

# Course Outcomes (CO) of Programme Course (CBCS)

***Paper Code: BBOTCCRC 101***

***Title: Biodiversity***

**Course Outcomes (CO):** The whole course will have the following outcomes.

Upon successful completion of this course, students will be able to

- I. Students will realize that people are dependent on intact habitats that sustain the various organisms we need to produce food, medicines, clothing, and other materials.
- II. Understand key scientific concepts for species and ecosystem conservation.
- III. Understand and apply the concept of species of conservation interest/concern.
- IV. Identify ecological requirements and maintaining factors for priority species and ecosystems.

***Paper Code: BBOTCCRC 201***

***Title: Plant Ecology and Taxonomy***

**Course Outcomes (CO):** The whole course will have the following outcomes.

Upon successful completion of this course, students will be able to

- I. The students will know about the systematic position of Genera, Species and Families.
- II. The students develop knowledge about plant nomenclature
- III. They will be understanding the concept, types, development and functions of various ecosystems and their communication.
- IV. The various environmental factors governing these ecosystems are also clearly understood.
- V. They will be understanding the factors leading to Environmental degradation, their reasons and their impact on the Environment.
- VI. This knowledge can help to form strategies for conservation and sustainable management under the given legislative measures.

***Paper Code: BBOTCCRC 301***

***Title: Plant Anatomy and Embryology***

**Course Outcomes (CO):** The whole course will have the following outcomes.

Upon successful completion, student will be able to

- I. Students will be able to make connections between plant anatomy and the other major disciplines of biology.
- II. To identify and compare structural differences among different taxa of vascular plants.
- III. To know the structure and development of monocot and dicot embryos.
- IV. This will help them to understand how different plant tissue structures evolve and modify their functions with respect to their environment.

***Paper Code: BBOTSERT 304 (SEC)***

***Title: Biofertilizers***

**Course Outcomes (CO):** The whole course will have the following outcomes.

Upon successful completion of this course, the students will be able to

- I. Understand the role of microorganism in improving the fertility of soil and also in control the pest and other pathogens.
- II. Biofertilizers are biological preparations of efficient microorganisms that promote plant growth by improving nutrient acquisition.
- III. They enhance soil productivity by fixing atmospheric nitrogen, solubilizing soil phosphorus, and stimulating plant growth.

***Paper Code: BBOTCCRC 401***

***Title: Plant physiology and Metabolism***

**Course Outcomes (CO):** The whole course will have the following outcomes.

Upon successful completion of this course the students will be able to

- I. Students will learn the basic knowledge of stress adaptations in biological systems.
- II. They will learn molecular understanding of primary and secondary metabolic process.
- III. Students will be able to understand the various physiological life processes in plants

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- IV. They will also gain about the various uptake and transport mechanisms in plants and are able to coordinate the various processes. They understand the role of various hormones, signalling compounds, thermodynamics and enzyme kinetics. During the course students will gain knowledge about various mechanisms such as channel or transport proteins involved in nutrient uptake in plants.
- V. The student will enrich themselves with the phenomenon of metabolism of primary and secondary metabolites and their role in plants.
- VI. They are upgraded in analytical skills and instrumentation.

***Paper Code: BBOTSSERT404***

***Title: Herbal Technology***

**Course Outcomes (CO):** The whole course will have the following outcomes: After successful completion of the course, students will be able to

- I. Understand raw material as source of herbal drugs from cultivation to herbal drug product.
- II. Know the WHO and ICH guidelines for evaluation of herbal drugs.
- III. Know the herbal cosmetics, natural sweeteners, nutraceuticals.

***Code: BBOTDSRC 1 (DSE 1)***

***Paper Title: Economic Botany and Biotechnology***

**Course Outcomes (CO):** The whole course will have the following outcomes:

- I. To explain the taxonomic diversity of useful plants. plants.
- II. To acquire an increased awareness and appreciation of legumes and millets.
- III. Concepts, tools and techniques related to in vitro propagation of plants.
- IV. Different methods used for genetic transformation of plants, use of Agrobacterium as a vector for plant transformation, components of a binary vector system.
- V. Various case studies related to basic and applied research in plant sciences using transgenic technology.

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- VI. Principles and methods used for phenotypic, genetic and molecular analysis of transgenic plants.

***Paper Code: BBOTSERT504 [SEC]***

***Title: Ethnobotany***

**Course Outcomes (CO):** The whole course will have the following outcomes:

Upon successful completion, the students will be able to

- I. Study the diversity of plants.
- II. Learn plant names, both scientific and local Micronesian name.
- III. Develop knowledge of the life cycle, reproduction, and general structure of plants.
- IV. Acquire an understanding of the importance of plants in our daily lives.

***Paper Code: BBOTDSRC 4 (DSE 4)***

***Title: Analytical Technique in Plant Science***

**Course Outcomes (CO):** The whole course will have the following outcomes:

Upon successful completion, the students will be able to

- I. Chemical analyses are an important tool in ensuring the quality, reliability and the best use of plant biomass.
- II. Analytical techniques can provide information about the chemical composition of biomass, characterize its properties and also determine the concentration of both organic and inorganic species in biomass.
- III. They will develop firm base for hardware, software, networking, processing of computers.
- IV. They are able to understand the designing and function of various databases and bioinformatic resources.
- V. They are able to select specific software and tools to solve certain biological problems with respect to Nucleotides and Proteins.

***Paper Code: BBOTSERT 604***

***Title: Nursery and Gardening***

**Course Outcomes (CO):** The whole course will have the following outcomes:

Upon successful completion, the students will be able to

- I. Gardening is educational and develops new skills including: Responsibility– from caring for plants. Understanding– as they learn about cause and effect (for example, plants die without water, weeds compete with plants) Self-confidence – from achieving their goals and enjoying the food they have grown.
- II. Most horticultural crops are grown in nurseries and then transplanted into the fields.
- III. The nursery improves germination and colonization, saves time, space, labour and facilitates maintenance.
- IV. A growth bed is defined as a prepared area of a nursery where seedlings are sown or where seedlings and cuttings are grown.

# Course Outcomes (CO) of Generic Elective Course (GE) (CBCS)

***Paper Title: Code: BBOTGEHC6 [GE]***

***Title: Plant Ecology and Taxonomy***

**Course Outcomes (CO):** The whole course will have the following outcomes: Upon successful completion, students will be able to

- I. The students will know about the systematic position of Genera, Species and Families.
- II. The students develop knowledge about plant nomenclature
- III. They will be understanding the concept, types, development and functions of various ecosystems and their communication.
- IV. The various environmental factors governing these ecosystems are also clearly understood.
- V. They will be understanding the factors leading to Environmental degradation, their reasons and their impact on the Environment.
- VI. This knowledge can help to form strategies for conservation and sustainable management under the given legislative measures.

***Title Code: BBOTGEHC 6A***

***Title: Plant physiology and Metabolism***

**Course Outcomes (CO):** The whole course will have the following outcomes: Upon successful completion, students will be able to

- I. Students will learn the basic knowledge of stress adaptations in biological systems.
- II. They will learn molecular understanding of primary and secondary metabolic process.
- III. Students will be able to understand the various physiological life processes in plants
- IV. They will also gain about the various uptake and transport mechanisms in plants and are able to coordinate the various processes. They understand the role of various hormones, signalling compounds, thermodynamics and enzyme kinetics. During the course students will gain

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knowledge about various mechanisms such as channel or transport proteins involved in nutrient uptake in plants.

- V. The student will enrich themselves with the phenomenon of metabolism of primary and secondary metabolites and their role in plants.
- VI. They are upgraded in analytical skills and instrumentation.