



G.VENKATASWAMY NAIDU COLLEGE (Autonomous), KOVILPATTI.

Affiliated to Manonmaniam Sundaranar University – Tirunelveli.

(Re-Accredited with 'A' Grade by NAAC)

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli).

(Under the Management of The Kuppasamy Naidu Charity Trust for Education and Medical Relief, Coimbatore-37)

Programme Outcomes - Department of Botany (UG)

GPO No.	Programme Outcomes
PO1	Students will be able to remember, comprehend, apply, analyze and synthesize the core concepts in botany, like Evolution, Biodiversity, Structure and function, information flow, exchange, and storage, Pathways and transformations of energy and matter.
PO2	Students will develop the ability to apply the process of science- Understand defining characteristics of the process of science; practice the skills of the scientific method. Engage in research projects. Apply quantitative skills to biological problems. Understand the role of uncertainty in science.
PO3	Students will be able to communicate and collaborate within and outside of biology. Tap into the interdisciplinary nature of science.
PO4	Students should understand the relationship between science and society. Evaluate the impact of science on society. Evaluate the ethical implications of science. Explore how science is applied in a social context.
PO5	Lifelong Learning: Acquire the skill to be an independent lifelong learner embracing real-time changes in the socio-technological context, promoting continuous development and improvement of the knowledge and skills needed for employment and personal fulfillment.



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Programme Specific Outcomes - Department of Botany (UG)

PSO No.	Intended Programme Specific Outcomes
PSO1	Understand and Identify the different groups of botany and appreciate plant diversity.
PSO2	Analyze, apply the methodologies and techniques of the current developments in the different areas of Botany.
PSO3	Integrate the knowledge acquired in botany to solve problem, take real time decisions and innovate, while working with plants and share social and environmental consciousness with their fellow citizens.



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Course Outcome - Department of Botany

B.Sc., Botany

First Semester

Core - 1 Phycology & Bryology (U20BO101)

CO No.	Course Outcome
CO1	remember and understand the unique and general features of Algae and Bryophytes and familiarize it
CO2	illustrate the general characters
CO3	identify the external morphology, internal structure and reproduction of different types of Algae and Bryophytes
CO4	examine the possible applications of Algae
CO5	predict the Economic Importance of Algae & Bryophytes

Core - 2 Plant Anatomy and Micro technique (U20BO102)

CO No.	Course Outcome
CO1	Remember and understand and the Individual Cells and Tissues Simultaneously.
CO2	Discuss the Structural Adaptations in Plants Growing in Different Environment.
CO3	apply different micro techniques to identify the cell
CO4	test the Nodal Anatomy and Epidermal tissue system in plants.
CO5	Devise Techniques to Preserve and Study Plant Materials.



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Second Semester

Core-3 Pteridophytes, Gymnosperm & Paleobotany (U20BO203)

CO No.	Course Outcome
CO1	remember and describe the general characters and classifications in lower forms of plants- Pteridophytes and Gymnosperms.
CO2	examine the distribution, morphology, anatomy, reproduction and life cycle of types mentioned in the syllabus
CO3	analyze the economic importance of Gymnosperms and Pteridophytes
CO4	evaluate the significance of Paleo botany and its applications.
CO5	Create, select, and apply appropriate techniques, resources, and modern instruments and equipments to identify the fossils

Core-4 Microbiology, Mycology, Lichenology & Plant Pathology (U20BO204)

CO No.	Course Outcome
CO1	understand the world of microbes, fungi and lichens.
CO2	identify common plant diseases and device control measures.
CO3	Understand the economic and pathological importance of bacteria and Fungi.
CO4	Evaluate the ecological significance of lichens.
CO5	Create and appreciate the adaptive strategies of the microbes, fungi and lichens.



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Core Lab-1 Phycology, Bryology, Anatomy, Microtechniques, Pteridophytes, Gymnosperms, Paleobotany, Microbiology, Mycology, Lichenology & Plant Pathology (U20BO2P1)

CO No.	Course Outcome
CO1	remember and Understand the unique and general features of Algae and Bryophytes and familiarize it.
CO2	identify the external morphology, internal structure and reproduction of different types of algae and bryophytes
CO3	discuss the Structural Adaptations in Plants Growing in Different Environment.
CO4	examine the classification, distribution, morphology, anatomy, reproduction and life cycle of pteridophyte types mentioned in the syllabus
CO5	create, select, and apply appropriate techniques, resources, and modern instruments and equipments for anatomical structure

Third Semester

Core-05 Developmental Botany and Embryology of Angiosperms (U20BO305)

CO No.	Course Outcome
CO1	remember and Able to describe a typical flower
CO2	illustrate the embryo sac of a flower
CO3	analyze the various types of endosperms with their importance
CO4	assess the post fertilization changes in flower
CO5	formulate the cultural technique for anther



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Employability Enhancement:1 Preservation of fruits and vegetables

(U20BO3EEA)

CO No.	Course Outcome
CO1	recall the concept of food processing and Preservation
CO2	apply the technique on preparation of various food using the natural and chemical preservatives
CO3	explain the methods of Canning Technique.
CO4	summarize the preservation method on drying of fruits
CO5	prepare canned food from fruits

Employability Enhancement:2

Bio resources (U20BO3EEB)

CO No.	Course Outcome
CO1	recognize Bio fertilizer and its uses
CO2	apply the solid waste recycling method
CO3	analyze the pros and cons of bio pesticides
CO4	estimate the uses of some medicinal plants
CO5	design a new energy plantation technique.

Fourth Semester

Core-06

Cell and molecular biology (U20BO406)

CO No.	Course Outcome
CO1	recall the mechanism of enzyme action
CO2	discover the biological role of cholesterol
CO3	explain the reaction of carbohydrates
CO4	asses fat soluble vitamins
CO5	compile the base pairing scheme of DNA - RNA



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Core 7 Economic Botany and Plant Resource Utilization (U20BO407)

CO No.	Course Outcome
CO1	analyses the origin of cultivated plants
CO2	calculate the uses of cereals ,Pulses and spices
CO3	differentiate oil and fats of plant origin
CO4	estimate the uses of black pepper in day to life
CO5	design the new cultivation methods for cotton

Core Lab-2 Developmental botany and embryology of Angiosperm, Bio molecules and cell biology, Economic Botany and plant resource utilization (U20BO4P2)

CO No.	Course Outcome
CO1	examine the embryo structure and development
CO2	identify the internal structure , embryo formation, cell division, different types of embryo
CO3	explain the stages of cell divisions
CO4	assesses the Structural Adaptations in Plants
CO5	generalize the economic importance of plant resources.