

As Per NEP 2020

University of Mumbai



Syllabus for Basket of OE	
Board of Studies in Bioanalytical Sciences	
UG First Year Program	
Semester	I
Title of Paper	Credits - 2
1) PLANT PHYSIOLOGY	
From the Academic Year	2024-25

Sr. No.	Heading	Particulars
1	Description the course : Including but Not limited to :	The aim of Open elective is designed to provide co-curricular extension of subject domain in the botany and allied areas, where bioanalysts can get into fields like natural products, cosmetology, Aayush related sciences, applied biotechnology and more.
2	Vertical :	Open Elective
3	Type :	Theory & Practical
4	Credit:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted :	15 Hours and 30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: CO 1. Introduce students to the concept of photosynthesis and respiration of plant. CO 2. Familiarize students with the plant life and their growth regulators. CO 3. To develop students & skills in laboratory and fieldwork techniques in botany. CO 4. To cultivate an appreciation for the importance of plants in human society and the environment.	
8	Course Outcomes: OC 1. Understand the difference between respiration and photosynthesis and their co relation. OC 2. Gain knowledge about plant reproduction part and process. OC 3. Better understanding of the plant growth regulators. OC 4. Understand the physiological processes that occur in plants, such as photosynthesis, respiration, transpiration, and reproduction.	

9	Plant Physiology [30]	
	Unit 1 : Photosynthesis and respiration, Plant water relations.	[15]
	Unit 2 : i) Plant hormones and growth regulators. ii) Plant reproductive structures and mechanisms.	[15]
10	Reference Books: 1. Botany: An Introduction to Plant Biology" by James D. Mauseth 2. "Plant Physiology" by Lincoln Taiz and Eduardo Zeiger 3. "Introduction to Botany" by Murray Nabors. 4. "Plant Physiology and Development" by Lincoln Taiz, Eduardo Zeiger, Ian M. Møller, and Angus Murphy	
11	Internal Continuous Assessment: 40%	External, Semester End Examination : 60% Individual Passing in Internal and External Examination
12	Continuous Evaluation through: Quizzes, Class Tests, presentation, project, role play, creative writing, assignment etc.(at least 3)	
13	Format of Question Paper: 30 Marks per paper Semester End Theory Examination: 1. Duration - These examinations shall be of one hour and 30 minutes duration. 2. Theory question paper pattern: a. There shall be 03 questions each of 10 marks on each unit b. All questions shall be compulsory with internal choice within the questions	

Sign of the BOS
Chairman
Dr. Prafullachandra
P.Tekale
Bioanalytical Sciences

Sign of the
Offg. Associate Dean
Dr. Madhav R. Rajwade
Faculty of Science &
Technology

Sign of the
Offg. Dean
Prof. Shivram S. Garje
Faculty of Science &
Technology