

Office of the Principal GOVERNMET COLLEGE – GURUR

(Formerly Known as Government Naveen College Gurur) DISTRICT – BALOD (C.G.), INDIA Ph No : 07749 – 265461 Email : <u>gururgovernmentcollege@gmail.com</u> Website : <u>gcgurur.org.in</u>

Course Learning Outcomes of Botany in B.Sc (CBZ)

Program Level	Program Name	Class	Subject	Paper	Paper Name
U.G.	B.Sc (CBZ)	01st Year	Botany	O1st	Bacteria, Viruses, Fungi, Lichens and Algae

	Course learning outcome					
CO 01	Understand the fundamental concepts related to microbes, algae, fungi and embryophytes.					
CO 02	Analyze the discovery and general structure of viruses.					
CO 03	Examine the morphology and life-cycles of trentepohlia, ulva, kappaphycus, sargassum, turbinaria, grailaria, porphyra.					
CO 04	Evaluate the significance of fungi and its different types.					
CO 05	Analyze the anatomy and reproduction of Cycas and Pinus along with their ecological and economical importance.					

Program Level	Program Name	Class	Subject	Paper	Paper Name
U.G.	B.Sc (CBZ)	01st Year	Botany	02 nd	Bryophytes, Pteridophytes, Gymosperms and Palaeobotany

	Course learning outcome					
CO 01	Demonstrate an understanding of Bryophytes, Pteridophytes, and Gymnosperms.					
CO 02	Develop critical understanding on morphology, anatomy and reproduction of Bryophytes, Pteridophytes and Gymnosperms					
CO 03	Understanding of plant evolution and their transition to land habitat.					
CO 04	Demonstrate proficiency in the experimental techniques and methods of appropriate analysis of Bryophytes, Pteridophytes, Gymnosperms.					

Program Level	Program Name	Class	Subject	Paper	Paper Name
U.G.	B.Sc (CBZ)	02 nd Year	Botany	O1st	Plant Taxonomy, Economic Botany, Plant Anatomy and Embryology

	Course learning outcome
CO 01	Comprehend the basic concepts of plant ecology and taxonomy and botanical nomenclature, Analyze the characteristics of different plant communities.
CO 02	Examine the structure and functions of eco-system.
CO 03	Evaluate the significance of herbarium.
CO 04	Analyze the implications of biometrics, numerical taxonomy and cladistics
CO 05	Understand the fundamental concepts of plant anatomy and embryology.
CO 06	Analyze and recognize the different organs of plant and secondary growth
CO 07	Evaluate the structural organization of flower and the process of pollination and fertilization.
CO 08	Understand core concepts of biotic and abiotic.
CO 09	Classify the soils on the basis of physical, chemical and biological components.
CO10	Analysis the phytogeography or phytogeographical division of India.
CO11	Evaluate energy sources of ecological system.
CO12	Assess the adaptation of plants in relation to light, temperature, water, wind and fire.
CO13	Conduct experiments using skills appropriate to subdivisions.

Program Level	Program Name	Class	Subject	Paper	Paper Name
U.G.	B.Sc (CBZ)	02 nd Year	Botany	02 nd	Ecology and Plant Physiology

	Course learning outcome					
CO 01	Understand Water relation of plants with respect to various physiological processes.					
CO 02	Explain chemical properties and deficiency symptoms in plants.					
CO 03	Classify aerobic and anaerobic respiration.					
CO 04	Explain the significance of Photosynthesis and respiration.					
CO 05	Assess dormancy and germination in plants.					

Program Level	Program Name	Class	Subject	Paper	Paper Name
U.G.	B.Sc (CBZ)	03 rd Year	Botany	01st	Plant Physiology, Biochemistry and Biotechnology

	Course learning outcome
CO 01	Understand Water relation of plants with respect to various physiological processes.
CO 02	Explain chemical properties and deficiency symptoms in plants.
CO 03	Classify aerobic and anaerobic respiration.
CO 04	Explain the significance of Photosynthesis and respiration.
CO 05	Assess dormancy and germination in plants
CO 06	Comprehend different fundamental concepts related to plant biochemistry like plant cell organelles, photosynthesis, respiration and lipid metabolism etc.
CO 07	Analyze the structure and properties of various enzymes.
CO 08	Evaluate the process of ATP Synthesis, nitrogen metabolism and lipid metabolism.
CO 09	Understand different causes of environmental pollution and their remedies.
CO10	Analyze microbiology of waste water and its implications.
CO11	Examine the role of immobilized cells/enzymes in treatment of toxic compounds.
CO12	Reflect upon various sustainable environmental protection strategies.
CO13	Evaluate the implications of international legislations, policies for environmental protection.

Program Level	Program Name	Class	Subject	Paper	Paper Name
U.G.	B.Sc (CBZ)	03 rd Year	Botany	02 nd	Ecology and Utilization of Plants

	Course learning outcome
CO 01	Understand core concepts of Economic Botany and relate with environment, populations, communities, and ecosystems.
CO 02	Develop critical understanding on the evolution of concept of organization of apex new crops/varieties, importance of germplasm diversity, issues related to access and ownership.
CO 03	Develop a basic knowledge of taxonomic diversity and important families of useful plants.
CO 04	Increase the awareness and appreciation of plants ${\mathfrak F}$ plant products encountered in everyday life.
CO 05	Appreciate the diversity of plants and the plant products in human use.
CO 06	Understand core concepts of biotic and abiotic.
CO 07	Classify the soils on the basis of physical, chemical and biological components.
CO 08	Analysis the phytogeography or phytogeographical division of India.
CO 09	Evaluate energy sources of ecological system.
CO10	Assess the adaptation of plants in relation to light, temperature, water, wind and fire
CO11	Conduct experiments using skills appropriate to subdivisions.

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H. O. D. Department of Botany Government College Gurur Dist. Balod (C.G.)

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Co-ordinator IQAC Government College Gurur Dist. Baled (C.G.)

Principal Govt. College, Guru Dist. - Baled (C.G.)