

BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
BOT-402	Air Pollution, its Impacts and Control (Lab.)	1	VII
Year	Discipline		
4	BOTANY		

Syllabus Outline: Air Sampling, Ambient Air Analysis, Polluting Agents, Bioindicators for Pollution Alerts, Field Survey of Densely Polluted Areas, Study of Environmental Pollutants in relation to reduction the Hazardous Effects.

Course Outline:

1. Air Sampling: General Considerations in sampling and use of various Instruments.
2. Analysis of Ambient Air for Ozone.
3. Analysis of Ambient Air for NO₂.
4. Analysis of Ambient Air for SO₂.
5. Identification of Sources of various Air Pollutants and study of their Characteristics.
6. Bio-Indicators and study of Symptoms of Air Pollutants on Vegetation.
7. Study of Impact of Radiation on Germination and early Seedling Growth.
8. Field Work, Visit to Industrial Sites showing Air Pollution.

Module Aims: To study important Particulate Matter that our especially important in Air Pollution Control Effect of Radiation on Plant Growth.

Learning Strategies:

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

Learning Outcome:

To understand various air pollutants their impact on plants and control.

Assessment Strategies:

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

Books Recommended:

1. **Bridgeman, H.A (2009).** *Global Air Pollution*. Belhaven Press, London.
2. **Southwick, C.H. (2007).** *Global Ecology*. Sinauer Associates, Inc. Sunderland, Massachusetts.
3. **Crawley, M.J. (2007).** *Plant Ecology* (3rd Ed.). Blackwell Science Ltd. (U.K).
4. **National Research Council, USA, (2007).** Committee on Medical and Biological Affects of Environmental Pollutants; Ozone and other Photochemical Oxidants. National Academy of Sciences, Washington, D.C.
5. **Schneider, S.H. (2005).** *Global Warming*. Sierra Club Books. San Francisco.
