B. Sc. Botany (General)
Programme Specific Outcome

❖ BOTG-Part I (Semester I & II)

- To get an elementary idea on microorganisms, Thallophytes, Cryptogams, spermatophytes with special reference to their morphology, anatomy, reproduction and economic importance.
- An elaborated knowledge of taxonomy and classification of angiosperm along with the phytogeography and ecology of different plant communities and their organization in ecosystem.

❖ BOTG-Part II (Semester III & IV)

- To get an elaborate idea of anatomical features of angiosperm, their types, and additional focus on the anatomical peculiarities, their modification and adaptive nature.
- A concise knowledge about embryology, specifically pollen morphology, pollination, fertilization, apomixis and polyembryony.
- A basic concept on plant physiological processes. A compact idea about nutrition, translocation, growth factors and growth regulators.
- Additional impact on skill enhancement course curriculum which provides a basic idea of floriculture and Mushroom culture technology. It includes the history, types, requirements, importance and future aspects that will help to socio economic upliftment.

❖ BOTG- Part III (Semester V & VI)

- To get an elementary idea about Plant breeding with special reference to its importance in agriculture, necessity in genetically modified crops for sustainable agriculture.

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- Get an illustration in medicinal botany which is selected as a part of skill enhancement course.
- It gives a detailed study of the history of medicinal botany, various systems from the ancient world. To learn about the necessity of conservation of medicinally important plants and also various chemical components important in medical biology.

B.Sc. BOTANY GENERAL

Subject	Course Objectives	Course Outcome
SEMESTER-I (DC/GE)		
Thallophyta (Fungi, Algae & Bryophyte)	✔ To get knowledge of different mode of organisation of various life form on Earth. ✔ To find how near the beginning form of life would have evolved following chemogeny. ✔ To know the habit, habitat and interaction of early life forms amongst themselves & amongst the environments.	✔ To find the ontogeny and phylogeny of thallophytes. ✔ Economic importance of different thallophyte like Algae, Fungi and Lichen. ✔ Role of Lichen and bryophytes as pioneer group of organisms. ✔ Role of lichen as Pollution Indicator ✔ Role of BGA as biofertilizer ✔ To observe the nature, role and extent of pathogenicity of fungal pathogens in plant science.
Vascular Cryptogams (Pteridophyte)	✔ To study about the plants, lack flowers but bearing food and water supply system. ✔ Authentication of evolutionary trend from thallophytes to non-flowering vascular supplying plant groups.	✔ Students will learn about the prime structure of vascular structures before the origin of xylem and phloem tissue known commonly. ✔ The plants proved their ability of advancement towards the affinity of phanerogams
Spermatophyta (Gymnosperm)	✔ To study about the highly organised plants producing seeds. ✔ To differentiate the gymnosperm and angiosperm on the basis of seed production. ✔ To study about the ancient plants and their organisation.	✔ Students will be able to understand the evolutionary trend of land plants. ✔ To learn about the concept of seed to mature and their concealment or non-concealment within fruit. ✔ To understand the economical perspective of the spermatophytes.
SEMESTER-II (DC/GE)		

