



**SECOND-YEAR OF BACHELOR OF SCIENCE
CHEMISTRY OPEN ELECTIVE COURSE
REVISED SYLLABUS ACCORDING TO CBCS
NEP2020**

**COURSE TITLE: ENVIRONMENTAL POLLUTION MANAGEMENT
SEMESTER-IV
W.E.F. 2024-2025**

**RECOMMENDED BY THE BOARD OF STUDIES IN CHEMISTRY
AND
APPROVED BY THE ACADEMIC COUNCIL**

Devrukh Shikshan Prasarak Mandal's

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.
Tal. Sangameshwar, Dist. Ratnagiri-415804, Maharashtra,
India

Academic Council Item No:

Name of the Implementing Institute	:	Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangameshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Science
Name of the Department	:	Chemistry
Name of the Class	:	Second Year
Semester	:	Fourth
No. of Credits	:	02
Title of the Course	:	Environmental Pollution management
Course Code	:	CHOE204
Name of the Vertical in adherence to NEP 2020	:	Generic/ Open Elective Courses
Eligibility for Admission	:	Any student admitted to Second Year Degree Programme in adherence to Rules and Regulations of the University of Mumbai and Government of Maharashtra
Passing Marks	:	40%
Mode of Assessment	:	Formative and Summative
Level	:	UG
Pattern of Marks Distribution for SEE and CIA	:	40:60
Status	:	NEP-CBCS
To be implemented from Academic Year	:	2024-2025
Ordinances /Regulations (if any)		

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce and Vid. Dadasaheb Pitre Science College, Devrukh (An Autonomous College Affiliated with University of Mumbai)

Syllabus for Second Year of Bachelor of Science in Chemistry

(With effect from the academic year 2024-2025)

SEMESTER-IV

Course Title: Environmental Pollution management **No. of Credits - 02**

Type of Vertical: Generic/Open Elective Courses **COURSE CODE: CHOE204**

Learning Outcomes Based on BLOOM's Taxonomy:

After completing the course, the learner will be able to...		
Course Learning Outcome No.	Blooms Taxonomy	Course Learning Outcome
CLO-01	Understand	understand the types, sources and hazards of environmental pollution.
CLO-02	Apply	identify the polluted sites and apply the control measures.

Syllabus for Second Year of Bachelor of Science in Chemistry

(With effect from the academic year 2024-2025)

SEMESTER-IV

Course Title: Environmental Pollution management No. of Credits - 02

Type of Vertical: Generic/Open Elective Courses COURSE CODE: CHOE204

COURSE CONTENT			
Module No.	Content	Credits	No. of Hours
1	<ul style="list-style-type: none"> ○ Causes of global warming, ozone depletion ○ Enhanced N and S emissions, Major sources of air, water and soil pollutants, ○ Effects of pollutants on physico-chemical and biological properties surrounding atmosphere – Air and water borne diseases and their effects on health ○ Field work Visit to an area to document environmental assets; river/forest/flora/fauna, etc. 	01	15
2	<ul style="list-style-type: none"> ○ Air, drinking water and waste water quality standard ○ Major sources of noise pollution, effects of noise pollution on health - Noise level standard in industrial, commercial, residential and silence zones ○ Radioactive and thermal pollution sources and their effects on surrounding environment ○ Field work Visit to a local polluted site– Urban/ Rural/ Industrial/ Agricultural. 	01	15
	Total	02	30

Access to the Course

The course is available for all the students admitted for Bachelor of Arts and Commerce faculties.

Methods of Assessment

The assessment pattern would be 40:60, 60% for Semester End Examination (SEE) and 40% for Continuous Internal Assessment (CIA). The structure of the SEE and CIA would be as recommended by the Board of Studies and approved by the Board of Examination and the Academic Council of the college.

References:

1. The Science of Environmental Pollution by Frank R. Spellman
2. Air Pollution: Supplement to Measurements, Monitoring, Surveillance, and Engineering by Arthur C Stern.
3. Pollution Monitoring and Control” by V K Prabhakar
4. https://www.bbau.ac.in/dept/UIET/TCE-033%20%20epdf.pub_environmental-pollution-and-control.pdf