

Course offered :
**SCHEME AND SYLLABUS FOR CHOICE BASED CREDIT SYSTEM FOR B.Sc.
HONOURS BOTANY**

Sem	Core Course I4	Ability Enhancement Compulsory Course (2)	Skill Enhancement Course (SEC) (2)	Discipline Specifics Elective DSE (4)	Generic Elective GE (4)
I	Microbiology and Phycology	English Communication/ Environmental science			GE - 1
	Biomolecules and Cell Biology				
II	Mycology and Phytopathology	Environmental science			GE-2
	Archegoniate				
III	Anatomy of Angiosperms		SEC-I		GE - 3
	Economic Botany				
	Genetics				
IV	Molecular Biology				GE - 4
	Plant Ecology & Phytogeography				
	Plant Systematics				
V	Reproductive Biology of Angiosperms			DSE - 1	
	Plant Physiology			DSE - 2	
	Plant Metabolism			DSE - 3	
				DSE - 4	

Important Notes

- a) Practicals of each semester Core courses be clubbed together during end semester examinations, but separate marksheets of each practical core course should be prepared.

- b) Practicals of DSE in each semester (5th / 6th) be clubbed together during end semester examinations for convenience, but separate mark sheets of each DSE practical course should be prepared.

Semester wise distribution of courses in B.Sc. Botany Honours (CBCS)

Semester	Course Code	Course	Course Name	Credits
I		Ability Enhancement Compulsory Course-I	English communications/ Environmental Science	2
	BC101T	Core course-I	Microbiology and Phycology	4
	BC101P	Core Course-I Practical	Microbiology and Phycology	2
	BC102T	Core course-II	Biomolecules and Cell Biology	4
	BC102P	Core Course-II Practical	Biomolecules and Cell Biology	2
	BG101T	Generic Elective-I Theory	GE-I(T)	4
	BG101P	Generic Elective - I Practical/Tutorial	GE-I(P)	2
II		Ability Enhancement Compulsory Course-II	English communications /Environmental Science	2
	BC203T	Core course-III	Mycology and Phytopathology	4
	BC203P	Core Course-III Practical	Mycology and Phytopathology	2
	BC204T	Core course-IV	Archegoniate	4
	BC204P	Core Course-IV Practical	Archegoniate	2
	BG202T	Generic Elective -2 Theory	GE-2(T)	4
	BG202P	Generic Elective -2 Practical	GE-2(P)	2
III	BC305T	Core course-V	Anatomy of Angiosperms	4
	BC305P	Core Course-V Practical	Anatomy of Angiosperms	2
	BC306T	Core course-VI	Economic Botany	4
	BC306P	Core Course-VI Practical	Economic Botany	2
	BC307T	Core course-VII	Genetics	4
	BC307P	Core Course-VII Practical	Genetics	2

	BS301	Skill Enhancement Course-I	SEC-1: Any one course from I to V i. BiofertilizersII. ii. Herbal Technology iii. Nursery and Gardening iv. Floriculture v. Medicinal Botany	4
	BG303T	Generic Elective -3 Theory	GE-3(T)	4
IV	BG303P	Generic Elective -3 Practical	GE-3(P)	2
	BC408T	Core course-VIII	Molecular Biology	4
	BC408P	Course-VIII Practical	Molecular Biology	2
	BC409T	Core course-IX	Plant Ecology & Phytogeography	4
	BC409P	Course-IX Practical	Plant Ecology & Phytogeography	2
	BC410T	Core course-X	Plant Systematics	4
	BC410P	Core Course- X Practical	Plant Systematics	2
	BS402	Skill Enhancement Course-2	SEC-2: Any one course from VI to X VI. Plant Diversity and Human Welfare VII. Ethnobotany VIII. Mushroom Culture Technology IX. Intellectual Property Rights X. Tea Plantation and management	4
	BG404T	Generic Elective -4 Theory	GE-4(T)	4
V	BG404P	Generic Elective -4 Practical	GE-4(P)	2
	BC511T	Core course-XI	Reproductive Biology of Angiosperms	4
	BC511P	Core Course-XI Practical	Reproductive Biology of Angiosperms	2
	BC512T	Core course-XII	Plant Physiology	4

