The University of Jordan Department: Plant Protection

Faculty: Agriculture 2013/2014, Second semester.

Plant Fungal Diseases, Course No. 606222

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| --- | --- | --- | --- | --- | --- |
| Credit hours | 3 | Level | 2 | Pre-requisite | 0606221 |
| Coordinator/ Lecturer | Prof. Dr.Ahmad Mohamad Almomany | Office  number | 258 | Office phone | 22513 |
| Course website | none | E-mail | momanyah@ju.edu.jo | Place | Aleshbyli |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Office hours | | | | | |
| Day/Time | Sunday | Monday | Tuesday | Wednesday | Thursday |
|  | 11-12 | 11-12 | 11-12 | 11-12 | 11-12 |

Course Description

Study of the most important diseases of vegetables, legumes, and cereals. Diseases of grapes, olives, stone fruits and pome fruits will be also covered. This includes the etiology of causal agents, symptoms and pathogenesis.

Learning Objectives

The main objectives of the course are:

1-Understand the disease development of vegetables, fruit trees, field crops and ornamentals.

2-Understand the life cycle of fungal pathogens of horticultural crops.

3-Understand the different factors regarding epidemiology, disease spread and favorable environmental conditions or fungal diseases.

Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding: Student is expected to

A1- Be familiar with symptomatology, epidemiology and modes of infection

A2- Be familiar with identification of fungal diseases.

B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1- Know the physiological interaction between fungus and diseased plant.

B2 Know the Control measures of plant diseases.

C. Subject-Specific Skills: Student is expected to

C1- Construct programs of protected agriculture.

C2--At the end of the course, the students are expected to gain skills about disease symptoms, crop loss assessment and disease diagnosis.

D. Transferable Key Skills: Students is expected to

D1- To be able to formulate an integrated pest program to control plant diseases safely.

ILOs: Learning and Evaluation Methods

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| --- | --- | --- |
| ILO/s | Learning Methods | Evaluation Methods |
|  | Lectures and Discussions | Exam and lab reports |

* Midterm Exam 15/4/2014. No makeup exams. Zero for absent students. Do not lose our confidence with you. Do not cheat in the exam otherwise you will lose your mark.
* You must be in the Lecture Room before 10 Oclock mornings.

Course Contents

|  |  |  |  |
| --- | --- | --- | --- |
| Content | Reference | Week | ILO/s |
| Introduction | 1 + 4 | 1 | A1 |
| Development of Mycology science. | 1 + 4 | 2 | A2 |
| Downy mildew diseases + (Late blight) | 1 + 3 + 4 + 5 | 3 | A1 + B1 + B2 + C1 + C2 |
| Wilt diseases ( Vascular diseases ) - vegetables and fruit trees | 1 + 3 + 4 | 4 | A1 + B1 + B2 + C1 + C2 |
| Rot diseases (Roots and Fruits) - vegetables and fruit trees | 1 + 2 + 3 + 4 + 6 | 5+6 | A1 + B1 + B2 + C1 + C2 |
| Damping – off disease- on vegetables | 1 + 3 + 4 + 5 | 7 | A1 + B1 + B2 + C1 + C2 + D1 |
| Early Blights | 1 + 3 + 4 + 6 | 8 | A1 + B1 + B2 + C1 + C2 |
| Rust diseases | 1 + 3 + 4 | 9 | A1 + B1 + B2 + C1 + C2 |
| Smut diseases | 1 + 4 + 5 | 10 | A1 + B1 + B2 + C1 + C2 |
| Powdery mildew diseases, fruit trees, ornamentals and vegetables | 1 + 2 + 3 + 4 + 5 | 11+12 | A1 + B1 + B2 + C1 + C2 |
| Leaf spot and scab diseases | 1 + 2 + 4 | 13+14 | A1 + B1 + B2 + C1 + C2 |
| Canker diseases ( Peach leaf curl, club root of crucifers ) | 1 + 2 + 4 | 15 | A1 + B1 + B2 + C1 + C2 |
| Final exam | - | 16 | Assigned from registration department |

Learning Methodology:

1-Lecture. 2-Lab

3-Reports. 4-Assignments

Projects and Assignments

Lab work and sample collections. Seminars by individual students to encourage developing skills of self-expression. Teaching tools: Data show, case study analysis and handouts.

Evaluation

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| --- | --- | --- |
| Evaluation | Point % | Date |
| Midterm Exam | 30 | 15/4/2014 |
| Midterm lab Exams  And lab book | 20 | Assigned later |
| Final Exam | 50 | As it is Scheduled by Registration Department |

Main Reference/s:

1-Agrios, N , 2005. Plant Pathology. Academic Press. 5th edition

References:

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

3-Dixon G.2002.Vegetable crop diseases. Macmillan publishers Ltd.,London. Pp.404.

4- أ. المومني و العنتري, ت. افات الحديقة والمنزل. 2008. مطبوعات الجامعة الأردنية. عمادة البحث العلمي

5-5- روبرت, بوثرويد.1988.أساسيات أمراض النبات.ترجمة الدار العربية للنشر و التوزيع.صفحة 521.

-6نفاع ، وليد. امراض النبات الفطرية ، مطبوعات جامعة دمشق. 2009

**Intended Grading Scale (Optional)**

0-39 **F**

40-49 **D**-

50-54 **D**

55-59 **D+**

60-64 **C**-

65-69 **C**

70-73 **C+**

74-76 **B**-

77-80 **B**

81-84 **B+**

85-89 **A**-

90-100 **A**

**Notes:**

* Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming, then the issue should be brought to the attention of the module coordinator (for multiple sections) who will take the concerns to the module representative meeting. Thereafter, problems are dealt with by the Department Chair and if still unresolved the Dean and then ultimately the Vice President. For final complaints, there will be a committee to review grading the final exam.
* For more details on University regulations please visit:

<http://www.ju.edu.jo/rules/index.htm>