Course Description Form

1. Course Name: Fruit tree diseases

2. Course Code: FRPA422

3. Semester / Year: Second semester/fourth stage 2024-2025

4. Description Preparation Date: 1/2/2025

5. Available Attendance Forms: Attendance-online

6. Number of Credit Hours (Total) / Number of Units (Total)

75 hours 3.5 units

7. Course administrator's name (mention all, if more than one name)

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8. Course Objectives

- Introduce students to the most common fruit diseases that affect fruit crops, and identify their symptoms and factors of spread.
- Provide an understanding of the basic biology and ecology of fruit diseases, including environmental factors that influence the growth of fungi and pathogenic bacteria.
- Students learned to diagnose fruit diseases and analyze their causative factors through appropriate laboratory and field tests.
- Study means and methods of biological and chemical prevention and control of fruit diseases, including the use of fungicides and bacteria and advanced agricultural techniques.
- Analyze the economic and environmental impacts of fruit diseases, and study sustainable and preventive management methods to reduce their impact.
- Enhancing students' skills in planning and implementing field experiments and scientific studies to treat and control fruit diseases.
- Encouraging students to interact with recent literature and research in the field of fruit diseases and contribute to developing innovative and effective solutions to address current challenges in this field.

9. Teaching and Learning Strategies

Brainstorming Teamwork Discussion
Discovery learning Problem solving or problem-based learning
E-Learning

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical	**a1** The student knows the science of pathology and explains its basic within the plant protection sciences.	**Introduction to the Science of Fr Pathology:** Concept, key topics, and impor plant protection.	Interactive lecture, brains dialogue and discussion, self-le	Semester exam 1, final exam
	3 practical	**b1** The student distinguishes between fruit tree disease pathogens (fungal, viral, nematode, and abiotic causes) morphological and bio characteristics.	**Classification of Fruit Tree Di Pathogens:** Morphological and biochemic characteristics to distinguish bet pathogens.	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
2	2 Theoretical	**a1:** Types of fruit tree disease pathogen and non-living.	**Introduction to Fruit Tree Pathogens:** Differentiating between pa organisms and environmental factors	Interactive lecture, brains dialogue and discussion, self-le	Semester exam 1, final exam
	3 practical	**b2** Methods of collecting samples from f and methods of control.	**Identifying Key Symptoms a Cycles, and Control Methods fo Disease Pathogens.**	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
3	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency d Enhancing students' ability to use co and the Internet	Citrus tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Semester exam 1, final exam
	3 practical	b2 Identifying the most important sy and the life cycle, methods of co citrus disease pathogens, examining of the leaves, fruits and roots of the p identifying the best means of control .	Citrus tree diseases	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
4	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency disea	Diseases of pistachio trees	Interactive lecture, brains dialogue and discussion, self-le	Semester test 1, final test, report
	3 practical	b2 Identify the most important sympt the life cycle, methods of control for disease pathogens, examine sample leaves, fruits and roots of the plant, a about the best means of control.	Diseases of pistachio trees	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
5	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency dis peach and apricot trees.	stone-stone tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Semester test 1, final test, report
	3 practical	b2 Identifying the most important sy and the life cycle, methods of contro pathogens of stone-stone tree examining samples of the leaves, f roots of the plant, and identifying means of control.	stone-stone tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Semester test 1, final test, report
6	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency disea	Apple tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Short test, final test
	3 practical	b2 Identifying the most important sy and the life cycle, methods of co apple disease pathogens, examining of the leaves, fruits and roots of the p identifying the best means of contro and nutrient deficiency diseases	Apple tree diseases	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
7	2 Theoretical	b2 Identifying the most important sy and the life cycle, methods of contro disease pathogens, examining sampl leaves, fruits and roots of the pl identifying the best means of control	Grape tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Semester exam 2, final exam
	3 practical	B2: Diseases caused by fungi, ca iruses, and element deficiency dentifying the most important sympt fe cycle, methods of controlling pom isease pathogens, examining sample eaves, fruits and roots of the pl dentifying the best means of control.	Grape tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Semester exam 2, final exam
8	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency disea	Olive tree tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Semester exam 2, final exam

	3 practical	b2 Identifying the most important sy nd the life cycle, methods of controll isease pathogens, examining sample eaves, fruits and roots of the pl dentifying the best means of control.	Olive tree tree diseases	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
9	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency disea	Fig tree tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Semester exam 2, final exam
	3 practical	b2 Identifying the most important sy and the life cycle, methods of contro disease pathogens, examining sampl leaves, fruits and roots of the pl identifying the best means of control	Fig tree tree diseases	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
100	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency disea	Diseases of pomegranate trees	Interactive lecture, brains dialogue and discussion, self-le	Semester test2
	3 practical	b2 Identifying the most important sy and the life cycle, methods of co pomegranate disease pathogens, ex samples of the leaves, fruits and roo plant, and identifying the best n control.	Diseases of pomegranate trees	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
11	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency disea	Palm tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Final test
	3 practical	b2 Identifying the most important sy and the life cycle, methods of co Palm disease pathogens, examining of the leaves, fruits and roots of the p identifying the best means of control	Palm tree diseases	Interactive lecture, brains dialogue and discussion, self-le	Direct drawing and homework
12	2 Theoretical	B2: Diseases caused by fungi, ca viruses, and nutrient deficiency disea	seases of fruit tree nurseries	Interactive lecture, brains dialogue and discussion, self-le	Final test
	3 practical	B2: Identifying the most important sy and life cycle, methods of co pathogens of nursery diseases, ex samples of leaves, fruits and roots o and identifying the best means of con	iseases of fruit tree nurseries	Interactive lecture, brains dialogue and discussion, self-le	A short practical test
13	2 Theoretical	d2: Training on management sk presentation of topics related to f diseases	eport and discussion	Interactive lecture, brains dialogue and discussion, self-le	a report
	3 practical	d2 runs discussion panels on the e importance of post-ablative diseases	eport and discussion	Interactive lecture, brains dialogue and discussion, self-le	a report
14	2 Theoretical	cC1 Field visit to fruit tree nurseries	olve the problem	Interactive lecture, brains dialogue and discussion, self-le	a report
	3 practical	e1 Practical applications of m controlling fruit tree diseases	olve the problem	Interactive lecture, brains dialogue and discussion, self-le	Short practical test3

11.Course Evaluation

	Calendar methods	date	mark	wight
	Short test (1) Quiz	the sixth week	2	2
	Short test (2) Quiz	The fourteenth week	2	2
	Semester test (1)	the sixth week	10	10
	Semester test (2)	The eleventh week is difficult	10	10
	Final theoretical test	Final semester exams	40	40
	Report and discussion	The fifteenth week	5	5
	Report and discussion	The third and fifth week	5	5
	Short practical test (1) Quiz	The first week	2	2
	Short practical test (2) Quiz	fourth week	2	2

	Short practical test (3) Quiz	The fourteenth week	2	2
	Final practical test	Final semester exams	20	20
	the total	100	100	100

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Plant Diseases, George Agrios, translated by Mahmoud Musa Abu Ar Academic library.
Recommended books and references (scientific journals, reports...)	S.A.M.H. Naqvi(2006)Diseases of Fruits and Vegetables Diagnosis and Management Volume I Randy C. Ploetz (2003)Diseases of Tropical Fruit Crops
Electronic References, Websites	1https://www.apsnet.org/Pages/default.aspx 2-https://www.google.com/?hl=ar

theoretical subject teacher

Assistant Professor Dr.. Bassam Yahya Ibrahim

practical subject teacher

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