

**B.Sc.SEMESTER – I
2023-2024**



Program Specific Outcomes (PSOs)

MAJOR DISCIPLINE SPECIFIC CORE COURSES: Theory

PROGRAMME CODE: SCIUG103

SEM-I: SC23MJDSCBOT101: MICROBIOLOGY AND PHYCOLOGY

On completion of the course, the students will be able to:

- Develop understanding on the concept of microbial nutrition.
- Classify viruses based on their characteristics and structures.
- Develop critical understanding of plant diseases and their remediation.
- Examine the general characteristics of bacteria and their cell reproduction/ recombination.
- Increase the awareness and appreciation of human friendly viruses, bacteria, algae and their economic importance.
- Conduct experiments using skills appropriate to subdivisions.

MINOR DISCIPLINE SPECIFIC CORE COURSES: - Theory

PROGRAMME CODE: SCIUG103

SEM-I: SC23MiDSCBOT102: MICROBES AND ALGAE

On completion of the course, the students will be able to:

- Develop understanding on the concept of microbial nutrition.
- Classify viruses based on their characteristics and structures.
- Develop critical understanding of plant diseases and their remediation.
- Examine the general characteristics of bacteria and their cell reproduction/ recombination.
- Increase the awareness and appreciation of human friendly viruses, bacteria, algae and their economic importance.
- Conduct experiments using skills appropriate to subdivisions.

SKILL ENHANCEMENT COURSE: - Theory

PROGRAMME CODE: SCIUG103

SEM-I: SC23SECBOT106: HORTICULTURE

On completion of the course, the students will be able to:

- Understand the different classifications of horticultural crops, nursery management, and use of technology in horticulture.
- Develop their competency on pre and post-harvest technology in horticultural crops.
- Analyze the different methods of weed control and harvest treatments of horticultural crops.
- Examine the economic implications of cultivation of tropical and sub-tropical vegetable crops.
- Evaluate the importance of horticulture and contribution spices and condiments on economy.

Course Outcomes (COs)

SC23MJDSCBOT 101 Microbiology and Phycology-Theory

After the completion of the course the students will be able to:

1. Develop understanding about the classification and diversity of different microbes including viruses & Algae and their economic importance.
2. Develop conceptual skill about identifying microbes and algae.
3. Gain knowledge about developing commercial enterprise of microbial products.
4. Learn host –pathogen relationship and disease management.
5. Learn Presentation skills (oral & writing) in Botany by usage of computer of computer & multimedia.
6. Gain Knowledge about uses of microbes in various fields.
7. Understand the structure and reproduction of certain selected bacteria and algae.
8. Gain Knowledge about the economic values of this lower group of plant community.
8. Gain laboratory skills such as microscopy, microbial cultures, staining, identification, preservation of microbes for their applications in research and industry.

Pedagogy: Lectures/ Use of Multimedia / Assignments/ Hands-on experiments/ Demonstrations/ Field visit.

SC23 PMJDSC BOT101 Microbiology and Phycology-Practical

After the completion of the course the students will be able:

1. Understand the instruments, techniques, lab etiquettes and good lab practices for working in a microbiology laboratory.
2. Develop skills for identifying microbes and using them for Industrial, Agriculture and Environment purposes.
3. Practical skills in the field and laboratory experiments in Microbiology & Pathology.
4. Learn to identify Algae.
5. Can initiate his own Plant & Seed Diagnostic Clinic and
6. Can start own enterprise on microbial products.

Pedagogy: Lectures/ Use of Multimedia / Assignments/ Hands-on experiments/ Demonstrations/ Field visit.

SC23MJDSCBOT102 MICROBES AND ALGAE –Theory

After the completion of the course the students will be able to:

1. Develop understanding about the classification and diversity of different microbes including viruses and their economic importance.
2. Develop conceptual skill about identifying microbes.
3. Gain knowledge about developing commercial enterprise of microbial products.
4. Learn host –pathogen relationship and disease management.
5. Learn Presentation skills (oral & writing) in Botany by usage of computer of computer & multimedia.
6. Gain Knowledge about uses of microbes in various fields.
7. Understand the structure and reproduction of certain selected bacteria.
8. Gain Knowledge about the economic values of this lower group of plant community.
8. Gain laboratory skills such as microscopy, microbial cultures, staining, identification, preservation of microbes for their applications in research and industry.

Pedagogy: Lectures/ Use of Multimedia / Assignments/ Hands-on experiments/ Demonstrations/ Field visit.

SC23PMIDSC BOT102 MICROBES AND ALGAE-Practical

After the completion of the course the students will be able:

1. Understand the instruments, techniques, lab etiquettes and good lab practices for working in a microbiology laboratory.
2. Develop skills for identifying microbes and using them for Industrial, Agriculture and Environment purposes.
3. Practical skills in the field and laboratory experiments in Microbiology & Pathology.
4. Can initiate his own Plant & Seed Diagnostic Clinic and Can start own enterprise on microbial products.

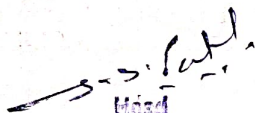
Pedagogy: Lectures/ Use of Multimedia / Assignments/ Hands-on experiments/ Demonstrations/ Field visit.

SC23SEC BOT106 HORTICULTURE-Theory


After the completion of the course the students will be able:

1. To gain knowledge of gardening, cultivation, multiplication, raising of seedlings of garden plants.
2. To get knowledge of new and modern techniques of plant propagation.
3. To develop interest in nature and plant life.

Pedagogy: Lectures, Tutorials, Assignments, Demonstrations, live specimens, Videos, Team based learning, Garden visit and report writing.


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