Shivraj College, Gadhinglaj

Department of Botany

Program Outcome (POs), Program Specific Outcome (PSOs) and Course Outcome (COs)

Program Outcome (POs)

1. Promotion of self study which enhance the ability to observe accurately and objectively.
2. The course medium is in english. interaction with the students is also effective.
3. Student interact with the social activist in relation with maximum usefulness of biofertilizers.
4. Student are made aware of pollution problems and waste management and the importance of green environment.
5. Apply ethical principles and count to environmental ethics and responsibilities and norms of the biodiversity conservation.
6. The course highlighted to conserve and study the suitable development.

Program Specific Outcome (PSOs)

1. They could get knowledge about the different groups of plants
2. They could understand the anatomical and reproductive growth in plants
3. Students could be familiar with different methods used to study the plants
4. They can understand correlation between plants and environment
5. Collect knowledge about applications of plants in daily use
6. They can understand metabolism in plants and their role in plant productivity.
7. They could learn different technology and their applications in Agriculture

Course Outcome(COs)

B.Sc. I , SEM. I

Paper I –DSC-13A, Diversity of microbes ,Algae and fungi

1. Understand different groups of organisms
2. Students will be well versed with morphology and reproduction in lower organisms
3. Learn use of lower organisms in daily life
4. Skill development in the methods of study of lower organisms

Paper II –DSC-14A - Biodiversity of archegoniate- Bryophytes ,Pteridophytes and Gymnosperms

1. Knowledge will be gathered on general characters and classification of Bryophytes
2. They will understand life cycles of archegoniates
3. Diversity and distribution of Archegoniates
4. Understand role of archegoniates in ecosystem

B.Sc. I , SEM. II

Paper III –DSC-13B, Plant Ecology

1. Understanding various concept of Ecology
2. They could differentiate role abiotic and biotic factors in Ecology
3. The students can understand the process of plant succession

4. They could study the working mechanism of Ecosystem
5. They get the knowledge of interaction between living and nonliving things

Paper II –DSC-14B – Plant Taxonomy

1.They will understand concept of Taxonomy and plant nomenclature.
2. Students will understand about ICNB
3. They can acquire the Knowledge about herbarium techniques
4 . They could collect information about Botanical Gardens and their importance
5. They will be trained in plant classification

B.Sc. II , SEM. III

Paper V –DSC-C13 –Embryology of Angiosperms

1. Understand reproductive structures in plants
2.They could learn process of gametogenesis in plants
3. Learn pathway of embryo and endosperm development
4.Study different modes of embryo development and their role in plant propagation

Paper VI –DSC-C14 –Plant physiology

1. Learn the process of water and plant relation
2.They will understand plant nutrients and their role in plants
3. Learn plant growth process
4.Study different types of plant growth regulators and their practical use
5. They get knowledge about process of photosynthesis and its use in agriculture

B.Sc. II , SEM. IV

Paper VII , DSC-D13 –Plant anatomy

1. Understand anatomical structures in plants
2.They could learn methods of anatomical study of plants
3. Learn about anatomical growth and abnormality
4. Gather knowledge of tissue systems and their role in plant

Paper VIII –DSC-D14 –Plant Metabolism

1. Learn different metabolic path ways in plants
2.They will knowledge about enzymes and its mechanism of action
3. Learn mechanism of nitrogen fixation in plants
4.Understand mechanism of respiration in plant
5. They get knowledge about process of seed germination and its use in agriculture

B.Sc. III, Sem. – V

Paper –IX, Biology of vascular pants and paleobotany

1. Learn life cycles of different algae.
2. Get knowledge about reproduction and economic importance in Fungi
3. Learn occurance , morphology , reproduction and economic importance in Bryophytes
4. Study process of fossilization
5. Study geological time scale and applications of paleobotany

Paper –X, Genetics and analytical techniques in plant science

1. Study concept of sex determination
2. Learn quantitative inheritance
3. Get knowledge about population gegetics
4. Study extrachromosomal inheritance
5. Understand chromosomal variations and its effect
6. Be trained different analytical techniques such as microscopy, chromatography ,micrometry and so on.

Paper –XI, fundamentals of plant physiology and ecology

1. Get knowledge about mineral nutrients and nutrition
2. Study nitrogen metabolism in plants
3. Study mechanism of photosynthesis and respiration
4. Understand concept of population ecology
5. Study of ecosystem and interrelationship between different components

Paper –XII, Plant Biochemistry

1. Study carbohydrate metabolism and significance
2. Learn lipid metabolism
3. Understand the process of protein synthesis and its metabolism
4. Study different nucleic acids

B.Sc. III, Sem. - VI

Paper –XIII, Biology of Vascular Plants

1. Study of c and economic importance of Pteridophytes.
2. Get knowledge about Evolutionary significance and Evolutionary significance.
3. Study Phylogeny of angiosperms, classification and Modern Taxonomy.
4. Understand concept of flower as a modified shoot.
5. Study mechanism of pollination and fertilization.
6. Get knowledge about plat Anatomy, theories and tissue system.

Paper – XIV, Microbiology and Plant Pathology

1. Study Methods in Microbiology, industrial application.
2. Get knowledge about Bacterial genome, DNA and RNA viruses.
3. Study classification, Prevention and control of plant diseases.
4. Get knowledge about Role of quarantine.
5. Study of Plant diseases on the basis of pathogen.

Paper –XV, Plant breeding, Biostatistics, Ethnobotany and Horticulture

1. Study aims, objectives and methods of plant breeding.
2. Study scope, objective, methodology of Ethnobotany.
3. Get knowledge about Role of Ethnobotany in modern medicine.
4. Study Biostatistics, test of significance
5. Get knowledge about gardening and ornamental plants.
6. Be trained in Plant Nursery Management.

Paper –XVI, Molecular Biology and Biotechnology

1. Study historic perspective, Replication of DNA and Operon Model.
2. Learn recombinant DNA technology.
3. Know the practical applications of tissue culture.
   Understand methodology of plant tissue cultu