

Lesson Plan

CBCS

Semester I (Hons.)

Students are Requested to Carry a Copy of the syllabus during the class .

Sl. No.	Topic	Lecture Period
1	Mycorrhiza- General Introduction- 1LP	Mycorrhizal Association 05 LP DC2
2	Mycorrhiza Classification Ectomycorrhiza, Endomycorrhiza 2LP	
3	Phosphate mobilization by AMF. Significance and role in Agriculture 2LP	
4	Role of fungi in biotechnology 1LP	Applied Mycology 06 LP DC2
5	Application of fungi in the food industry 2LP	
6	Fungi as Biocontrol agents 1LP	
7	Mycotoxins 2LP	
8	Industrial production Cheese 1LP	Industrial Application of Fungi 05 LP DC2
9	Industrial production Ethanol 1LP	
10	Industrial production Baker's yeast 1LP	
11	Industrial production Amylase and Riboflavin 2LP	

Semester I (General)

Sl. No.	Topic	Lecture Period
1	Pteridophytes: General characteristics 1LP	Pteridophytes 15 LP DC/GE1
2	Pteridophytes: classification, Early land plants (<i>Cooksonia</i> and <i>Rhynia</i>) 2LP	
3	Heterospory and seed habit 2LP	
4	Stellar Evolution 2LP	
5	Ecological and economical importance 2LP	
6	Morphology, anatomy and reproduction of <i>Selaginella</i> 2LP <i>Equisetum</i> 2LP <i>Pteris</i> 2LP	

Semester II (Hons.)

Sl. No.	Topic	Lecture Period
1	Introduction to angiosperm Morphology, Palynology and Anatomy 2LP	Morphology of Angiosperm 21 LP DC3
2	Scope and applications in systematics, forensic and pharmacognosy 2LP	
3	Leaf: Types, Margin, Base, Venation 2LP	
4	Phyllotaxy, Petiole and modifications 2LP	
5	Inflorescence: types with examples 2LP	
6	Flower: Floral parts, Thalamus and insertion of floral parts, Calyx, Corolla, Aestivation, Perianth, 3LP	
7	Floral diagram and floral formula 2LP	
8	Stamen: Types and anther shape 1LP	
9	Carpel : types, placentation-types, ovule structure and types 3LP	
10	Fruit types with examples 2LP	

Semester II (General)

Sl. No.	Topic	Lecture Period
1	Ecosystem: Structure, energy flow 2LP	Ecosystem 04 LP DC/GE2
2	Food chains and food webs, Ecological pyramids 2LP	
3	Biogeochemical cycling Carbon 1LP Nitrogen 2LP Phosphorous 2LP	Biological Fixation 05 LP DC/GE2
4	Phytogeography: Principle biogeographical zones 2LP	Phytogeography 04 LP DC/GE2
5	Endemism 2LP	

Semester III (Hons.)

Sl. No.	Topic	Lecture Period
1	Significance of Plant systematics 3LP	Taxonomy of Angiosperm 10 LP DC5
2	Taxonomic hierarchy 3LP	
3	Botanical nomenclature: Principles and rules (ICN); Ranks and names; Typification 4 LP	

Semester IV (Hons.)

Sl. No.	Topic	Lecture Period
1	Concept of plant breeding 3LP	Plant Breeding 10 LP DC8
2	Types of variety selection 4LP	
3	Heterosis and Hybrid vigour 3LP	
4	Introduction to Biostatistics 2LP	Biostatistics 11LP DC9
5	Sampling methods 3LP	
6	Rules of probability; Null-hypothesis, chi-square test 4LP	
7	Correlation and Regression 2LP	

Semester V (Hons.)

Sl. No.	Topic	Lecture Period
1	Scope of microbes in industry and environment 5LP	Industrial Microbiology 60LP DSE2
2	Bioreactors/Fermenters and fermentation processes 10LP	
3	Microbial production of industrial products 10LP	
4	Microbial enzymes of industrial interest and enzyme immobilization 10LP	
5	Microbes and quality of environment 10LP	
6	Microbial flora of water 5LP	
7	Microbes in agriculture and remediation of contaminated soils 10LP	

Semester VI (Hons.)

Sl. No.	Topic	Lecture Period
1	Defining plant stress 5LP	Stress Biology 55LP DSE3
2	Environmental factors 15LP	
3	Stress sensing mechanisms in plants 15LP	
4	Developmental and physiological mechanisms that protect plants against environmental stress 10LP	
5	Reactive oxygen species 10LP	