

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
I) Introduction to Botany	
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 major concepts and principles in botany. CO 2. Familiarize students with the diversity of plant life and their ecological significance. 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. Identify and describe the structures and parts of plants, including leaves, stems, roots, flowers, and fruits OC 2. Gain knowledge of the classification system for plants OC 3. Better understanding of the medicinal and economic importance of plants, including the role of plants in medicine, agriculture, industry, and everyday life. OC 4. Understand the physiological processes that occur in plants, such as photosynthesis, respiration, transpiration, and reproduction.	

9	Introduction to Botany [30]	
	Unit 1 : i) Definition and scope of botany, Historical development of botany as a science [8] ii) Importance of botany in society and the environment. [7]	
	Unit 2 : i) Structure and function of plant cells, tissues, and organs, Morphological adaptations in plants [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