

DEPARTMENT OF BOTANY
S.D.Women's College, Rajgangpur
BOTANY (B.Sc)

1. PROGRAMME OUTCOME (PO) :-

PO-1: CRITICAL THINKING: - Apply the knowledge of biology to make scientific queries and enhance the comprehension potential.

PO-2: EFFECTIVE COMMUNICATION: - Successful transfer of scientific knowledge both orally and writing.

PO-3: SOCIAL INTERACTION: - Functions as an individual as a member of a leader to perform a task in classroom situation and during field study.

PO-4: EFFECTIVE CITIZENSHIP: - Responsible for learning develop honesty in work and respect for self and others.

PO-5: ETHICS: Convey and practice social, environmental and biological ethics.

PO-6:- ENVIRONMENT AND SUSTAINABILITY: - Insist the significance of conserving a clean environment for perpetuation and sustainable development.

PO-7:- SELF – DIRECTED AND LIFE LONG LEARNING: - study incessantly by self to cope with growing competition for higher studies and employment.

2. PROGRAMME SPECIFIC OUTCOMES (PSO):-

PSO-1: Educate students about plant science, basic concepts of the plant group, their metabolism, and components at the molecular level, biochemistry, taxonomy and ecology.

PSO-2: Inculcate strong fundamentals on modern and classical aspects of botany.

PSO-3: Build life skills in edible mushroom, biofertiliser production, greenhouse maintenance and seed technology through value added courses.

PSO-4: Create platform for higher studies in Botany.

PSO-5: Facilitate the students to take up successful career in Botany.

3. COURSE OUTCOMES (COS):-

I-SEMESTER:

CORE-1: MICROBIOLOGY AND PHYCOLOGY

Understand the microbial world and algae.

CORE-2: BIOMOLECULES AND CELL BIOLOGY

A detailed idea about cell and its parts as well as the biomolecules present in the cell.

II-SEMESTER:

CORE-3: MYCOLOGY AND PHYTOPATHOLOGY :

Understand structure, nutrition , reproduction of fungi and also different plant diseases caused due to virus , bacteria , mycoplasma and fungi and its control measures.

CORE- 4: ARCHEGONIATES:

Understand the diversity of plants related to Bryophytes, Pteridophytes and Gymnosperms. Also student have idea about palaeobotany.

III-SEMESTER:**CORE-5: ANATOMY OF ANGIOSPERMS:**

Understanding the internal structure of different parts of the plants and their functions.

CORE-6: ECONOMIC BOTANY:

Understanding the origin, cultivation and economic importance of cereals , legumes , spices , oil , drugs , woods etc..

CORE- 7: GENETICS

Understanding gene, gene mutation, Mendelian genetics , population and evolutionary genetics.

IV-SEMESTER:**CORE-8: MOLECULAR BIOLOGY:**

Understanding in detail about Nucleic acids, DNA replication and mechanism of protein synthesis.

CORE- 9: PLANT ECOLOGY AND PHYTOGEOGRAPHY:

Understanding the concept about environment and its function as well as its phytogeography.

CORE-10 :- PLANT SYSTEMATICS :

Study about plant classification , Nomenclature and Phylogeny of Angiosperms. Descriptive studies of different families of Angiosperms.

V-SEMESTER:**CORE-11: REPRODUCTIVE BIOLOGY OF ANGIOSPERMS:**

Understanding the stages of sexual reproduction and life cycle of Angiosperms.

CORE-12 : PLANT PHYSIOLOGY :

Understanding the different physiological process such as nutrient uptake , plant growth regulators , Mechanism of flowering etc..

DSE-I: ANALYTICAL TECHNIQUES IN PLANT SCIENCE

Understanding the analytical techniques such as microscopy , centrifugation , spectrometry , chromatography etc..

DSE-II: BIostatISTICS :

Understanding different statistical methods and interferences .

VI-SEMESTER:

CORE-13: PLANT METABOLISM:

Understanding carbohydrate , lipid and nitrogen metabolism in plants.

CORE- 14: PLANT BIOTECHNOGY:

Understanding plant tissue culture , recombinant DNA technology and various applications of biotechnology in agriculture.

DSE-III: HORTICULTURAL PRACTICES AND POST HARVEST TECHNOLOGY

DSE-IV: - DISSERTATION/PROJECT

To learn latest technology and application in the field of Botany.