrate a comprehensive knowledge of a particular Horticulture (Fruits and Vegetables.
- Identify and describe a range of common pathogens that affect Fruits Trees and Vegetables.
- Identify and study of the disease causes (Pathogens) such as Fungi, Viroid, Nematodes and Bacteria.

#### 12. Student's obligation

Weekly quizzes, attendances, 2 exams

#### 13. Forms of teaching

Data show, Handouts, Power Point, Whiteboard

#### 14. Assessment scheme

Students are evaluated during the semester by:

Short exams (quizzes)2 exams20%

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| • | Subtotal total                 | 25% |
|---|--------------------------------|-----|
| • | Final exams                    | 40% |
| • | Total for the theoretical part | 65% |

• The practical part is given 35 marks in total including exams and final exams

## 15. Student learning outcome:

Students are expected to learn the significant of the most common diseases that effects and attack Fruits Trees and Vegetable Crops in Kurdistan Reign and identify the Pathogens which causes these diseases such as (Fungi, Viroid, Nematodes and Bacteria throughout the life cycle, classification and form.

Finally the students will learn how to protect plants from the diseases and how to treat control them and to indentify on the most common pesticides that used to control of diseases.

## **16. Course Reading List and References:**

**Suggested References** 

- Plant pathology, 5<sup>th</sup> edition. (2005), G.N. Agrios.
- Diseases of fruits and vegetables, volume II, 2004. Edition by S.A.M.H Naqvi.
- Diseases of Fruit Crops in Australia. (2009). By Tony Cooke, Denis Persley and Susan House.

| 17. The Topics: (Subjects Covered) | Week   |
|------------------------------------|--------|
| Apple and Pear diseases I          | Week 1 |
| Apple and Pear diseases II         | Week 2 |
| Stone fruit Diseases I             | Week 3 |
| Stone fruit Diseases II            | Week 4 |
| Citrus Diseases.                   | Week 5 |
| Olive and Fig Diseases.            | Week 6 |
| Pomegranate and Walnut             | Week 7 |

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|--|--------------|
| Vegetable Diseases : Tomato & Potato Diseases I  | Week 8       |
| Tomato & Potato Diseases II  | Week 9       |
| Cucurbit Diseases: Cucumber Diseases   | Week 10      |
| Watermelon Diseases  | Week 11      |
| Exam + Crucifer Diseases   | Week 12      |
| Legume Diseases  | Week 13      |
| Onions & Garlic Diseases   | Week 14      |
| Revision   | Week 15      |
| 18. Practical Topics (If there is any)   |              |
| <ul> <li>Identify of Symptoms and Signs of the diseases.</li> <li>Identify of the Pathogens which cause the diseases.</li> <li>Methods of how to control the diseases</li> </ul> | 3 Hours labs |
| 19. Examinations:  Define the following terms:   |              |
| Explain the following such as: Symptoms of the diseases  |              |

Control of the diseases

Mention the scientific name of the pathogen diseases

Compare between

Benefits of use: Copper sulphate

Early sowing

Draw life cycle of: fire blight of apple

#### Extra notes

## 21. Peer review