

THOMAS ADEWUMI UNIVERSITY OKO
COURSE OUTLINE

Faculty	COMPUTING AND APPLIED SCIENCES	
Department	BIOLOGICAL SCIENCES	
Course title	MYCOLOGY	
Year of study	3	
Course code	MCB 305	
Credit hours	3	
Contact hours	45	
Mode of delivery	CLASSROOM LECTURES LABORATORY PRACTICAL SESSIONS	
Mode of assessment		WEIGHT%
Continuous assessment		30%
Final examination		70%
Total		100%
Course lecturers and Instructors	Mr. B. Oladapo-LECTURER	
Course description	Mycology is the study of Fungi, which is an entire kingdom by itself. The course seeks to understand the physical structure of fungi, classification, genetic makeup and how their unique metabolism affects other organisms in their ecosystem positively and negatively.	
Course objectives	<p>This course will make it possible to understand</p> <ol style="list-style-type: none"> 1. The general characteristics of Fungi 2. Their classes and basis of classification 3. Structural features of each class 4. Reproduction and life cycle in Fungi 5. Fungal nutrition/metabolism 6. The economic importance of Fungi 7. Laboratory techniques in Mycology 8. Fungal diseases and immune response. 	
Learning outcomes	<p>By the end of the course, students will be able to:</p> <ol style="list-style-type: none"> 1 Describe the general characteristics of fungi 2 Classify and identify fungi 	

	<ol style="list-style-type: none"> 3 Describe the structural features of each class 4 Explain the types of reproduction in fungi 5 Explain the life cycle of fungi. 6 Describe their mode of nutrition 7 Understand the laboratory techniques used in mycological studies 8 Describe important fungal diseases
Teaching and learning	The class will meet for three hours a week. It will be a combination of teachings and practical sessions.
Detailed course content	Introduction. Economic importance of fungi. Classification of fungi. Laboratory methods in mycology. Demonstration of Koch's postulates. Structure, life cycle, growth and development of fungi. Pathology and immunology of superficial systemic mycoses and actinomycoses. Fungi genetics and growth. Nutrition in fungi. Fungi as heterotrophs
Course content sequencing	
Weeks	
Week 1	Introduction. Economic importance of fungi. Classification of fungi
Week 2 – 3	Structure, life cycle, growth and development of fungi
Week 4	Nutrition in fungi. Fungi as heterotrophs Continuous Assessment 1
Week 5 – 7	Pathology and immunology of superficial systemic mycoses and actinomycoses. Practical 1
Week 8	Laboratory methods in mycology. Demonstration of Koch's postulates.
Week 9	Continuous Assessment 2
Week 11	Practical 2
Week 12	Revision
Recommended reading material	
1 Joanne Willey and Kathleen Sandman and Dorothy Wood (2020). Prescott's Microbiology,	

- 2 Michael T. Madigan, Kelly S. Bender, Daniel H. Buckley W. Matthew Sattley and David A. Stahl (2019) Brock Biology of Microorganisms
- 3 John Webster and Roland W.S. Weber. Introduction to Fungi (2007). Cambridge University Press.

Course code: MCB 305

Course title: MYCOLOGY

Preamble: The term "**mycology**" is derived from a Greek word "mykes" meaning mushroom. Therefore, mycology is the study of fungi. About 80,000 to 120,000 species of fungi have been described, although the total number of species is estimated at around 1.5 million.

The important role they play in nature justifies the careful and extensive study of the field over the years.

Specific course objectives/learning outcomes.

The course will enable the understanding of the following:

1. Describe the general characteristics of fungi
2. Classify and identify fungi
3. Describe the structural features of each class
4. Explain the types of reproduction in fungi
5. Explain the life cycle of fungi.
6. Describe their mode of nutrition
7. Understand the laboratory techniques used in mycological studies
8. Describe important fungal diseases

Learning activities/Course delivery methods

1. Lectures: detailed content of course are taught in class
2. Laboratory Sessions: the practical application of the course is demonstrated in the laboratory

Course content: Cell organization: Introduction. Economic importance of fungi. Classification of fungi. Laboratory methods in mycology. Demonstration of Koch's postulates. Structure, life cycle, growth and development of fungi. Pathology and immunology of superficial systemic mycoses and actinomycoses. Fungi genetics and growth. Nutrition in fungi. Fungi as heterotrophs