BC512P Core Course-XII Practical Plant Physiology 2				
Discipline Specific Elective: Students may opt any two of the following courses				
	(Two Theory courses along with relevant Practical courses)			
	BD501T	Discipline Specific Elective-1	DSE-1: Analytical Techniques	
			in Plant Sciences	4
	BD501P	Discipline Specific		
		Elective-1 Practical		2
	BD502T	Discipline Specific Elective-2	DSE-2: Bioinformatics	4
	BD502P	Discipline Specific Elective-2		
		Practical/Tutorial		2
	BD503T	Discipline Specific Elective-3	DSE-3: Research Methodology	4
	BD503P	Discipline Specific		
		Elective-3 Practical		2
	BD504T	Discipline Specific Elective-4	DSE-4: Industrial and	
			Environmental Microbiology	4
	BD504P	Discipline Specific		
		Elective- 4 Practical		2
	VI	BC613T	Core course-XIII	Plant Metabolism
BC613P		Core Course-XIII		
		Practical/Tutorial	Plant Metabolism	2
BC614T		Core course-XIV	Plant Biotechnology	4
	BC614P	Core Course-XIV		
		Practical/Tutorial	Plant Biotechnology	2
Discipline Specific Elective: Students may opt any two of the following courses				
	(Two Theory courses along with relevant Practical courses)			
	BD605T	Discipline Specific Elective-5	DSE-5: Plant Breeding	4
	BD605P	Discipline Specific Elective-5		
		Practical/Tutorial		2
	BD606T	Discipline Specific Elective-6	DSE-6: Natural Resource	
		Management	4	
	BD606P	Discipline Specific		

	BD607T	Elective - 6 Practical/Tutorial Discipline Specific Elective-7	DSE-7: Horticultural Practices and Post-Harvest Technology	2
	BD607P	Discipline Specific Elective-7 Practical/Tutorial		4
	BD608T	Discipline Specific Elective-8	DSE-8: Biostatistics	4
	BD608P	Discipline Specific Elective-8 Practical/Tutorial		2
Total:				140

Coding pattern: B = Botany, C= Core Course, D = Discipline Specific Elective, G= General Elective, S = Skill Enhancement Course, T = Theory, P = Practical

Generic Electives (GE) courses for the students having honours in discipline other than Botany

- I. Biodiversity (Microbes, Algae, Fungi and Archegoniate)
- II. Plant Physiology and Metabolism
- III. Plant Anatomy and Embryology
- IV. Plant Ecology and Taxonomy
- V. Economic Botany and Biotechnology
- VI. Environmental Biotechnology

**SCHEME AND SYLLABUS FOR CHOICE BASED CREDIT SYSTEM FOR
B.Sc. NON-HONOURS BOTANY**

	Discipline Core Course (12)	Ability Enhancement Compulsory Course (AECC) (2)	Skill Enhancement Course (SEC) (2)	Discipline Specific Elective DSE (6)
I	Discipline-I Botany Paper I: Biodiversity (Microbes, Algae, Fungi and Archegoniate) DSC- 2 Paper I DSC- 3 Paper I	(English/ MIL Communication) /Environmental Science		
II	Discipline-I Botany Paper II: Plant Ecology and Taxonomy DSC- 2 Paper II DSC- 3 Paper II	Environmental Science (English/MIL Communication)		
III	Discipline-I Botany Paper III: Plant Anatomy and Embryology DSC- 2 Paper III DSC- 3 Paper III		SEC - 1	
IV	Discipline - I Botany		SEC- 2	

Important Notes

- a) **Practicals of each semester Core courses be clubbed together during end semester examinations, but separate marksheets of each practical core course should be prepared.**
- b) **Practicals of DSE in each semester (5th / 6th) be clubbed together during end semester examinations for convenience, but separate marksheets of each DSE practical course should be prepared.**

Semester wise distribution of courses in B.Sc. Botany Non-Honours (CBCS)

