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| Form: Course Syllabus | Form Number | EXC-01-02-02A |
| | Issue Number and Date | 2963/2022/24/3/2 5/12/2022 |
| | Number and Date of Revision or Modification | 2/(10/12/2023) |
| | Deans Council Approval Decision Number | 50/2023 |
| | The Date of the Deans Council Approval Decision | 26/12/2023 |
| | Number of Pages | 06 |

17. Course Coordinator:

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|-----|---|--|--|
| 1. | Course title | Plant Fungal Diseases | |
| 2. | Course number | (606222) | |
| 3. | Credit hours | 3 | |
| | Contact hours (theory, practical) | 2 hour lectures, 3 hours' lab. / week | |
| 4. | Prerequisites/corequisites | General mycology, plant disease course and principle of plant protection | |
| 5. | Program title | Plant Protection | |
| 6. | Program code | | |
| 7. | Awarding institution | The University of Jordan | |
| 8. | School | School of Agriculture | |
| 9. | Department | Department of Plant Protection | |
| 10. | Course level | 2 ^{ed} and 3 ^{red} | |
| 11. | Year of study and semester (s) | First Semester 2023/2024 | |
| 12. | Other department (s) involved in teaching the course | | |
| 13. | Main teaching language | English | |
| 14. | Delivery method | <input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online | |
| 15. | Online platforms(s) | <input type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom | |
| | | <input type="checkbox"/> Others..... | |
| 16. | Issuing/Revision Date | 2/10/2024 | |



Office numbers, office hours, phone numbers, and email addresses should be listed.

Office number: 181 Sunday 2-3 Tuesday 1-2.

Phone number: 0777714813

Email: m.tahat@ju.edu.jo

monthertahat@gmail.com

18. Other instructors:

Name: Eng. Wafa Nasir, Lab instructor

Office number: 40

Phone number: 22521

Email: W.nasir@ju.edu.jo

Contact hours: Monday 11-3

19. Course Description:

As stated in the approved study plant. The course aimed to introduce the symptoms and signs, pathogen biology, disease management, and scientific, economic and social significance of major plant fungal diseases in Jordan and other countries around.

20. Course aims and outcomes:**- Aims:**

- 1-To understand the disease development of vegetables, fruit trees, field crops and ornamentals.
- 2-To understand the life cycle of fungal pathogens of horticultural crops.
- 3-To understand the different factors regarding epidemiology, disease spread and favourable environmental conditions of fungal diseases.

B- Students Learning Outcomes (SLOs):

Upon successful completion of this course, students will be able to:

| PLOs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| SLOs of the course | | | | | | | | | |
| 1.Know Plant fungal pathogens (causal agents, structures, lifecycle) | √ | | √ | | | | | | |
| 2.Understand the different factors regarding epidemiology, disease spread and favorable environmental | √ | | | | | | | | |
| 3.Understand the diseases symptoms, identifications, and isolations | √ | | | | | | | | |
| 4. Differentiate between fungal diseases and other micro-organisms diseases causal agents. | | √ | | | | | | | |
| 5. Realize the different components of disease development. | | | | | √ | √ | | | |
| 6. Recognize factors regarding the disease epidemiology. | | √ | | | | | | | |
| 7. Integrate different approaches for fungal disease management in the field. | | | | √ | √ | | | | |
| 8. Know the risk of fungal diseases distributions. | | √ | √ | √ | √ | | | | |
| 9. Evaluate diseases control and management methods. | | | | √ | √ | √ | | | |
| 10.Work within a team | | | | | | | √ | √ | √ |

PLOS

After the successful completion of this program student should be able to:

1. Demonstrate a depth in understanding of the fundamental knowledge and skills required in the field of Plant Protection sciences, which include weeds, insects, mites, fungi, bacteria, viruses and nematodes.
2. Identify and distinguish harmful and beneficial weeds, insects, mites, fungi, bacteria, and nematodes.
3. Predict the outbreaks of pests and determine the level of infection based on skills gained in the field of Plant Protection Sciences.
4. Recognize different techniques (biological, chemical, cultural, and physical) in pest control.
5. Design and develop appropriate management strategies of pests in an environmentally friendly manner.
6. Participate efficiently in agricultural projects in the field of pest management in various public and private sectors in Jordan and worldwide.
7. Communicate effectively in written, oral, and graphical forms.
8. Employ the gained skills in communication and serving different communities.
9. Commit to ethics and compliance responsibilities for being an agricultural engineer, especially with regard to agricultural sector, environment and society.

