|  |
| --- |
| **Course Title:** Advanced Mycology |
| **Course Code**: 531 MBI |
| **Program**: MS.c in Microbiology |
| **Department**: BOTANY AND MICROBIOLOGY |
| **College**: SCIENCE |
| **Institution**: KING SAUD UNIVERSITY |
| **Version**:  *Course Specification Version Number* |
| **Last Revision Date:** *Pick Revision Date.* |

**Table of Contents**

[**A. General information about the course:** 3](#_Toc138158353)

[**B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods:** 4](#_Toc138158354)

[**C. Course Content:** 4](#_Toc138158355)

[**D. Students Assessment Activities:** 5](#_Toc138158356)

[**E. Learning Resources and Facilities:** 5](#_Toc138158357)

[**F. Assessment of Course Quality:** 5](#_Toc138158358)

[**G. Specification Approval Data:** 6](#_Toc138158359)

# **A. General information about the course:**

**1. Course Identification:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 1. Credit hours: (121+1) | | | | | | |
|  | | | | | | |
| 2. Course type | | | | | | |
| A. | University | College | Department | | Track |  |
| B. | Required | | | Elective | | |
| 3. Level/year at which this course is offered: ( ……….) | | | | | | |
| 4. Course general Description: | | | | | | |
| Modern Classification of Fungi, The general form of filamentous fungi and unicellular fungi, nutritional requirements and feeding method in fungi, growth method, and the most important factors affecting their growth, reproduction methods. | | | | | | |
| 5. Pre-requirements for this course (if any): | | | | | | |
| NA | | | | | | |
| 6. Pre-requirements for this course (if any): | | | | | | |
| NA | | | | | | |
| 7. Course Main Objective(s): | | | | | | |
| This course aims to introduce students to the modern classification of fungi, Study of their genetic and biochemical characteristics, highlighting their importance in the environmental, economic and biotechnological field. | | | | | | |

**2. Teaching Mode:** (mark all that apply)

| **No** | **Mode of Instruction** | **Contact Hours** | **Percentage** |
| --- | --- | --- | --- |
| 1 | Traditional classroom | 28 | 100% |
| 2 | E-learning |  |  |
| 3 | Hybrid   * Traditional classroom * E-learning |  |  |
| 4 | Distance learning |  |  |

**3. Contact Hours:** (based on the academic semester)

|  |  |  |
| --- | --- | --- |
| **No** | **Activity** | **Contact Hours** |
|  | **Lectures** |  |
|  | **Laboratory/Studio** |  |
|  | **Field** |  |
|  | **Tutorial** |  |
|  | **Others (specify)……** |  |
|  | **Total** |  |

# **B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods:**

| **Code** | **Course Learning Outcomes** | **Code of PLOs aligned with program** | **Teaching Strategies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| **1.0** | **Knowledge and understanding** | | | |
| 1.1 | **Students will be able to recognize the general properties of fungi.** | **K 1.1** |  |  |
| 1.2 | **Students will be able to identify the basic criteria used for classification of different types of Fungal groups** | **K1.2** |  |  |
| 1.3 | **Students will be able to recall the principles and applications of the different methods used for diagnosis of Fungi** | **K1.3** |  |  |
| … |  |  |  |  |
| **2.0** | **Skills** | | | |
| 2.1 | **Students will be able to distinguish between special tools for isolating fungi and other microbes.** | **S.1.1** |  |  |
| 2.2 | **Students will be able to predicting and interpreting the results of mycological techniques** | **S1.2**  **S1.3** |  |  |
| 2.3 | **Students will be able to design the experiment approaches to solve specific research problems in mycology** | **S2.2**  **S2.4** |  |  |
| 2.4 | **Students will be able to prepare standard operating protocols for mycological techniques** | **S2.2**  **S2.4** |  |  |
| 2.5 | **Students will be able to analyze the inter-relationships between different types of fungi in their natural habitats (in an ecosystem)** | **S1.2**  **S1.3** |  |  |
| **3.0** | **Values, autonomy, and responsibility** | | | |
| 3.1 | **Students will be able to apply knowledge in practice.** | **C1.1**  **C1.2** |  |  |
| 3.2 | **Students will be able to organize, plan and communicate oral and written.** | **C1.3**  **C1.4**  **C.1.5** |  |  |
| 3.3 | **Students will be able to demonstrate advanced knowledge in the application of integration of biological fungi to solve environmental problems.** | **C1.1**  **C1.2** |  |  |

# **C. Course Content:**

|  |  |  |
| --- | --- | --- |
| **No** | **List of Topics** | **Contact Hours** |
|  | **Fungal idefinition, characterization and classification** | **4** |
|  | **Fungal features and growth of hyphae and mycelia formation.** | **4** |
|  | **Fungal Growth on different media** | **2** |
|  | **characteristics of the fungi main groups** | **2** |
|  | **Fugal Genetics and Genomics** | **4** |
|  | **Fungi and biological control** | **4** |
|  | **Applied field of fungi(In food, in medicine, in industry)** | **6** |
|  | **Students Presentation of new researches** | **2** |
| **---** |  |  |
| **Total** | | **28** |

# **D. Students Assessment Activities:**

| **No** | **Assessment Activities \*** | **Assessment timing**  **(in week no)** | **Percentage of Total Assessment Score** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **...** |  |  |  |

\*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

# **E. Learning Resources and Facilities:**

**1. References and Learning Resources:**

|  |  |
| --- | --- |
| **Essential References** | Advanced Mycology,[A. K. Sarbhoy](https://www.abebooks.co.uk/servlet/SearchResults?an=A.+K.+Sarbhoy&cm_sp=det-_-bdp-_-author) **(1983), Today & Tomorrow's Printers and Publishers, New Delhi,** |
| **Supportive References** |  |
| **Electronic Materials** | **Web Sites, Facebook, Twitter, etc.** |
| **Other Learning Materials** |  |

**2. Educational and Research Facilities and Equipment Required:**

| **Items** | **Resources** |
| --- | --- |
| **facilities**  (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | **Calssroom, Labs** |
| **Technology equipment**  (Projector, smart board, software) | **Smart Board, and software** |
| **Other equipment**  (Depending on the nature of the specialty) | **The recent bacterial identification systems** |

# **F. Assessment of Course Quality:**

| **Assessment Areas/Issues** | **Assessor** | **Assessment Methods** |
| --- | --- | --- |
| **Effectiveness of teaching** | **Feedback to students and a letter to the dean** | **Direct** |
| **Effectiveness of students assessment** | **Faculty, Program Leaders, Peer Reviewer.** | **Direct** |
| **Quality of learning resources** | **Grading and Assessing Student Learning.**  **Department and Curricular Work** | **Direct** |
| **The extent to which CLOs have been achieved** |  |  |
| **Other** |  |  |

**Assessor** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

**Assessment Methods** (Direct, Indirect)

# **G. Specification Approval Data:**

|  |  |
| --- | --- |
| **Council /COMMittee** |  |
| **Reference No.** |  |
| **Date** |  |