**DEPARTMENT OF BOTANY**

**COURSE OUTCOME**

**SEM I**

**Course code: BC201T**

**Core Course I: Microbiology and Phycology**

**Objective:** The objective of this course is to provide knowledge to the students on various forms of microbes and algae - their characteristics and economic importance.

**Outcome:** Students will gain knowledge about different groups of plants starting from lower groups like- Algae, bacteria and virus.

**Course code: BC202T**

**Core Course II: Biomolecules and Cell Biology**

**Objective:** The objective of this course is to expose the students on molecular organizations life and also discusses cellular and molecular processes of life.

**Outcome:** The students will gain knowledge about the biomolecules and different cell organelles and the different types of cell division.

**GENERAL ELECTIVE (GE1): Biodiversity (Microbes, Algae, Fungi, Lichen and Archegoniate)**

**Objective:** The objective of this course is to expose the students to different forms of plant life

**Outcome:** Knowledge about different groups of plants starting from lower groups (eg. Algae, Fungi, Bryopyhtes and Pteridophytes) and higher group (Gymnosperms and Angiosperms) and also know the key features for the identification of plants.

**SEM II:**

**Course Code: BC203T**

**Core Course III: Mycology and Phytopathology**

**Objective:** The objective of this course is to expose the students on the fungal world, different fungal diseases; their economic importances etc.

**Outcome:** Knowledge on different kinds of fungi, allied fungi and different kinds of diseases related to plants will be gained.

**Course Code: BC204T**

**Core Course IV: Archegoniate**

**Objective:** The objective of this course is to expose the students on Bryophyte, Gymnosperms and Fossil Plants

**Outcome:** Students will know about the lower plants which are alive or in fossil condition from lower to higher group.

**GENERAL ELECTIVE (GE2): Plant Physiology and Metabolism**

**Objective:** The objective of this course to expose about the different physiological and metabolic pathways within a plant.

**Outcome:** Students will get knowledge on photosynthetic pathways, respiration process in plants along with different biotic and abiotic factors which will affect the pathways.

**SEM III**

**Course Code: BC305T**

**Core Course V: Anatomy of Angiosperms**

**Objective**: The objective of this course is to expose the students on the structural and anatomical organizations of plant tissues and their development

**Outcome:** Students will know the different parts and layers present in each and every parts of plants. The different functions carried out by different parts of the plants and their relation to various climatic conditions.

**Course Code: BC306T**

**Core Course VI: Economic Botany**

**Objective**: The objective of this course is to expose the students on various economically important plants and plant products

**Outcome:** The student will gain knowledge about the economically important plants present near and there areas and their cultivation process. This will help the students in their future.

**Course Code: BC307T**

**Core Course VII: Genetics**

**Objective**: The objective of this course is to impart knowledge of the principles of heredity and different mechanisms of inheritance

**Outcome:** Students will be knowledged on the hereditary products present in plants and their flow from one generation to other

**GENERAL ELECTIVE (GE3): Plant Anatomy and Embryology**

**Objective:** The objective of this course is to expose the students to the types of plant tissues their arrangement and also to plant reproduction

**Outcome:** The students will gain knowledge on the origin of the plants. The cells from which a plant developed to a full grown plant. Origin of different parts of a plant and their anatomy and their relation with other will be known.

**SEM IV**

**Course Code: BC408T**

**Core Course VIII: Molecular Biology**

**Objective:** The objective of this course is to expose the students to Biological Macromolecules and various processes involved with these macromolecules

**Outcome:** Molecular structure of bio-molecules, their functions, their origin all can be known after study of this paper.

**Course Code: BC409T**

**Core Course IX: Plant Ecology and Phytogeography**

**Objective**: The objective of this course is to expose the students to interaction of plant with its surroundings and also the geographic distribution of different plants

**Outcome:** Students will gain knowledge about the ecological conditionwhich surrounds us and the relation of environment with us. The ecological condition which also depends on the different geographic condition of the earth which also affect the life style of each and every organism present in our world.

**Course Code: BC410T**

**Core Course X: Plant Systematics**

**Objective:** The objective of this course is to expose the students to identification, classification and nomenclature of higher plants

**Outcome:** Students can identify all the plants which surround us along with their economic and medicinal values. While students can identify a plant they can gain knowledge on the properties and importance of the specific plants.

**GENERAL ELECTIVE (GE4): Plant Ecology and Taxonomy**

**Objective**: The objective of this course is to expose the students to interaction of plant life with the surroundings and also to identification, classification and nomenclature of plants

**Outcome:** Students can identify the plants present in our surroundings. Classification of these plants and nomenclature and their relation with each other can also be known.

**SEM V**

**Course Code: BC511T**

**Core Course XI: Reproductive Biology of Angiosperms**

**Objective:** The objective of this course is to expose the students to the process and mechanisms of plant reproduction

**Outcome:** Students can gain knowledge on the different reproductive procedures from lower to higher plants groups. Different kinds of reproductive structure, spore and seeds can be identified in different plants. The external factors which are related to reproduction also can be known.

**Course Code: BC512T**

**Core Course XII: Plant Physiology**

**Objective**: The objective of this course is to expose the students to different physiological processes in plant life

**Outcome:** Students will get knowledge on photosynthetic pathways, respiration process in plants along with different biotic and abiotic factors which will affect the pathways.

**DSE Course – I: Analytical Techniques in Plant Sciences**

**Objective :** The objective of this course is to expose the students to different techniques which can be used to study different Biological processes

**Outcome:** Different biological processes which are practically used for the fulfillment of the syllabus will be discussed in this section. Besides theoretical concepts practical knowledge can be achieved.

**DSE Course – II: Bioinformatics**

**Objectives**: The objective of this course is to expose the students to the application of computation tools in solving Biological problems

**Outcome:** For completion of course in Botany all students should also have the knowledge about the computational knowledge which is necessary for our practical knowledge.

**SEM VI**

**Course Code: BC613T**

**Core Course XIII: Plant Metabolism**

**Objective:** The objective of this course is to expose the students to various metabolic processes involved with plant life

**Outcome**: Students will get knowledge on photosynthetic pathways, respiration process in plants along with different biotic and abiotic factors which will affect the pathways.

**Core Course XIV: Plant Biotechnology**

**Objectives**: The objective of this course is to expose the students to application of modern tools and techniques in Biology

**Outcome**: Modern biotechnological studies which are necessary for the practical education are learned in this paper.

**DSE Course – IV: Industrial and Environmental Microbiology**

**Objectives:** The objective of this course is to expose the students to application of different microbes for industrial purposes and also their role in the environment

**Outcome:** Students will have the knowledge on the microbial world present in and within our body and environment and their role and relation with each other.

**DSE Course – VI: Natural Resource Management**

**Objectives**:The objective of this course is to expose the students to different natural resources and their management practices

**Outcome:** The natural resources which are available in our society and their uses and sustainable management of these resources can be known.

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