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Taxonomy of Angiosperm	✔ Finding out the world flora of present and past including the history of fossils have been in demand years long. Coherent and universal system, identification, classification, nomenclature, documentation, plant diversity along with unique Latin names and evolutionary trends of plants are the summative idea of objects of plant taxonomy.	✔ It supports the modern phonetic methods of taxonomy from Adansonia Taxonomy. ✔ It also provides that how plants and humans started to share each other from the beginning of their origin on this earth. Grouping of plants needed for human benefits through taxonomic hierarchy
Plant Ecology	✔ Diversity in the ecological set up proving on nature. ✔ The plants interact with biotic and abiotic components in different mode of ecosystems in different weather and climatic effect purposefully representing live on the nature.	✔ It is helpful to prove in general the actual ecological structure present on the nature. ✔ The external factors dynamically interacting with the internal factors with all the living organisms justify with the different ecosystems.
SEMESTER-III (DC/GE)		
Anatomy	✔ To know the internal structure of different organisms. ✔ To relate the external characters of an organism with the internal characters. ✔ To gain the knowledge in respect to growth and development programme in different plant group. ✔ To know about cell, tissue and organ level of organisation in plant groups.	✔ You can draw the evolutionary relationship amongst different plant groups. ✔ Internal structure can help to explain ecological nature of environment. ✔ Help to understand relationship of growth and development in an organism. ✔ Vasculature of plant help to draw conclusion regarding water content of soil, humidity of air, Soil texture etc.
Embryology	✔ How spores are produced in different order. ✔ Mode of gamete formation in various order. ✔ To find different kind of Autogamy and Allogamy. ✔ To know interaction between pollen grain and pistil. ✔ To gain knowledge regarding the development of embryo and endosperm.	✔ Obtaining knowledge of various mode of pollen-pistil interaction. ✔ Knowing various reasons of Xenogamy. ✔ Factors affecting pollination and pollen tube development. ✔ Different form of embryo sac. ✔ Mode of embryo development and factors affecting it. ✔ Acquiring knowledge regarding apomixes and its application.
Skill Enhancement Course (SEC I)		
Floriculture	✔ To learn about the history of floriculture	✔ Students must be aware about the importance of floriculture.

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	✔ To know the general procedures of floriculture. ✔ To learn about the importance of floriculture and maintenance of floral diversity for gardening ✔ To learn the commercial perspective of floriculture	✔ This enhances the interest of students to know the major steps required in floriculture along with the history and its modernizations.
SEMESTER-IV (DC/GE)		
Plant Physiology & Metabolism	✔ The plants have the ability to prove its vigour and survive ability and which is the live example of various processes like photosynthesis respiration movement and locomotion etc. ✔ The physiological aspects of the plant have been possible to prove through lab experiments and also denoting their life processes.	✔ Substantially plants are the beginner of life and then animals evolved. How they sustain, activate and life run with their processes. ✔ Effectivity of the processes led their cultivation, production and fulfilment of demand
Skill Enhancement Course (SEC II)		
Mushroom Culture Technology	✔ To learn about the mushroom culture technology with special reference to its history. ✔ To know the importance of mushroom culture technology and also know some specific edible mushroom cultivation. ✔ To learn its commercial value	✔ Students will be able to familiarize with the edible mushroom cultivation with prior information of its history. ✔ Post-harvest management and storage of edible mushroom ✔ They know the importance of mushroom cultivation with special reference to its commercial value along with cost benefit ratio.
SEMESTER-V Discipline Specific Elective (DSE I – A 1)		
Plant Breeding and Biostatistics	✔ To learn to improve disease resistant variety. ✔ To learn how to develop drought and frost tolerant plant ✔ To develop GMO (Genetically Modified Organism) plants. ✔ Learning of principle methods to draw and relate different available data base information. ✔ To learn about date analysis of different experiments.	✔ Developing genetically superior plant groups. ✔ How breeders improve plant of desired characters and quality. ✔ Help to learn how to deal with different data of experimental results. ✔ Teach us to draw and design inference through statistical analysis.
Skill Enhancement Course (SEC III)		
Medicinal Botany	✔ To learn about the ancient systems of medical biology and the relation of plant.	✔ This course curriculum helps students to know the history of medicinal botany with special reference to the ancient systems like Ayurveda, Unani and many more.

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	✔ To know the importance of conservation of plant specifically medicinal plant. ✔ To know the future perspective of plant in the field of medicinal botany	✔ It helps to learn about the importance of conservation of medicinal plants and also to know the medicinally important compounds helpful for human health. ✔
SEMESTER-VI **Discipline Specific Elective (DSE II – A 2)**		
	✔	✔
Skill Enhancement Course (SEC IV)		
	✔	✔

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