**21. Topic Outline and Schedule:**

| Week | Lecture | Topic | Intended Learning Outcome | Learning Methods (Face to Face/Blended/ Fully Online) | Platform | Synchronous / Asynchronous Lecturing | Evaluation Methods | Resources |
|------|---------|--|---------------------------|---|----------|--------------------------------------|--------------------|--|
| 1 | 1.1 | Introduction:The Concept of Plant Diseases | 4 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 1.2 | | | | | | | |
| 2 | 2.1 | Introduction:The Concept of Plant Diseases | 4 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 2.2 | | | | | | | |
| 3 | 3.1 | Wilt diseases | 1.2. 3. | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 3.2 | | | | | | | |
| 4 | 4.1 | Rot diseases | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 4.2 | | | | | | | |
| 5 | 5.1 | Powdery mildew | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 5.2 | | | | | | | |
| 6 | 6.1 | Powdery mildew | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles Study of Insects |
| | 6.2 | | | | | | | |



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|----|------|----------------------|-------------|--------------|--|-------------|------------------|--|
| 7 | 7.1 | Rust diseases | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 7.2 | | | | | | | |
| 8 | 8.1 | Smut diseases | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 8.2 | | | | | | | |
| 9 | 9.1 | Damping off diseases | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 9.2 | | | | | | | |
| 10 | 10.1 | Blight diseases | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 10.2 | | | | | | | |
| 11 | 11.1 | Downy mildew | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 11.2 | | | | | | | |
| 12 | 12.1 | Leaf spot diseases | 1.2.3.4.9 | Face to Face | | Synchronous | | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 12.2 | | | | | | | |
| 13 | 13.1 | Scab diseases | 1.2.3.4.6.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 13.2 | | | | | | | |
| 14 | 14.1 | Canker diseases | 1.2.3.4.5 | Face to Face | | Synchronous | Exams or | Plant Pathology |



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|----|------|-------------------------|-----------|--------------|--|-------------|---------------------|---|
| | 14.2 | | | | | | quizzes | 2005 , Principles of plant diseases, scientific articles |
| 15 | 15.1 | Anthracnose diseases | 1.2.3.4.9 | Face to Face | | Synchronous | Exams or quizzes | Plant Pathology 2005 , Principles of plant diseases, scientific articles |
| | 15.2 | | | | | | | |

22. Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

| Evaluation Activity | Mark | Topic(s) | SLOs | Period (Week) |
|----------------------|------|--------------------------------|--------------------|--|
| First Lab. Exam | 10% | Lab material | 2.3.4.7.8.9 | 28/11/2024 |
| Midterm Exam | 20% | Lecture material | 1.4.7.8.9 | 29/11/2024 |
| Oral and assay exams | 5% | Either lab or lecture material | 2.3.4. 5.7.8.9, 10 | Various dates |
| Presentation | 10% | Either lab or lecture material | 2.3.4. 5.7.8.9, 10 | Various dates |
| Participation | 5% | Either lab or lecture material | 2.3.4. 5.7.8.9, 10 | Various dates |
| Final Lab. Exam | 20% | Lab material | 1-9 | 12/1/2025 |
| Final Exam | 30% | All the lecture material | 1-9 | As announced by Registration Department |

23. Course Requirements

Class room, laboratory with stereomicroscopes

24. Course Policies:

A- Attendance policies:

Students should attend all lectures one-line for both course parts.

B- Absences from exams and handing in assignments on time:

JU roles will apply

C- Health and safety procedures:

All lectures will be online

D- Honesty policy regarding cheating, plagiarism, misbehavior:

The head of department will be announce in case of misbehaviour.

**25. References:**

A

Required book (s), assigned reading and audio-visuals:

A- Required book(s), assigned reading and audio-visuals:

1- Kumar, Plant Pathogens & Principles Of Plant Pathology, 2016, PP376

2-Agrios, N, 2005. Plant Pathology. Academic Press. 5th Edition

-Recommended books, materials, and media:

3-Allyn A. C. 2000. Diseases of tropical and subtropical fruits and nuts. Hafner Press, New York, pp. 317.

4- Dixon G.2002.Vegetable crop diseases. Macmillan publishers Ltd., London. PP. 404

26. Additional information:

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| Name of Course Coordinator: Dr.Monther Tahat | Signature: _____ | Date: 2/10/2024 |
| Head of Curriculum Committee/Department: ----- | Signature: ----- | --- |
| Head of Department: ----- | Signature: ----- | - |
| Head of Curriculum Committee/Faculty: ----- | Signature: ----- | - |
| Dean: ----- | Signature: ----- | |