Syllabus

Bachelor of Science/ Bachelor of Science Honors (Botany)		
First Semester		**Credit =23**
Sr. No.	**Subjects**	Credit
1	Introduction to Plant Sciences (Theory)	3
2	Introduction to Plant Sciences (Practical)	2
3	(Choose any one Minor Theory subject) • Fundamental Chemistry - 1 (Theory) • Introductory Microbiology (Theory) • Fundamental of Environmental Science (Theory) • Fundamentals of Nutrition (Theory)	3
4	(Choose any one Minor Practical subject like theory subject) • Fundamental Chemistry - 1 (Practical) • Introductory Microbiology (Practical) • Fundamental of Environmental Science (Practical) • Fundamentals of Nutrition (Practical)	2
5	(Choose any one Multidisciplinary Theory subject other than Minor) • Fundamental Chemistry - 1 (Theory) • Introductory Microbiology (Theory) • Fundamental of Environmental Science (Theory) • Fundamentals of Nutrition (Theory)	3
6	(Choose any one Multidisciplinary Practical similar to theory subject other than Minor) • Fundamental Chemistry - 1 (Practical) • Introductory Microbiology (Practical) • Fundamental of Environmental Science (Practical) • Fundamentals of Nutrition (Practical)	2
7	Communicative English	3
8	Fundamentals of Computer Science	3
9	Environmental Studies	2
Second Semester		**Credit =23**
Sr. No.	**Subjects**	
1	Basics in Plant Science (Theory)	3
2	Basics in Plant Science (Practical)	2
3	(Choose any one Minor Theory subject) • Fundamental Chemistry - 2 (Theory) • Basic Bacteriology (Theory) • Environmental Pollution (Theory) • Lifecycle Nutrition (Theory)	3

4	(Choose any one Minor Practical subject like theory subject) • Fundamental Chemistry - 2 (Practical) • Basic Bacteriology (Practical) • Environmental Pollution (Practical) • Lifecycle Nutrition (Practical)	2
5	(Choose any one Multidisciplinary Theory subject other than Minor) • Fundamental Chemistry - 2 (Theory) • Basic Bacteriology (Theory) • Environmental Pollution (Theory) • Lifecycle Nutrition (Theory)	3
6	(Choose any one Multidisciplinary Practical like theory subject other than Minor) • Fundamental Chemistry - 2 (Practical) • Basic Bacteriology (Practical) • Environmental Pollution (Practical) • Lifecycle Nutrition (Practical)	2
7	English for Career Development	3
8	Personality Development	3
9	Life Lessons from Bhagavad Geeta	2

Note: Students exiting the programme after securing 46 credits will be awarded UG Certificate in the relevant Discipline /Subject, provided they secure 4 credits in work based vocational courses earned during summer term internship / Apprenticeship in addition to 6 credits from skill-based courses earned during first and second semester

Bachelor of Science/ Bachelor of Science Honors (Botany)		
	Third Semester	**Credit =24**
Sr. No.	**Subjects**	Credit
1	Anatomy of Angiosperms (Theory)	3
2	Anatomy of Angiosperms (Practical)	2
3	Economic Botany (Theory)	3
4	Economic Botany (Practical)	2
5	(Choose any one Minor Theory subject same as previous semester) • Organic and Analytical Chemistry-1/ Inorganic and Physical Chemistry-1 (Theory) • Nutritional Pattern in Microorganisms/Food Microbiology (Theory) • Water Quality Analysis (Theory) • Essential's of Macro Nutrients (Theory)	3
6	(Choose any one Minor Practical subject like theory subject) • Organic and Analytical Chemistry-1/ Inorganic and Physical Chemistry-1 (Practical) • Nutritional Pattern in Microorganisms/Food Microbiology (Practical) • Water Quality Analysis (Practical) • Essential's of Macro Nutrients (Practical)	2

