**The University of Jordan**

**Faculty: Agriculture Department: Plant Protection**

**Program: Plant Protection 2013/2014, first semester**

**General Mycology , Course No. 606322**

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| **Credit hours** | **3** | **Level** | **3** | **Pre-requisite** | **Plant Pathology 606221** |
| **Coordinator/ Lecturer** | **Prof. Dr.Ahmad Mohamad Almomany** | **Office**  **number** | **258** | **Office phone** | **22513** |
| **Course website** | **none** | **E-mail** | **momanyah@ju.edu.jo** | **Place** | **132** |

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| **Office hours** | | | | | |
| **Day/Time** | **Sunday** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** |
| 10-11 | 10-11 | 10-11 | 10-11 | 10-11 | 10-11 |
|  |  |  |  |  |  |

**Course Description**

The course covers the study of fungal morphology, reproduction, ecomomic importance and classification of fungi according to their structures. Examples on selected economically important fungi will be discussed.

**Learning Objectives**

The main objectives of the course are:

1-Understand the principles of fungal classification

2-Understand the selected examples of important fungi

3-Understand the relation fungi to the day-to –day activities around them

4-Understand the different factors regarding epidemiology, disease spread and favorable environmental conditions for plant pathogenic fungi.

**Intended Learning Outcomes (ILOs):**

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

**A. Knowledge and Understanding:** Student is expected to

A1- Identify fungi

A2-Realise the different components of fungal fruiting structures

A3- Realize the different components of fungal classification

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

B1- Construct a program to grow beneficial fungi.

B2 – Draw schematic structures of life cycle of each group of fungi.

At the end of the course, the students are expected to gain skills about fungal types.

B3-Differentiation between beneficial and non-beneficial fungi

B4- Identification of macroscopic fungi.

B5-How to apply and use an integrated pest management program to control fungi

**C. Subject-Specific Skills:** Student is expected to

C1- Know the different factors regarding the development of large fungi.

C2- Know where to find fungi in different periods of the year.

**D. Transferable Key Skills:** Students is expected to

D1- manages mushroom farms.

D2- differentiates between different groups of fungal Classes.

**ILOs: Learning and Evaluation Methods**

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| --- | --- | --- |
| **ILO/s** | **Learning Methods** | **Evaluation Methods** |
| 1- Lectures.  2- Reports  3- Lab..  4- Sample collections.  Seminars by individual students to encourage developing skills of self-expression. | **Lectures and Discussions,**  Teaching tools: Data show, case study analysis and handouts | **Exam, Quiz, sample collections, lab reports** |

**Course Contents**

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| --- | --- | --- | --- |
| **Content** | **Reference** | **Week** | **ILO/s** |
| Mycology concept; Objectives of the course; Types of fungi | **1 + 2** | **1** | A1, A2 |
| History of fungi: Advantages and disadvantages of fungi. | **1 + 4** | *2* | A2, A3, B1 |
| General characteristics of fungi.  - Fungal systematics  - Phylum: Chytridiomycota b. Class : Trichomycetes | **1 + 5 + 7** | **3** | A1, A2, A3, B2, B3, B4, C1, C2, D2 |
| - Phylum: Zygomycota  a. Class : Zygomycetes | **1+2 + 7** | **4+5** | A1, A2, A3, B2, B3, B4, C1, C2 |
| - Phylum : Ascomycota, Sacharomycetales, Pyrenomycetes, Discomycetes, Ascomycetes | **1+3 + 6 + 7** | **6+7+8** | A1, A2, A3, B2, B3, B4, C1, C2, D1 |
| - Phylum : Basidiomycota | **1+2 + 6 + 7** | **9+10** | A1, A2, A3, B2, B3, B4, C1, C2, D1 |
| - Phylum: Oomycota | **1 + 2 + 7** | **11** | A1, A2, A3, B2, B3, B4, C1, C2 |
| - Phylum: Hyphochytriomycota | **1+4 + 7** | **12** | A1, A2, A3, B2, B3, B4, C1, C2 |
| - Phylum: Plasmodiophoromycota | **1+5 + 7** | **13** | A1, A2, A3, B2, B3, B4, C1, C2 |
| - Phylum: Acrasiomycota | **1+2 +7** | **14** | A1, A2, A3, B2, B3, B4, C1, C2 |
| - Phylum: Myxomycota | **1+3 + 7** | **15** | A1, A2, A3, B2, B3, B4, C1, C2 |

**Learning Methodology**

The course will be structured in lectures, discussions, theoretical and practical lecures. The course comprises overviews, from general understanding to expert knowledge on key topics, and learning is based on lectures.

**Lectures and discussions**

9-10 oclock in the morning and each topic will be opened for discussiuon at the beginning of the following session.

**Projects and Assignments**

Sample collections and identification of fungi available in the environment will be done in every lab.

**Evaluation**

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| --- | --- | --- |
| **Evaluation** | **Point %** | **Date** |
| **Midterm Exam** | **30%** | **10/11/2013** |
| **Assignments, sample identifications, Sample collection and lab Reports** | **10%** | **At the end of the course** |
| **Lab exam** | **10%** | **On time** |
| **Final Exam** | **Final exam (Theory & Lab) 50%** | On time |

**Text Book:**

1. Alexopolus, C., Mims,C.W. and Blackwell , M. (1995). Introductory Mycology.4th Edition, John Wiley & Sons, 868 pages.

**References:**

2.Ainsworth, G.C. et al (1968& 1973) The Fungi. Vols.

1,11,111,1V A & IVB. Academic Press, London.

3. Martin, G. & C. Alexopoulos (1979) The Myxomycetes, Univ. of lowa Press, Iowa City. 561 pages.

4. Moor-Landeker, E. (1972) Fundamentals of the fungi.

Prantice Hall, Inc., New York, U.S.A. 482 pages.

5.Webster, J. (1983) Introduction to fungi. 2nd Edition, Cambridge University Press, Cambridge, 669 pages.

1. Mycotaxon journal.2008-2013
2. Ainsworth, 2008. Dictionary of fungi. CABI. London

**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>