

BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
BOT-404	Biohazards, Biosafety, Bioethics (Lab.)	1	VII
Year	Discipline		
4	BOTANY		

Syllabus Outline: Demonstration for Handling of Microbes Aseptically, Learning of Appropriate Safety Precautions and Ethical Use of Biodiversity.

Course Outline:

1. Microbiological Procedures that are related to hazards will be Demonstrated and Evaluated in Laboratory Exercise.
2. Demonstration of Aseptic Techniques.
3. Techniques to Release/Dispose off Microbial Cultures.
4. Handling of Pathogenic Bacteria.
5. Hazards commonly found in Microbiological Laboratories and appropriate Safety Precautions and Responses.
6. Hazards of working with Bacteria, Virus, Parasites, Recombinant and Procedures and regulations.

Module Aims: The course designed for guidance about techniques for microbiological procedure which are not hazardous for Environment and friendly human health.

Learning Strategies:

1. Lectures
2. Group Discussion
3. Laboratory work
4. Seminar/ Workshop

Learning Outcome: Students are expected to have knowledge about Safety Measures followed for handling of Microbial Molecules and Laboratory Precautions for their proper Dispose off.

Assessment Strategies:

1. Lecture Based Examination (Objective and Subjective)
2. Assignments
3. Class discussion
4. Quiz
5. Tests

Books Recommended:

1. **S.I. Cutter, (2003).** *Environmental Risks and Hazards*, Prentice Hall.
 2. **Donnellan, C. (2002).** *Cloning*. Independent Educational Publication.
 3. **Donnellan, C. (2001).** *The Ethics of Genetic Engineering*. Independent Educational Publication.
 4. **O'Mahony, P.J. (2000).** *Nature, Risk, and Responsibility: Discourses of Biotechnology*. Routhedge Routhedge Publisher.
 5. **Hansen, D.J. (2000).** *The Work Environment; Healthcare, Laboratories and Biosafety*. Lewi Publishers.
 6. **Torrance, I. (2000).** *Bio-Ethics for new Millennium*, Saint Andrew Press.
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