

PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES
B.Sc Botany , Fazl Ali College, Mokokchung

PROGRAMME OUTCOMES :

PO-1: The curriculum is designed to suit the semester pattern and credit system adopted by the University. It incorporates the latest concept and application of the botanical knowledge in all aspects.

PO-2: The curriculum imparts theoretical knowledge correspond with practical components to impart skills and techniques require in this subject areas.

PO-3: It envisages in teacher learner interaction and progressively enhances knowledge over the subject and inculcate in them a sense of spirit, inquisitive and appreciation of the dynamic nature.

PO-4: It helps the learner to have the knowledge to acknowledge and responsibility to the environment, ecology and biodiversity of plants.

PO-5: It helps the learner to understand the potential botanical, pharmacological and economic usage.

PO-6: Understand the useful herbs and identification of medicinal taxa, since the students are aware of morphology and taxonomy of plants.

PO-7: Learn the application and usage of scientific instruments, tools and equipments

PROGRAMME SPECIFIC OUTCOME (PSO) of B.Sc Botany.

<i>Sl no</i>	B.Sc PROGRAMME in BOTANY		
<i>SEME STER</i>	PROGRAMME SPECIFIC OUTCOME (PAPERWISE)		
	Paper CODE	NAME OF THE PAPER	PSO
<i>SEM I</i>	Bot: 101	Biodiversity I	Learn about origin and evolution of biodiversity, bacteriology, phycology, mycology and virology
	Bot:103	Microbiology and Plant pathology	Learn about diversity of microbes, role of microbes in soil, water and decomposition, Role of microbes in food processing, industrial and pharmaceutical. Studies about plant disease and control measures.
<i>SEM II</i>	Bot:201	Biodiversity II and palaeobotany	Learn about Bryology, Pteridology, Gymnosperm and Palaeobotany
	Bot: 203	Embryology and Palynology	Learn about structure , anatomy and functions of Reproductive organs in flower, pollination and fertilization , post fertilization and Palynology.
<i>SEM III</i>	Bot:301	Morphology, Anatomy and Angiosperm Taxonomy	Learn about vegetative and floral morphology, anatomy and Angiosperm taxonomy, and taxonomic families.
	Bot:303	Ethnobotany, Economic Botany and Biometrics	Ethnobotany and its significance with reference to North East India, plant food for man, cultivation of cereals, medicinal plants, spices and condiments , tea,

			rubber, sugarcane mustard and potato. Timber plants cultivation and biometrics.
SEM IV	Bot:401	Plant physiology and Ecology	Plant water relations and mineral nutrients, Photosynthesis and Respiration, plant growth and development. Ecology and Biodiversity and environmental crises and impact of human activity in degradation of environment.
	Bot:403	Environmental Biology and Phytogeography	Dynamic of environmental biology, natural resources, global agenda and convention for environmental issues, concept of environmental management, National Environmental Policy, conservation of biological diversity. Phytogeography with reference to floristic region of India.
SEM V	Bot:501	Biochemistry and Plant Breeding	Concept of biochemistry, biomolecules; carbohydrates, proteins, Lipids, Nucliec acid and bioenergetic. Plant breeding, Plant introduction, Hybridization technique, heterosis, plant selection methods.
	Bot:503	Molecular biology and Biotechnology	Gene, central dogma, semi-conservative, DNA and RNA, chromosome , gene sequence and chromosome diversity. Plant biotechnology, tissue culture, genetic engineering. Vector for gene delivery and GMF/ GMO. Recombinant DNA Technology, DNA libraries, Southern and Northern blotting, PCR, DNA sequencing.
SEM VI	Bot:601	Cell Biology and Genetics	Cell theory, microscopy, micrometry, organization of cell, cell cycle, genetics, inheritance, interaction of gene, chromosome aberration, mutation and extra chromosomal inheritance.
	Bot:603	Mushroom Cultivation	History of mushroom cultivation, nutritional and medicinal value of mushroom, types of edible mushroom, life cycle of Agaricus and Pleurotus. Mushroom spawn laboratory and cultivation farm layout, equipments for mushroom spawn, cultivation of Paddy straw mushroom, white button and Oyster mushroom. Disease management of mushroom, value addition and marketing of mushroom.

COURSE OUTCOMES FOR B.Sc. BOTANY:

CO-1: Understand the relevant information about the plant kingdom, fungi kingdom and microbes.

CO-2 : Identification, classification of plants taxa and formulate systematic position of taxonomy

CO-3 : Understand the interaction of biotic and abiotic factor in sustenance of planet earth

CO-4: Understand the morphological and anatomical aspects , physiological function, cellular and genetic and bioinformatics.

CO-5: Understand the role tissue culture and application of this knowledge in floriculture, micropropagation of endangered and economically important plants for research and commercial purpose.

CO-6: Understand the evolutionary aspects of living organisms, primitive life and geological history of earth,

CO-7: Understand the role of microbes in biotechnology in pharmaceutical, food industry, bioremediation, biopesticides and biofertilizers through genetic engineering.

CO-8: Learn about entrepreneurial aspects such as mushroom cultivation, hydroponics, floriculture, vermicompost, organic farming etc.

CO-9: The botanical studies inculcate knowledge to apply in everyday life and also established career in Botany and allied branches.