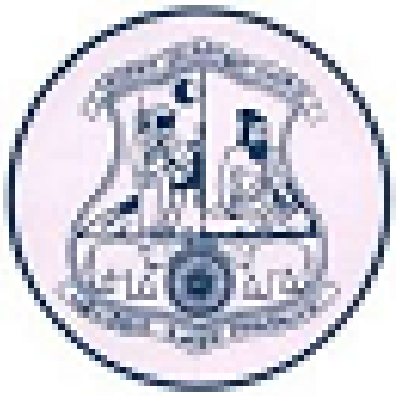
GOVERNMENT ARTS COLLEGE FOR MEN

(Autonomous)

NANDANAM, CHENNAI – 600 035.



DEPARTMENT OF BOTANY

COURSE OUTCOME FOR

M.SC. Degree Course in BOTANY

Semester System

(Two Year PG Degree Course)

CHOICE BASED CREDIT SYSTEM

Effective from the Academic Year

2019 - 2020

GOVERNMENT ARTS COLLEGE FOR MEN (AUTONOMOUS), NANDANAM, CHENNAI - 600035.
COURSE: M.SC. BOTANY

OUTCOME

- ✓ To understand the diversity of plants and inter-relationships between different groups of plants
- ✓ To understand the structure and function of the different plant groups and to be able to identify problems in plant Physiology
- ✓ To be able to classify plants based on their structure and function and to trace the evolution
- ✓ To be able to understand plants on a Phylogenetic line
- ✓ To understand the fine structure molecular aspects of plant life
- ✓ To study the various applications of plants in Agriculture and industry
- ✓ To be able to apply the knowledge acquired in everyday life
- ✓ To be able to use the knowledge to find a vocation related to Botany

PART	COURSE	SUBJECT CODE	TITLE	OUTCOME
			SEMESTER I	
III	**CORE I**	196401	Plant biodiversity I –Algae and Bryophytes	To understand the Diversity of Lower like Algae and Bryophytes To be able to differentiate between these plant groups
III	**CORE II**	196402	Plant Biodiversity II – Fungi, Lichens and Pathology	To understand and differentiate Fungi and Lichens To understand the aspects of Plant Pathology To be able understand disease forecasting
III	**CORE III**	196403	Entrepreneurial Botany	To be aware of the uses of plants for business To understand the avenues for employment in Botany To be introduced to organic farming
III	**ELECTIVE 1**	196421	Phytochemistry and Pharmacognosy	To explain the developments in the field of pharmacognosy. To prepare and analyse the crude drugs for adulterants. To study the active ingredients in crude drugs.
III	**CORE 1V**	196404	Practical I	To get hands-on experience of identifying Lower plants
IV	**SOFT SKILL I**		SOFT SKILLS I	
			SEMESTER II	
III	**CORE V**	196405	Plant Biodiversity-III-Pteridophytes, Gymnosperms and Paleobotany	To understand the diversity of vascular plants like Pteridophytes and Gymnosperms To be able to distinguish between these groups To be able to see how plant species become extinct and identify the missing links
III	**CORE VI**	196406	Taxonomy of Angiosperms and Economic Botany	To recognise different systems of plant classification. To acquire knowledge on recent trends in plant taxonomy. To describe the salient features of the families given in the syllabus & economic importance
III	**ELECTIVE II**	196422	Microbial technology	To understand the techniques in microbiology To understand the importance of microbes in food, industry and environment
III	**EDC**	196441	Horticulture (for Zoology students)	To acquire the skill of construction and maintenance of gardening. To recognize the tools, fertilizers and irrigation methods employed in Gardening, Olericulture etc., To explain the preparation and application of vermicompost.
IV	**CORE VII**	196407	Practical II	To get hands-on training in identification of Pteridophytes and Gymnosperms To identify Angiosperm families To perform tissue culture protocols
IV	**SOFT SKILLS II**		SOFT SKILLS II	
			SEMESTER III	
III	**CORE VIII**	196408	Plant anatomy, Embryology and Microtechnique	To explain the classification of tissues and their characteristic features. To differentiate normal and anomalous secondary thickening. .To develop the skills involved in the preparation of permanent slides, whole mounts, smear etc.,
III	**CORE IX**	196409	Plant physiology, Biochemistry and Biophysics	To understand the chemical basis of life

				To understand the Fundamentals of Biophysics To understand the physiological processes in plants
III	**CORE X**	196410	Environmental Biology and Phytogeography	To understand the environment of plants To understand the role of ecosystem for maintening life To have an understanding of Biodiversity To have an introduction to the concept of remote sensing
III	**CORE XI**	196411	Practical III	To get hands-on training in Plant Anatomy, Embryology, Micrtoechniques, Physiology, Ecology and Biotechnology To perform tissue culture protocols
III	**ELECTIVE III**	196423	Plant Biotechnology and Nanotechnology	To understand Plant Biotechnology To understand plant tissue culture To get an insight into nanotechnology
III	**EDC**	196442	Herbal technology (for Zoology)	To understand use of plants as drugs To understand the Indian systems of Medicine To identify the medicinal plants and their uses
IV	**SOFT SKILLS III**		SOFT SKILL III	
SEMESTER IV				
III	**CORE XII**	196412	Cell and Molecular Biology and Bio-informatics	To explain the structure and functions cell organelles. To compare the structure and functions of Nucleic acids. To study protein synthesis. To describe different biological databases used in Bioinformatics.
III	**CORE XIII**	196413	Genetics, Plant Breeding and Evolution	To compare the Mendelian and Non -Mendelian inheritance. To demonstrate different plant breeding techniques. To discuss various theories proposed for evolution
III	**CORE XIV**	196414	Practical IV	To Provide hands-on experience in the, Cyto-genetics, Molecular Biology, Biometry, Genetics and Plant breeding
III	**CORE XV**	196415	Project	To instil the spirit of scientific inquiry and help students conduct scientific experiments
III	**ELECTIVE IV**	196424	Research Methodology	To identify the steps involved in a research. To acquire the skill of writing research article and thesis. To compare the principle and applications of different microscopes. To describe various separation and analytical techniques in biological science. To analyse the data obtained from sampling through suitable statistical test.
III	**ELECTIVE V (OR)**	196425	Ethnobotany and Conservational Biology (OR)	To recognise the importance of ethnobotany. To list the importance of biodiversity and conservation strategies. To identify the plants used in ethnobotanical practices
III	**ELECTIVE V**	196426	Forestry	To understand biodiversity and Principles of Forestry
IV	**SOFT SKILLS IV**		SOFT SKILLS IV	