

**Mahatma Gandhi Vidyamandir's**

**Smt. Pushpatai Hiray Mahila Mahavidyalya, Malegaon, Dist. Nashik.**

**Department of Botany**

**Programme Outcomes: B.Sc Botany**

After successful completion of three year degree program in Botany a student is able to;

<b>Course Name</b>	<b>Course outcome</b>
	<b>F.Y.B.Sc</b>
	CO-1. Students learn different types of lower & higher plants and their evolution in from algae to angiosperm. CO-2. Students know the Cell biology CO-3. Molecular biology gives knowledge about chemical properties of nucleic acid CO-4. The students are able to understand about Plant taxonomy and their systematic classification system
<b>S.Y.B.Sc (Sem II)</b>	
<b>Taxonomy of Angiosperms and Plant community</b>	CO-1. The students understand the Plant taxonomy and their classification systems. CO-2. Students know the modern approaches in taxonomic studies. CO-3. Students learn the role of taxonomy in conservation of biodiversity. CO-4. Learn the diversity of angiosperms. CO-5. Know the comparative account among the families of angiosperms. CO-6. Understand the economic importance of the angiosperm plants. CO-7. Understand the distinguishing features of angiosperm families
<b>Plant Physiology</b>	CO-1. Students learn the absorption, translocation and utilization of water and other minerals. CO-2. Understand the changes during growth process (germination to abscission).

	<p>CO-3. Learn the energy flow and various metabolic cycles with their integration.</p> <p>CO-4. Understand the overall perception about various physiological processes occurring in plants.</p>
<b>S.Y.B.Sc (Sem II)</b>	
<b>Plant Anatomy and Embryology</b>	<p>CO-1. Students know the scope &amp; importance of Anatomy and Embryology.</p> <p>CO-2. Learn the various tissue systems.</p> <p>CO-3. Know the normal and anomalous secondary growth in plants and their causes.</p> <p>CO-4. Perform the techniques in anatomy.</p> <p>CO-5. Understand male and female gametophytes.</p> <p>CO-6. Know fertilization, endosperm and embryogeny.</p>
<b>Plant Biotechnology</b>	<p>CO-1. Understand the fundamentals of plant tissue culture techniques.</p> <p>CO-2. Know the transgenic technology for the improvement of quality and quantity of plant and thereby product.</p> <p>CO-4. Learn the application and importance of plant tissue culture and transgenic plants.</p>
<b>T.Y.B.Sc (Sem III)</b>	
<b>Cryptogamic Botany</b>	<p>CO-1. Students understand the cryptogams and their Diversity.</p> <p>CO-2. Understand the systematics, morphology and structure of algae, fungi, bryophytes, and Pteredophytes.</p> <p>CO- 3. Acquaint with the life cycle pattern of cryptogams.</p> <p>CO-4. Understand the economic importance of cryptogams.</p> <p>CO-5. Aware about evolution of algae, fungi, bryophytes and Pteredophytes</p>
<b>Cell and Molecular Biology</b>	<p>CO-1. Acquaint about cell and its function.</p> <p>CO-2. Know the scope and importance of molecular biology.</p> <p>CO-3. Acquaint with the ultra structure of cell wall, plasma membrane and cell organelles</p> <p>CO-4. Understand the biochemistry of cell.</p>

<b>Genetics and Evolution</b>	<p>CO-1. Students are acquainting with the Mendelian and neo Mendelian genetics.</p> <p>CO-2 Understand about interaction of genes, multiple alleles and linkage and crossing over.</p> <p>CO-3. Learn about the sex linked inheritance, chromosomal aberrations.</p> <p>CO-4. Understand the evolutionary sequence of various groups of plants.</p>
<b>Spermatophyta and Palaeobotany</b>	<p>CO-1. Students learn the gymnosperms and angiosperms.</p> <p>CO-2. Know the morphological and reproductive character of spermatophytic plants.</p> <p>CO-3.Understand economic importance of gymnosperms and angiosperms.</p> <p>CO-4.Know the diversity of spermatophyte.</p> <p>CO-5. Learn the scope and application of Palaeobotany.</p>
<b>Horticulture and Floriculture</b>	<p>CO-1.Students learns the economic importance of plant and plant product.</p> <p>CO-2. Students acquaint with the methods of plant propagation.</p> <p>CO-3.Understand the fruit &amp; vegetables production technology.</p> <p>CO-4. Learn the scope &amp; importance of floriculture.</p>
<b>Computational Botany</b>	<p>CO-1.Students knows the scope &amp; importance of biostatistics.</p> <p>CO-2.Learn the scope and some basic commonly used terms like sampling, data, dispersion, population, central tendency etc.</p> <p>CO-3.Students knows how to apply statistical analysis to biological data for testing different hypothesis.</p>
<b>T.Y.B.Sc (Sem IV)</b>	
<b>Plant Physiology and Biochemistry</b>	<p>CO-1.Learn the scope and importance of plant physiology.</p> <p>CO-2.Learn the process of respiration, growth and developmental process of plant.</p>

	CO-3. Understand the biochemistry of cell.
<b>Plant Ecology and Biodiversity</b>	CO-1. Learn the biotic and abiotic components of ecosystem. CO-2. Know the diversity of various groups of plant kingdom. CO-3. Acquaint with the plant community & ecological adaptation in plants. CO-4. Learn the scope, importance and management of biodiversity.
<b>Plant Pathology</b>	CO-1. Know the scope and importance of plant pathology. CO-2. Acquaint with the disease cycle and disease development. CO-3. Understand the effect of plant diseases on economy of crops. CO-4. Know the methods of studying plant diseases. CO-5. Acquaint with the prevention and control measures of various plant diseases.
<b>Medicinal and Economic Botany</b>	CO-1. Understand the importance of pharmacognosy. CO-2. Learn the cultivation, collection, processing & importance of various herbal drugs. CO-3. Know the scope of economic botany. CO-4. Acquaint with the concept of Ayurvedic pharmacy.
<b>Plant Biotechnology</b>	CO-1. Learn the fundamental of recombinant DNA technology. CO-2. Understand the tissue culture techniques. CO-3. Acquaint with the role of microbes in agriculture, medicine & industry. CO-4. Learn the fermentation technology. CO-5. Know the concepts of bioinformatics, genomics & proteomics.
<b>Plant Breeding and Seed Technology</b>	CO-1. Learn the scope & importance of plant breeding. CO-2. Aware about the techniques of production of new superior crop varieties. CO-4. Learn the process of hybrid variety, development & their release. CO-5. Learn about the various seed germination, processing, production methods.

## S.Y.B.Sc 2020-2021

The syllabus of SYBSC Botany for Choice based Credit System (CBCS) to be implemented from 2020-2021

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