

Syllabus

Bachelor of Science/ Bachelor of Science Honors (Microbiology)		
First Semester		Credit =23
Sr. No.	Subjects	Credit
1	Introductory Microbiology (Theory)	3
2	Introductory Microbiology (Practical)	2
3	(Choose any one Minor Theory subject) <ul style="list-style-type: none"> • Fundamental Chemistry - 1 (Theory) • Introduction to plant science (Theory) • Fundamental of Environmental Science (Theory) • Fundamentals of Nutrition (Theory) 	3
4	(Choose any one Minor Practical subject like theory subject) <ul style="list-style-type: none"> • Fundamental Chemistry - 1 (Practical) • Introduction to plant sciences (Practical) • Fundamental of Environmental Science (Practical) • Fundamentals of Nutrition (Practical) 	2
5	(Choose any one Multidisciplinary Theory subject other than Minor) <ul style="list-style-type: none"> • Fundamental Chemistry - 1 (Theory) • Introduction to plant science (Theory) • Fundamental of Environmental Science(Theory) • Fundamentals of Nutrition (Theory) 	3
6	(Choose any one Multidisciplinary Practical like theory subject other than Minor) <ul style="list-style-type: none"> • Fundamental Chemistry - 1 (Practical) • Introduction to plant science (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	Credit
1	Basic Bacteriology (Theory)	3
2	Basic Bacteriology (Practical)	2
3	(Choose any one Minor Theory subject) <ul style="list-style-type: none"> • Fundamental Chemistry - 2 (Theory) • Basics in Plant Science (Theory) • Environmental Pollution (Theory) • Lifecycle Nutrition (Theory) 	3

4	(Choose any one Minor Practical subject like theory subject) <ul style="list-style-type: none"> • Fundamental Chemistry - 2 (Practical) • Basics in Plant Science (Practical) • Environmental Pollution (Practical) • Lifecycle Nutrition (Practical) 	2
5	(Choose any one Multidisciplinary Theory subject other than Minor) <ul style="list-style-type: none"> • Fundamental Chemistry - 2 (Theory) • Basics in Plant Science (Theory) • Environmental Pollution (Theory) • Lifecycle Nutrition (Theory) 	3
6	(Choose any one Multidisciplinary Practical like theory subject other than Minor) <ul style="list-style-type: none"> • Fundamental Chemistry - 2 (Practical) • Basics in Plant Science (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

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Third Semester		Credit =24
Sr. No.	Subjects	Credit
1	Nutritional Pattern in Microorganisms (Theory)	3
2	Nutritional Pattern in Microorganisms (Practical)	2
3	Food Microbiology (Theory)	3
4	Food Microbiology (Practical)	2
5	(Choose any one Minor Theory subject same as previous semester) <ul style="list-style-type: none"> • Organic and Analytical Chemistry-1/ Inorganic and Physical Chemistry-1 (Theory) • Economic Botany (Theory) • Water Quality Analysis (Theory) • Essential's of Macro Nutrients (Theory) 	3
6	(Choose any one Minor Practical subject like theory subject) <ul style="list-style-type: none"> • Organic and Analytical Chemistry-1/ Inorganic and Physical Chemistry-1 (Practical) • Economic Botany (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) <ul style="list-style-type: none"> • Organic and Analytical Chemistry-1/ Inorganic and Physical Chemistry-1 (Theory) 	3

	<ul style="list-style-type: none"> Economic Botany (Theory) Water Quality Analysis (Theory) Essential's of Macro Nutrients (Theory) 	
8	(Choose any one Multidisciplinary Practical like theory subject other than Minor) <ul style="list-style-type: none"> Organic and Analytical Chemistry-1/ Inorganic and Physical Chemistry-1 (Practical) Economic Botany (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	Soil Microbiology (Theory)	3
2	Soil Microbiology (Practical)	2
3	Water Microbiology (Theory)	3
4	Water Microbiology (Practical)	2
5	Virology (Theory)	3
6	Virology (Practical)	2
7	(Choose any one Minor Theory subject same as previous semester) <ul style="list-style-type: none"> Organic and Analytical Chemistry-2/ Inorganic and Physical Chemistry-2 (Theory) Plant Systematics/ Ecologe (Theory) Environment and Public Helth (Theory) Essential's of Micro Nutrients (Theory) 	3
8	(Choose any one Minor Practical subject like theory subject) <ul style="list-style-type: none"> Organic and Analytical Chemistry-2/ Inorganic and Physical Chemistry-2 (Practical) Plant Systematics/ Ecologe (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	Molecular Biology (Theory)	3
2	Molecular Biology (Practical)	2
3	Immunology – 1 (Theory)	3
4	Immunology – 1 (Practical)	2

5	Industrial Microbiology – 1 (Theory)	3
6	Industrial Microbiology – 1 (Practical)	2
7	(Choose any one Minor Theory subject same as previous semester) <ul style="list-style-type: none"> • Inorganic Chemistry-3/ Organic Chemistry-3/ Physical Chemistry-3 (Theory) • Plant Molecular Biology/ Plant Physiology (Theory) • Environmental Bio Technology (Theory) • Human Physiology-I (Theory) 	3
8	(Choose any one Minor Practical subject like theory subject) <ul style="list-style-type: none"> • Inorganic Chemistry-3/ Organic Chemistry-3/ Physical Chemistry-3 (Practical) • Plant Molecular Biology/ Plant Physiology (Practical) • Environmental Bio Technology (Practical) • Human Physiology-I (Practical) 	2
9	Internship	4
Sixth Semester		Credit =25
Sr. No.	Subjects	
1	Microbial Genetics (Theory)	3
2	Microbial Genetics (Practical)	2
3	Mycology & Phycology (Theory)	3
4	Mycology & Phycology (Practical)	2
5	Immunology – 2 (Theory)	3
6	Immunology – 2 (Practical)	2
7	Industrial Microbiology – 2 (Theory)	3
8	Industrial Microbiology – 2 (Practical)	2
9	(Choose any one Minor Theory subject same as previous semester) <ul style="list-style-type: none"> • Organic Chemistry-4/ Inorganic Chemistry-4/Physical Chemistry-4/ Analytical Chemistry-4 (Theory) • Plant Biotechnology (Theory) • Environmental Impact Assessment (Theory) • Human Physiology-II (Theory) 	3
10	(Choose any one Minor Practical subject like theory subject) <ul style="list-style-type: none"> • Organic Chemistry-4/ Inorganic Chemistry-4/Physical Chemistry-4/ Analytical Chemistry-4 (Practical) • Plant Biotechnology (Practical) • Environmental Impact Assessment (Practical) • Human Physiology-II (Practical) 	2

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