



SHIKSHANMAHARSHIDR.D.Y.PATILSHIKSHANSANSTHA'S

DR.D.Y.PATIL

COLLEGE OF COMPUTER & BUSINESS STUDIES

(Affiliated to Savitribai Phule Pune University)

AISHE CODE: C-41976 PUN CODE: CAAP014520

Department of Botany

Course outcomes (Semester-wise)

Name of the Department	Class	Course Name	Course code	Course Outcome
Botany	F.Y. B.Sc. (SEM-I)	Botany I- Plant life and Utilization I	BO111	<p>CO1. Student becomes aware about the plant diversity i.e. various plant groups such as Algae, Lichens, Fungi, Bryophytes, Pteridophytes, Gymnosperm and Angiosperms.</p> <p>CO2. They understand the value of plant diversity by knowing the utilization of each plant group for human use as well as for maintenance of entire ecosystem and environment.</p>
		Botany II- Plant morphology and anatomy	BO112	<p>CO1. Student gets the knowledge of different morphological characters of plants such as inflorescence, flower and its parts, fruits and seeds.</p> <p>CO2. They know about how these morphological characters are useful in identification, nomenclature, classification, phylogeny and plant breeding</p> <p>CO3. Student knows about the anatomical structure in plant system by studying different tissue systems in plants.</p>



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		Practical based on BO111 and BO112	BO113	CO1. Student gets the Practical knowledge about different plant specimen by studying its morphological and anatomical characters.
F.Y. B.Sc. (SEM II)		Botany I- Plant life and Utilization II	BO121	CO1. Students understand the detailed morphological and anatomical studies with reference to pteridophytes, gymnosperms and angiosperms. CO2. They realize the utilization and ecological importance of these plant groups.
		Botany II- Principles of plant science	BO122	CO1. Student understands the concepts Plant physiology such as osmosis, diffusion, plasmolysis etc., plant cell structure and cell cycles in plants. CO2. Student get knowledge about the structure of DNA and RNA its function and replication.
		Practical based on BO121 and BO122	BO123	CO1. Student gets the Practical knowledge about different plant specimen by studying its morphological and anatomical characters. CO2. The practicals of physiology make them aware about how the plant performs its metabolic activities. CO3. Student realize about how DNA and RNA can be isolated and quantified.



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Botany	S.Y. B.Sc.	Botany I- Taxonomy of	23141	CO1. Students understand Plant descriptions, description of morphological and reproductive characters of plants and also identification and
	(SEM I)	Angiosperm and plant ecology		classification and nomenclature of plant families of Angiosperm. CO2. Students get knowledge of various systems of classification and botanical nomenclature. CO3. Students understand environmental basic concept of ecology and know about plant adaptation according to different ecological conditions such as xerophytes, halophytes, mesophytes and succulents.
		Botany II- Plant physiology	23142	CO1. Students get knowledge of basic concepts in plant physiology such as plant water relation, osmosis, imbibition, water absorption, transpiration and ascent of sap. CO2. Student understand the concept of Nitrogen metabolism, seed dormancy and germination, physiology of flowering and vernalization.



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		Botany III- Practical	23143	<p>CO1. Student gets the Practical knowledge about tools of taxonomy and ecological instruments and how to describe plant families and their economic importance.</p> <p>CO2. Student gets the Practical knowledge of ecological adaptations in xerophytes and hydrophytes and study of vegetation by list count quadrat method.</p>
				<p>CO3. The practicals of physiology make them aware about how the plant performs its metabolic activities.</p>
	S.Y. B.Sc. (SEM II)	Botany I- Plant anatomy and embryology	24141	<p>CO1. Student realizes the anatomical structure of angiosperm with respect to Epidermal tissue system, Mechanical tissue system, Vascular tissue system, Normal secondary growth, Anomalous secondary growth.</p> <p>CO2. They understand basic knowledge of microsporangium, mega sporangium, pollination and fertilization.</p> <p>CO3. Students understand the concept of endosperm and embryo and embryo development and types of embryo.</p>



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	Botany II- Plant Biotechnology	24142	<p>CO1. Students know about introduction to plant Biotechnology, plant tissue culture and single cell protein.</p> <p>CO2. Students understand basics of plant genetic engineering, genomics, proteomics and bioinformatics.</p> <p>CO3. They aware about methods of bioremediation- microbial remediation and phytoremediation.</p> <p>CO4. Students know about concept of biofuel technology- biogas, bioethanol, biobutanol, biodiesel and biohydrogen.</p>
	Botany III- Practical	24143	<p>CO1. Student get the practical knowledge of the epidermal tissue system, mechanical tissue system, normal and anomalous secondary growth, embryonic development in plant system, tetrasporangiate anther and types of ovules.</p> <p>CO2. Student get knowledge about laboratory instruments, preparation and sterilization of MS medium.</p> <p>CO3. Students get practical knowledge of <i>Spirulina</i> cultivation and demonstration of transgenic crops and instruments of agarose gel electrophoresis, centrifuge and spectrophotometer.</p>