SEMESTER	COURSE OPTED	COURSE NAME	Credits
I	Ability Enhancement Compulsory Course-I	English/MIL communications/ Environmental Science	2
	BNC101T	Biodiversity (Microbes, Algae, Fungi and Archegoniate)	4
	BNC101P	Biodiversity (Microbes, Algae, Fungi and Archegoniate) Lab	2
	Discipline- 2 Paper I	DSC- 2 Paper I	4
	Discipline- 2 Paper I Practical	DSC- 2 Paper I Practical	2
	Discipline - 3 Paper I	DSC- 3 Paper I	4
	Discipline - 3 Paper I Practical	DSC- 2 Paper I Practical	2
II	Ability Enhancement Compulsory Course-II	English/MIL communications /Environmental Science	2
	BNC202T	Plant Ecology and Taxonomy	4
	BNC202P	Plant Ecology and Taxonomy Lab	2
	Discipline - 2 Paper II	DSC- 2 Paper 2	4
	Discipline -2 Paper II Practical	DSC- 2 Paper 2 Practical	2
	Discipline - 3 Paper II	DSC- 3 Paper 2	4
	Discipline - 3 Paper II Practical	DSC- 3 Paper 2 Practical	2
III	BNC303T	Plant Anatomy and Embryology	4
	BNC303P	Plant Anatomy and Embryology Practical	2
	Discipline - 2 Paper III	DSC- 2 Paper III	4
	Discipline - 2 Paper III Practical	DSC- 2 Paper III Practical	2
	Discipline - 3 Paper III	DSC- 3 Paper III	4
	Discipline - 3 Paper III Practical	DSC- 3 Paper III Practical	4
	BNS301 <i>Students will select any one course from (I) to (III)</i>	(I) Biofertilizers (II) Herbal Technology (III) Medicinal Botany	2

IV	BNC404T	Plant Physiology and Metabolism	4
	BNC404P	Plant Physiology and Metabolism Practical	2
	Discipline - 2 Paper IV	DSC- 2 Paper IV Theory	4
	Discipline - 2 Paper IV Practical	DSC- 2 Paper IV Practical	2
	Discipline - 3 Paper IV	DSC- 3 Paper IV Theory	4
	Discipline - 3 Paper IV Practical	DSC- 3 Paper IV	2
	BNS402 <i>Students will select any one course from (IV) to (V)</i>	(IV) Nursery and Gardening (V) Floriculture	2
V	BNS503 <i>Students will select any one course from (VI) to (VII)</i>	(VI) Plant Diversity and Human Welfare (VII) Ethnobotany	2
	BND501T <i>Students will select any one course from (I) to (III)</i>	(I) Economic Botany and Biotechnology (II) Cell and Molecular Biology (III) Analytical Techniques in Plant Sciences	4
	BND501P <i>Students will select one relevant practical course based on theory course.</i>	Practical (I) Economic Botany and Biotechnology (II) Cell and Molecular Biology (III) Analytical Techniques in Plant Sciences	2
	Discipline Specific Elective – Discipline 2 Paper I	DSE-Discipline 2 Paper I	4
	Discipline Specific Elective – Discipline 2 Paper I Practical	DSE-Discipline 2 Paper I Practical	2
	Discipline Specific Elective – Discipline 3 Paper I	DSE- Discipline 3 Paper I	4
	Discipline Specific Elective – Discipline 3 Paper I Practical	DSE-Discipline 2 Paper I Practical	2
	VI	BNS604 <i>Students will select any one course from (VIII) to (IX)</i>	(VIII) Mushroom Culture Technology (IX) Intellectual Property Rights
BND602T <i>Students will select any one</i>		(IV) Bioinformatics	

	course from (IV) to (VI)	(V) Research Methodology	4
		(VI) Dissertation	6
	BND602P Students will select one relevant practical course based on theory course. For BND602T(VI), practical course is not required.	(IV) Bioinformatics (V) Research Methodology	2
	Discipline Specific Elective – Discipline 2 Paper II	DSE-Discipline 2 Paper II	6
	Discipline Specific Elective –Discipline 2 Paper II Practical	DSE-Discipline 3 Paper II Practical	6
	Discipline Specific Elective – Discipline 3 Paper II	DSE- Discipline 3 Paper II	6
	Discipline Specific Elective – Discipline 3 Paper II Practical	Practical	6
		Total Credits	120

Details of Courses

Core Courses –Botany

1. Biodiversity (Microbes, Algae, Fungi and Archegoniate)
2. Plant Ecology and Taxonomy
3. Plant Anatomy and Embryology
4. Plant Physiology and Metabolism

Discipline Specific Electives-Botany (Any two)

1. Economic Botany and Biotechnology
2. Cell and Molecular Biology
3. Analytical Techniques in Plant Sciences
4. Bioinformatics
5. Research Methodology
6. Dissertation

Ability Enhancement Compulsory Courses

1. Environmental Science
2. English/MIL Communication

Skill Enhancement Courses (Any four)

Botany

1. Biofertilizers
2. Herbal Technology
3. Nursery and Gardening
4. Floriculture
5. Medicinal Botany
6. Plant Diversity and Human Welfare
7. Ethnobotany
8. Mushroom Culture Technology
9. Intellectual Property Right