

Department of Biology College of Education Salahaddin University-Erbil Subject: Practical Mycology Course Book – (Year: 3)

**Lecturer's name: MSc. Rezhin Ali Mohammed**

Academic Year: 2022/2023

Course Book

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| **1. Course name** | **Practical Mycology** |
| **2. Lecturer in charge** | **Rezhin Ali Mohammed** |
| **3. Department/ College** | **Biology Dept./ College of Education** |
| **4. Contact** | **e-mail:** **rezhin.mohammed @su.edu.krd** |
| **5. Time (in hours) per week** | **Practical: 6hrs** |
| **6. Office hours** | **6 hrs** |
| **7. Course code** |  |
| **8. Teacher's academic profile** | **Msc. Rezhin Ali Mohammed Assistant Lecturer in Biology Profile****I finished B.Sc at Biology Department, College of Education, Salahaddin University-Erbil, Kurdistan-Iraq.****My main practical expertise was in mycology laboratory. I also have experience in laboratory-based Mycology having done in assistant laboratory.****I finished master degree in Mycology- University of Salahaddin-Erbil. I used computational methods to solve problems in biology. I worked also in the biological laboratory on fungi.****Now, I am teaching Practical Mycology and at Biology Department, College of Education, Salahaddin University- Erbil, Kurdistan-Iraq. I am also doing research.****Career****2018-Present: Assistant lecturer, Salahaddin University. 2013-2016: Master student, University of Salahaddin.**  |
| **9. Keywords** |  |
| **10. Course overview:**Mycology is a field of biology concerned with the study of fungi. Like higher fungi, fungi have played a major role in the production of bakery. Furthermore, some species are a important source of food for human they contain high amount of protein . They can also provide a great source of vitamin, a great variety of medicines, enzymes, proteins, minerals and other substance for humans.Because most of them are living in fresh water, marine, fields and lives in everywhere. |

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| and ocean, the can lead to the pollution of them. They release toxin substances which kill humans, plant, aquatic organisms. Mycology is very important to study. This subject is very important to be studied at the universities and schools as a subject.Students will be prepared to be a specialist (Mycologist). They will work in private and public sectors. They can work in internal and external ecological companies to solve the problems of air and water pollution with fungi. They will be prepared to be a researcher, unless they work on the fungi in mycological laboratories. Furthermore, the profession of students at the college of education will be the teacher, they will be familiar with this science. They will teach atprivate schools and also private Universities |
| 1. **Course objective (Intended Learning Outcomes) After this term students should be able to...**
	1. Know a lot of information about the phylum fungi.
	2. Recognize fungi among the other microorganism.
	3. Understanding the advantages and disadvantages of a lot of fungalgenera.
	4. Understanding the role of the fungi in environmental balance andecosystem.
	5. Understanding the role of the fungi in formation vitamins, minerals, proteins andenzymes.
	6. Recognize some infection which produced by fungi.
	7. Understanding the relationships between fungi and the other Kingdom.
	8. Isolation and identification of fungi from different source.
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| **12. Student's obligation**Students must attend at the lectures. At the beginning of each lecture, they are done a quiz about last lecture. At the end of each lecture, I will ask one or two question/s about the present lecture. For the next lecture, students must bring their own answers. Each student must make one assignment about one order of phycology during the term. |
| **13. Forms of teaching**Different forms of teaching will be applied to reach the objectives of the course: power point presentations for the head titles, definitions and description images, summary of conclusions, classification of materials and any other illustrations, besides worksheet will be designed to let the chance for practicing on several aspects of the course in the classroom, furthermore students will be asked to prepare fortnightly reports about selective topics. |
| **14. Assessment scheme**The students are required to do one closed book exam at the mid of the semester besides other assignments including daily activities, quizzes, and experimental results and precise. The exam includes 10 marks, classroom activities; quizzes and precise works counts 5 marks. There will be a final exam on 15 marks. |
| 1. **Student learning outcome:**

*After this term students should be able to...** 1. Obtain general information about fungi.
	2. Obtain information about the phylum of fungi .
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| 1. Identify the phylum of Oomycota.
2. Make the difference between the genera of fungal phylum
3. Diagram and compare these different fungi to each other.
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| 1. **Course Reading Listand References:**
	1. Book: Manual practical of fungi
	2. Book: practical manual of fungi
	3. Article about general introduction of fungi IV.

Webster, John & Weber, Roland WS (2007) Introduction to Fungi. Cambridge UniversityPress, New York, NY.1. Abdel ghany TM (2015) Entomopathogenic fungi and their role in biological control ,OMICS Group eBooks.USA.
2. Nagamani A, Kunwar I K and Manoharachary C (2006)Handbook of Soil Fungi Published by I K International. New Delhi.

[https://en.wikipedia.org/wiki/fungi](https://en.wikipedia.org/wiki/Algae) |
| **17. The Topics:** | **Lecturer's name** |
|  | ex: (2hrs)ex:16 /1/2023 |
| **18. Practical Topics (If there is any)** |  |
| **weeks** | **Subject** |  | **Lecturer's name** |
| **Rezhin Ali****Mohammed ex: (3-** |
| **1.** | **Preparation of Media, Culture Preservation** |
|  |  | **4 hrs)** |
|  |  | **ex: 16/1/2023** |
| **2.** | **Isolation of Fungi from Different source .** |  |
|  | **In Different ways** |  |
| **3.** | **Identification of fungi by naked eyes, according to the** |  |
|  | **colony shape, size, color etc.** |  |
|  | **And information about fungal stain and fixatives.** |  |
| **4.** | **Reproduction of fungi(sexual and a sexual reproduction)** |  |

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| **5.** | **Classification of Fungi****Show old and new classification****Difference between plant, animal and fungi** |  |  |
| **6** | **Phylum : Chytridiomycota** |

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|  | **Order: Chytridiales** |  |  |
| **7.** | **Phylum: Zygomycota, lifecycle .****Order: Mucorales , Family: Cunninghamellaceae, Syncephalastraceae ,Order: Entomophthorales** |
| **8.** | **Phylum: Ascomycota, Order: Pezizales Family : Tuberaceae ,Family: Morchellaceae** |
| **9.** | **Order: Clavicipitales, Order: Sordariales, Order: Taphrinales****Order: Saccharomycetales Family: Saccharomycetaceae** |
| **10.** | **Order: Onygenales, Family: Arthrodermataceae Order: Erysiphales Family: Erysiphaceae** |
| **11.** | **Phylum: Basidiomycota, Order: Agaricales****Order: Lycoperdales** |
| **19. Examinations:**1. ***Compositional:***

How can ingest food?1. ***True or false type of exams:***

*Epidermophyton* spp. attack to the skin and hair. **.**1. ***Multiple choices:***

**Trichothecene toxin produced by:****A-***Trichophyton spp*. **B**-*Aspergillus spp.* **C-** *Penicillium* sp. D-*Fusarium* sp.1. **Fill the gaps with the convenient worde?**

Male gametes of phylum ascomycota called...........................and female gametes called ....................... |
| **20. Extra notes:** |
| **21. Peer review هاوهڵ پێداچوونهوهی** |