#### **Department of Botany**

### Programme Specific Outcome & Course Specific outcome

### Yogoda Satsanga Palpara Mahavidyalaya

## **Programme Specific Outcome (PSO)**

## **Botany General**

- The students studying Botany is learning the various branches of Botany like classification, origin, morphology, reproduction of different plant groups & microbes, Ecology & Ecosystem, Biodiversity, Taxonomy & Systematics, Anatomy, Embryology, Plant Physiology, Biochemistry, Genetics, Cell biology, Molecular Biology of different life forms.
- The students become efficient & expert on the technical & analytical skills of plant sciences.
- The students are also learning the use of microscopes, identifying plant specimen, herbarium preparation, permanent slide preparation, identifying microbes, executing physiology, biochemistry, cell biology, genetics & molecular biology experiments.
- Students are also understanding the diversity of different plant groups with the help of field study & survey.

# **Course Specific Outcome**

## **Botany General**

Semester	Paper/Course	Name of the Paper/Course	Course Outcome
Semester I	Core-1 (DSC- 1A)	Biodiversity (Microbes, Algae, Fungi and Archegoniate)	The students will learn the diversity, identification, classification, morphological features and economic importance of lower plants group & microbes.
	GE-1	Biodiversity (Microbes, Algae, Fungi and Archegoniate)	The students will learn the diversity, identification, classification, morphological features and economic importance of lower plants group & microbes.
Semester II	Core-4 (DSC- 1B)	Plant Ecology and Taxonomy	<ul> <li>Students will study the factors causing Environmental degradation and its impact on the Environment. The knowledge will them to be aware about to conserve ecosystem &amp; its habitat, to prevent global warming &amp; to develop sustainable environment.</li> </ul>

		• The students will learn about the systematic position of Genera, Species and, Families. They will develop knowledge about plant nomenclature.
GE-2	Plant Ecology and Taxonomy	<ul> <li>Students will study the factors causing Environmental degradation and its impact on the Environment. The knowledge will them to be aware about to conserve ecosystem &amp; its habitat, to prevent global warming &amp; to develop sustainable environment.</li> <li>The students will learn about the systematic position of Genera, Species and, Families. They will develop knowledge about plant nomenclature.</li> </ul>

Semester III	Core-7 (DSC- 1C)	Plant Anatomy and Embryology	To study the anatomical structures & functions of vascular plants & to learn about fertilization, embryology & endosperm.
	GE-3	Plant Anatomy and Embryology	To study the anatomical structures & functions of vascular plants & to learn about fertilization, embryology & endosperm.
		Economic Botany and Plant Biotechnology	<ul> <li>To learn the nomenclature, general account &amp; uses of cereals, spices, beverages, oils etc.</li> <li>To study molecular biology, techniques using recombinant DNA technology; definitions, types &amp; procedures of various methods of plant tissue culture, their advantages &amp; disadvantages.</li> </ul>

Semester IV	Core-10 (DSC- 1D)	Plant Physiology and Metabolism	Students will understand the physiological life processes in plants They will also learn the transport mechanisms in plants. They will also learn the functions of the plant hormones and enzyme kinetics. channel or transport proteins involved in nutrient absorption in plants.
	GE-4	Plant Physiology and Metabolism	Students will understand the physiological life processes in plants They will also learn the transport mechanisms in plants. They will also learn the functions of the plant hormones and enzyme kinetics. channel or transport proteins involved in nutrient absorption in plants.
	SEC-2	Mushroom Culture Technology	To learn various kinds of mushroom cultivation processes, steps involved in them, advantages & disadvantages, commercial uses.
Semester v	DSE-1A	Cell and Molecular Biology	Students will study the acellular entities including infective particles comprising only protein or

			RNA, the function of plant cytoskeleton and accessory proteins in major cellular processes of plants, the principle & mechanisms of various processes of gene expression & regulation gene of expression.
Semester VI	DSE-1B	Genetics and Plant Breeding	<ul> <li>Students will learn Mendelian and non- Mendelian inheritance, laws of Mendel, quantitative genetics, molecular markers and linkage, gene mapping, prokaryotic and eukaryotic genome- structure, gene function and regulation.</li> <li>Students will study various processes of plant breeding, benefits &amp; drawbacks, steps involved in the procedures.</li> </ul>