





Course specifications (Postgraduate Degree)

Course Title:	Advanced Mycology
Course Code:	531MBIO
Program:	M.Sc in Microbiology
Department:	Botany and Microbiology
College:	Science
Institution:	King Saud University



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A. Course Identification

1. Credit hours: 2 (1+1)			
2. Course type			
Required	Elective		
3. Level/year at which this course is offered:	First Level		
4. Pre-requisites for this course (if any): NA			
5. Co-requisites for this course (if any): NA			

6.Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	28	100 %
2	Blended		
3	E-learning		
4	Correspondence		
5	Other		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours	
Contac	Contact Hours		
1	Lecture	20	
2	Laboratory/Studio		
3	Seminars	8	
4	Others (specify)		
	Total	28	
Other	Other Learning Hours*		
1	Study	30	
2	Assignments	7	
3	Library	15	
4	Projects/Research Essays/Theses	8	
5	Others(specify)		
	Total	60	

*The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course 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.

2. Course Main Objective

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.

3. Course Learning Outcomes Aligned **Course Learning Outcomes (CLOs) PLOs*** Knowledge 1 1.1 K1.1 Students will be able to recognize the general properties of fungi. 1.2 Students will be able to identify the basic criteria used for classification K1.2 of different types of Fungal groups Students will be able to recall the principles and applications of the 1.3 K1.3 different methods used for diagnosis of Fungi 1..._ 2 Skills Students will be able to distinguish between special tools for isolating 2.1 S.1.1 fungi and other microbes. Students will be able to predicting and interpreting the results of 2.2 S1.2 mycological techniques S1.3 2.3 Students will be able to design the experiment approaches to solve S2.2 specific research problems in mycology S2.4 Students will be able to prepare standard operating protocols for S2.2 2... mycological techniques S2.4 Students will be able to analyze the inter-relationships between 3 S1.2 S1.3 different types of fungi in their natural habitats (in an ecosystem) 3 Competence 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 C1.3 written. C1.4 C.1.5 3.3 Students will be able to demonstrate advanced knowledge in the C1.1 application of integration of biological fungi to solve environmental C1.2 problems. 3...

* Program Learning Outcomes

C. Course Content

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



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		
1.1	Students will be able to recognize the general properties of fungi.	Lectureshome work	Quizzes, exams, reports,
1.2	Students will be able to identify the basic criteria used for classification of different types of Fungal groups	• assignments, reports, presentations	assignments, and discussions
1.3	Students will be able to recall the principles and applications of the different methods used for diagnosis of Fungi	• Demonstrations and reports	Tests and quizzes.
2.0	Skills		
2.1	Students will be able to differentiate and categorize different species of fungi	• Library and web search	
2.2	Students will be able to predicting and interpreting the results of mycological techniques	Team studies and reports	Class presentation, written reports,
2.2	Students will be able to design the experiment approaches to solve specific research problems in mycology	• presentations on	quizzes and exams
2.3	Students will be able to prepare standard operating protocols for mycological techniques	a relevantresearch paperopen discussion	
2.4	Students will be able to analyze the inter- relationships between different types of fungi in their natural habitats (in an ecosystem)	• reports.	Oral and written tests, seminars and Discussions
3.0	Competence		
3.1	Students will be able to apply knowledge in practice.	lectures • workshops	Feedback to students
3.2	Students will be able to organize, plan and communicate oral and written.	 simulated teaching situations (group) discussion presentations role playing 	Self-reflection Discussion peer evaluation
3.3	Students will be able to demonstrate advanced knowledge in the application of integration of biological fungi to solve environmental problems.	 interactive lectures, group discussion, collaborative learning, practical assignments, independent work, consultative teaching 	Presentation, Essay Discussion peer evaluation

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2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Midterm exam	6	30%
2	Worksheet	4	10%
3	Discussion	9	10%
4	Presentation	11	10%
5	Final Exam	15	40%
6			
7			
8			

*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: Two hour per week

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Advanced Mycology, A. K. Sarbhoy (1983), Today & Tomorrow's Printers and Publishers, New Delhi,
Essential Reference Materials	
Electronic Materials	Web Sites, Facebook, Twitter, etc.
Other Learning Materials	

2. Educational and researchFacilities and Equipment Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom, demonstration room.
Technology Resources (AV, data show, Smart Board, software, etc.)	data show, Smart Board, software
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment.	Feedback to students and a letter to the dean,	Direct
Extent of achievement of course learning outcomes.	Faculty, Program Leaders, Peer Reviewer.	Direct
Quality of learning resources.	Grading and Assessing Student Learning. Department and Curricular Work	Direct

Evaluation Areas/Issues (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	
Reference No.	
Date	

