هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

# Course Specifications

| | |
|---|---|
| **Course Title:** | **Mycology** |
| **Course Code:** | **2013113-3** |
| **Program:** | **Bachelor in Microbiology** |
| **Department:** | **Biology Department** |
| **College:** | **Faculty of Science** |
| **Institution:** | **Taif University** |

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## A. Course Identification

| |
|---|
| **1. Credit hours: 3hr** |
| **2. Course type**<br>**a.** University ☐ College ☐ Department ☑ Others ☐<br>**b.** Required ☑ Elective ☐ |
| **3. Level/year at which this course is offered: 7th level – 3rd year** |
| **4. Pre-requisites for this course** (if any)**: General Microbiology/ 2012203-3** |
| **5. Co-requisites for this course** (if any)**: None** |

**6. Mode of Instruction** (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|---|---|---|---|
| 1 | **Traditional classroom** | 6 hrs/Week | 100 |
| 2 | **Blended** | - | - |
| 3 | **E-learning** | - | - |
| 4 | **Distance learning** | - | - |
| 5 | **Other** | - | - |

**7. Contact Hours** (based on academic semester)

| No | Activity | Contact Hours |
|---|---|---|
| 1 | **Lecture** | 30 |
| 2 | **Laboratory/Studio** | 30 |
| 3 | **Tutorial** | - |
| 4 | **Others** (specify) | - |
| | **Total** | 60 |

## B. Course Objectives and Learning Outcomes

**1. Course Description:**

This course deals with studying the cellular structures of fungus, asexual and sexual spores produced by fungi, different life methods between fungi, basics of classification of fungi, life cycles, methods of reproduction of all fungi sections, economic importance and selected models of some diseases caused by fungi in each section.

**2. Course Main Objective:**

The course covers items related to basic concepts and nature of fungi, the relationship of fungi with living organisms, properties of fungi as well as the medical and economic importance of fungi.

**3. Course Learning Outcomes**

| | CLOs | Aligned PLOs |
|---|---|---|
| 1 | **Knowledge and Understanding:** | |
| 1.1 | Recognize facts, principles and concepts of mycology and other related sciences. | K1 |
| 1.2 | Differentiate between various types of fungi. | K2 |

| CLOs | | Aligned PLOs |
|---|---|---|
| **2** | **Skills:** | |
| 2.1 | Explain methods of isolation and identification of fungi | S1 |
| 2.2 | Recognize the importance of fungi in medical, economical and environmental fields. | S3 |
| **3** | **Values:** | |
| 3.1 | Choose the variable types of media to grow fungi. | V1 |

## C. Course Content

| No | List of Topics | Contact Hours |
|---|---|---|
| 1 | **Unit 1:** Introduction and definition of fungi. | 3L + 3P |
| | The general composition of the fungal cell. | 3L + 3P |
| | Basics of fungal classification and the distribution of fungi in various environments. | 3L + 3P |
| 2 | **Unit 2:** The general characteristics of *Myxomycetes* and study of some genera and their life cycles and their disease. | 3L + 3P |
| | The general characteristics of *Oomycetes* and study of some genera and their life cycles and their disease | 3L + 3P |
| 3 | **Unit 3:** The general characteristics of *Zygmycetes* and study of some genera and their life cycles. | 3L + 3P |
| | The general characteristics of *Ascomycetes* and study of some genera and their life cycles and their disease. | 3L + 3P |
| 4 | **Unit 4:** The general characteristics of *Basidomycetes* and study of some genera and their life cycles. | 3L + 3P |
| | The general characteristics of *Deuteromycetes* and study of some genera and their life cycles and their disease. | 3L + 3P |
| | The importance of fungi. | 3L + 3P |
| **Total** | | 30L + 30P |

## D. Teaching and Assessment

### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Teaching Strategies | Assessment Methods |
|---|---|---|---|
| **1.0** | **Knowledge and Understanding:** | | |
| 1.1 | Recognize facts, principles and concepts of mycology and other related sciences. | Lectures | Paper-based exams |
| 1.2 | Differentiate between various types of fungi. | Lectures<br>Concept maps | Paper-based exams |
| **2.0** | **Skills:** | | |
| 2.1 | Explain methods of isolation and identification of fungi | Lectures<br>Lab activities | Paper-based exams<br>Practical reports |

| Code | Course Learning Outcomes | Teaching Strategies | Assessment Methods |
|---|---|---|---|
| 2.2 | Recognize the importance of fungi in medical, economical and environmental fields. | Small group activities Interactive learning | Assignments |
| **3.0** | **Values:** | | |
| 3.1 | Develop plans to perform specific tasks independently and responsibly. , and distinguish between the types of variable media for the growth of fungi.. | Lab activities | Practical exam |

### 2. Assessment Tasks for Students

| # | Assessment task* | Week Due | Percentage of Total Assessment Score |
|---|---|---|---|
| 1 | Assignments and activities:<br>1- Written Assignment<br>Power-point presentation | Variable | 10 |
| 2 | Midterm Exam | 5th | 20 |
| 3 | Periodic Exam | 7th | 10 |
| 4 | Practical Reports | Continuous | 15 |
| 5 | Final Practical Exam | 11th | 5 |
| 6 | Final Exam | 12th | 40 |

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

**Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :**

6 hours per week for academic advice and consultations
Teaching staff is also available using Blackboard web site and Taif University "Edugate" System.

## F. Learning Resources and Facilities

### 1.Learning Resources

| | |
|---|---|
| **Required Textbooks** | Webster J. and Weber R.W.S. 2007. Introduction to Fungi.3 thISBN-13 978-0-511-27783-2.<br>Deacon J.W. 2005. Fungal Biology, 4th Edition. ISBN: 978-1-4051-3066-0. |
| **Essential References Materials** | Petersen J.H. 2013. The Kingdom of Fungi Hardcover.<br>Sharma O.P. Textbook of Fungi. 1988. McGraw Hill Higher Education. |
| **Electronic Materials** | Blackboard website<br>Website of Saudi digital Library |
| **Other Learning Materials** | Computer-based programs and professional software |

## 2. Facilities Required

| Item | Resources |
|---|---|
| **Accommodation** (Classrooms, laboratories, demonstration rooms/labs, etc.) | ▪ Classroom (capacity not more than 40 students) for 2 h/week. Microbiology Lab (capacity not more than 20 students) for 3 h/week. |
| **Technology Resources** (AV, data show, Smart Board, software, etc.) | ▪ Data Show projectors, smart blackboard Computer Portable PowerPoint presentations to special lectures. |
| **Other Resources** (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list) | ▪ Autoclave<br>▪ Incubators<br>▪ Micropipettes and its tips<br>▪ Petri dishes<br>▪ Microscopes<br>▪ Culture media<br>▪ Samples of different sources |

## G. Course Quality Evaluation

| Evaluation Areas/Issues | Evaluators | Evaluation Methods |
|---|---|---|
| Effectiveness of teaching and assessment | Students | Indirect |
| Quality of learning resources | Peer Reviewer<br>Students | Direct<br>Indirect |
| Extent of achieving the course learning outcomes | Peer Reviewer<br>Students | Direct<br>Indirect |

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

| | |
|---|---|
| **Council / Committee** | **Biology Department** |
| **Reference No.** | **Committee number 14 - Academic Year 1442-1443H** |
| **Date** | **22\5\2022G – 21\10\1443H** |

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