7	(Choose any one Multidisciplinary Theory subject same as previous semester other than Minor) • Organic and Analytical Chemistry-1/ Inorganic and Physical Chemistry-1 (Theory) • Nutritional Pattern in Microorganisms/Food Microbiology (Theory) • Water Quality Analysis (Theory) • Essential's of Macro Nutrients (Theory)	3
8	(Choose any one Multidisciplinary Practical like theory subject other than Minor) • Organic Chemistry-1/ Inorganic Chemistry-1/Physical Chemistry-1 (Practical) • Nutritional Pattern in Microorganisms/Food Microbiology (Practical) • Water Quality Analysis (Practical) • Essential's of Macro Nutrients (Practical)	2
9	Business Communication 1	2
10	Universal Human Value	2
	Fourth Semester	**Credit =24**
Sr. No.	**Subjects**	
1	Plant Systematics (Theory)	3
2	Plant Systematics (Practical)	2
3	Ecology (Theory)	3
4	Ecology (Practical)	2
5	Biomolecules and Cell Biology (Theory)	3
6	Biomolecules and Cell Biology (Practical)	2
7	(Choose any one Minor Theory subject same as previous semester) • Organic and Analytical Chemistry-2/ Inorganic and Physical Chemistry-2 (Theory) • Soil Microbiology/Water Microbiology/Virology (Theory) • Environment and Public Helth (Theory) • Essential's of Micro Nutrients (Theory)	3
8	(Choose any one Minor Practical subject like theory subject) • Organic and Analytical Chemistry-2/ Inorganic and Physical Chemistry-2 (Practical) • Soil Microbiology/Water Microbiology/Virology (Practical) • Environment and Public Helth (Practical) • Essential's of Micro Nutrients (Practical)	2
9	Business Communication 2	2
10	Universal Human Value	2

Note: Students exiting the programme after securing 94 credits will be awarded UG Diploma in the relevant Discipline /Subject provided they secure additional 4 credit in skill based vocational courses offered during first year or second year summer term.

Bachelor of Science/ Bachelor of Science Honors (Microbiology)		
Fifth Semester		**Credit =24**
Sr. No.	**Subjects**	Credit
1	Plant Physiology (Theory)	3
2	Plant Physiology (Practical)	2
3	Plant Metabolism (Theory)	3
4	Plant Metabolism (Practical)	2
5	Reproductive Biology of Angiosperms (Theory)	3
6	Reproductive Biology of Angiosperms (Practical)	2
7	(Choose any one Minor Theory subject same as previous semester) • Inorganic Chemistry-3/ Organic Chemistry-3/ Physical Chemistry-3 (Theory) • Molecular Biology/Immunology-1/Industrial Microbiology-1 (Theory) • Environmental Bio Technology (Theory) • Human Physiology-1 (Theory)	3
8	(Choose any one Minor Practical subject like theory subject) • Inorganic Chemistry-3/ Organic Chemistry-3/ Physical Chemistry-3 (Practical) • Molecular Biology/Immunology-I/Industrial Microbiology-1(Practical) • Environmental Bio Technology (Practical) • Human Physiology-1 (Practical)	2
9	Internship	4
Sixth Semester		**Credit =25**
Sr. No.	**Subjects**	
1	Plant Molecular Biology (Theory)	3
2	Plant Molecular Biology (Practical)	2
3	Plant Biotechnology (Theory)	3
4	Plant Biotechnology (Practical)	2
5	Mycology and Phytopathology (Theory)	3
6	Mycology and Phytopathology (Practical)	2
7	Archegoniate (Theory)	3
8	Archegoniate (Practical)	2
9	(Choose any one Minor Theory subject same as previous semester) • Organic Chemistry-4/ Inorganic Chemistry-4/Physical Chemistry-4/ Analytical Chemistry-4 (Theory) • Microbial Genetics/Mycology and Phycology/Immunology-2/Industrial Microbiology-2 (Theory) • Environmental Impact Assessment (Theory) • Human Physiology-2 (Theory)	3
10	(Choose any one Minor Practical subject like theory subject) • Organic Chemistry-4/ Inorganic Chemistry-4/Physical Chemistry-4/ Analytical Chemistry-4 (Practical)	2

	• Microbial Genetics/Mycology and Phycology/Immunology-2/Industrial Microbiology-2 (Practical) • Environmental Impact Assessment (Practical) • Human Physiology-2 (Practical)	

Note: Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline /Subject upon securing 143 credits