

B.SC. Botany

COURSE OUTCOME

I SEM

PAPER	PAPER NAME	OUTCOME
I	Bio-diversity (Microbes, Algae, Fungi and Archegoniate). (Theory + Practical)	<p>It enables students about basics of biodiversity from microbes to gymnosperms. It helps them to sharpen their concepts of biodiversity around them.</p> <p>Lab. Course- learn the microscopic techniques, staining procedures, external, internal structure of cryptogams and phanerogams</p>

II SEM

PAPER	PAPER NAME	OUTCOME
II	Plant Ecology and Taxonomy (Theory + Practical)	<p>Students learn about the interaction between biotic and abiotic components of the environment. They will acquire knowledge of concept of energy flow in the eco system, different types of pollution.</p> <p>They get familiar with external structure, habit, habitat of plants, taxonomical hierarchy, ICN nomenclature, Herbarium preparation etc.</p> <p>Lab. Course- understand morphological and reproductive characters of different plant families.</p> <p>Practically students able to find out the ecological parameters such as plant species distribution, abundance and density in a</p>

		defined area by quadrature method.
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III SEM

PAPER	PAPER NAME	OUTCOME
III	Plant Anatomy and Embryology (Theory + Practical)	<p>Students get knowledge regarding anatomical peculiarities amongst different types of plant cells and tissues.</p> <p>They also learn structure, function of reproductive organs in plants, mechanism of seed formation, their dispersal and embryogenesis.</p> <p>Lab. Course- Students able to understand the internal structure of monocot and dicot (stem, root and leaf) through section cutting/ permanent slides. They also get knowledge of internal structure of anther, types of ovules and isolation of endosperm.</p>

IV SEM

PAPER	PAPER NAME	OUTCOME
IV	Plant Physiology and Metabolism (Theory + Practical)	<p>Students understand important physiological activities in the plant (like photosynthesis, transpiration, ascent of sap etc.) which are essential to sustain life.</p> <p>It also enhances their knowledge about micro and macronutrients which are essential for the growth and development of plants.</p> <p>Lab. Course- Students gain knowledge of different physiological process of plants through their performance like separation of plant pigment through paper chromatography, plasmolysis, osmosis, effect of different factors on transpiration, photosynthesis, respiration etc.</p>

V SEM

PAPER	PAPER NAME	OUTCOME
V	Genetics and Plant Breeding (Theory + Practical)	<p>The paper develops mathematical approach amongst the students through Mendelian ratio (mono, di & trihybrid crosses) and chi-square test. Gives knowledge of principles of heredity, genetic disorders, mutation, cytoplasmic inheritance and sex linked inheritance.</p> <p>It also boosts up their knowledge regarding different tools and techniques of plant hybridization to get hybrids which is helpful to raise the crop production and improvements.</p>

		<p>Lab course- working out problems related to genetics.</p> <p>Students learn the techniques of emasculation, crossing and bagging.</p>
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VI SEM

PAPER	PAPER NAME	OUTCOME
VI	<p>Economic Botany and Biotechnology</p> <p>(Theory + Practical)</p>	<p>Students learn about Ethnobotanical important plant diversity to human kind and other animals.</p> <p>It also provides an opportunity to hands on important biotechnological instruments and techniques like centrifugation, tissue culture, gel electrophoresis, blotting techniques etc.</p> <p>Lab course- Students get knowledge of economically important plants and their products.</p> <p>Students will be able to learn the scope of plant tissue culture, DNA markers and blotting techniques.</p>

SKILL ENHANCEMENT COURSES (FROM III SEM TO VI SEM)

III, IV & V SEM

PAPER	PAPER NAME	OUTCOME
Skill Enhancement Course	Plant Diversity and Human Welfare	The paper makes students aware about biodiversity and its conservation through R ³ methods (Reduce, Reuse & Recycle).

VI SEM

PAPER	PAPER NAME	OUTCOME
Skill Enhancement Course	Biofertilizers	The study helps the students for their self-employment, gives idea of eco-friendly & low-cost fertilizers. It gives information regarding adverse effects of chemical fertilizers. Promote the value of organic products and also share information regarding organic farming and waste management.