



**Programme Outcomes (PO),
Programme Specific Outcomes (PSO)
And Course Outcomes (CO)**

Department of Botany



Govt. College Jhandutta Distt. Bilaspur (H.P.)

Prepared by:

**Anju Bala Sharma
Principal
Government College Jhandutta**

Programme Outcomes (PO), Programme Specific Outcomes (PSO) and Course Outcomes (CO) for **B.Sc. Botany**.

Department of Botany	After successful completion of three-year degree program in botany a student should be able to;
Programme Outcomes (PO) B.Sc. (Botany)	<p>PO-1. Understand Plant Diversity and its importance in the maintenance of ecological balance.</p> <p>PO-2. Learn to carry out practical work, in the field and in the laboratory, interpreting plant morphology and anatomy, plant identification, vegetation analysis techniques.</p> <p>PO-3. Apply the knowledge of basic science, life sciences and fundamental process of plants.</p> <p>PO-4. Apply modern techniques and instruments for Biochemical estimation, Molecular biology, Biotechnology, Plant Tissue culture experiments, Cellular and physiological studies of plants with an understanding of the applications in human life.</p> <p>PO-5. Apply the knowledge gained from the studies for the upliftment of society via addressing health, environmental issues, food scarcity etc.</p>
Programme Specific Outcomes (PSO) B.Sc. (Botany)	<p>PSO-1. Critical evaluation of ideas and arguments by collecting relevant information about the plants, so as to recognize their position in the classification systems and at phylogenetic level.</p> <p>PSO-2. Students will be able to access the primary literature, identify relevant works for a particular topic, and evaluate the scientific content of these works.</p> <p>PSO-3. Students will be able to compare and contrast the characteristics of the different groups of plants such as algae, fungi, bryophytes, pteridophytes, gymnosperms and angiosperms.</p> <p>PSO-4. Students will be able to use the evidence of comparative biology to explain how the theory of evolution offers the only scientific explanation for the unity and diversity of life on earth.</p> <p>PSO-5. Students will be able to explain how Plants function at gene, genome, cellular and tissue level.</p> <p>PSO-6. Students will be able to relate the physical features of the environment to the structure of populations, communities, and ecosystems.</p> <p>PSO-7. Students will be able to conceive the idea of artificial propagation of plants via vegetative methods and to find a livelihood via establishing miniature plant nurseries.</p>
Course Outcomes (CO) B. Sc. (Botany) First Year	
Course	Outcomes
	After completion of these courses students should be able to;
Biodiversity: (Microbes, Algae, Fungi and Archegoniate) (BOTA 101)	<p>CO-1. Know broadly about Plant Kingdom, their occurrence, life cycles and positive and negative effects on our lives.</p> <p>CO-2. Appreciate invisible life under Kingdom Monera impacting mankind.</p>

Plant Ecology and Taxonomy (BOTA 102)	<p>CO-1. Grasp knowledge of ecological factors responsible for sustaining plants.</p> <p>CO-2. Get information of different types of ecosystems, their structure and functions.</p> <p>CO-3. Get basic knowledge of nomenclature of Angiosperms.</p>
Second Year	
Plant Anatomy and Embryology (BOTA 201)	<p>CO-1. Learn about different types of tissues in plants, internal structure of plant organs and their anomalous growth.</p> <p>CO-2. Learn about different parts in a flower, phenomenon of spore and Egg formation.</p> <p>CO-3. Get information on interesting phenomenon of pollination.</p> <p>CO-4. Get basic knowledge of fruit and seed formation in Angiosperms.</p>
Plant Physiology and Metabolism (BOTA 202)	<p>CO-1. Get knowledge of Respiration, Photosynthesis, Transpiration, and Nutrition in plants.</p> <p>CO-2. Appreciate how plants prepare nitrogen in their system in order to give nitrogen in food for all living beings.</p> <p>CO-3. Understand the role of hormones in flowering of plants.</p>
Third Year	
Economic Botany and Biotechnology (BOTA 301)	<p>CO-1. Understand about cultivation of crops, cereals, pulses, condiments, beverages, medicinal plants, their growth requirements and economic value.</p> <p>CO-2. Know basics of Biotechnology, different techniques used in biotechnology; its advantages and disadvantages to mankind.</p>
Cell Biology and Molecular Biology (BOTA 303)	<p>CO-1. Know about different types of equipment needed to study details of cell structure.</p> <p>CO-2. Recall once again the structure of organelle of cell they studied in lower classes.</p> <p>CO-3. Study details of genetic material responsible for genetics and physiology of plants.</p>