



**SECOND-YEAR OF BACHELOR OF SCIENCE
CHEMISTRY SKILL COURSE RELATED TO DSC
REVISED SYLLABUS ACCORDING TO CBCS
NEP2020**

**COURSE TITLE: GOOD LABORATORY PRACTICES
SEMESTER-III, 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	:	Third
No. of Credits	:	02
Title of the Course	:	Good Laboratory Practices
Course Code	:	CHSE201
Name of the Vertical in adherence to NEP 2020	:	Skill Enhancement Course (SEC)
Eligibility for Admission	:	Any student admitted to Second Year of B.Sc. Degree Programme in adherence to Rules and Regulations of the University of Mumbai and Government of Maharashtra
Passing Marks	:	40%
Mode of Assessment	:	Summative at the end of semester
Level	:	UG
Pattern of Marks Distribution for TE and CIA	:	100 %
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-III

Course Title: Good Laboratory Practices

No. of Credits - 02

Type of Vertical: Skill Enhancement Course

COURSE CODE: CHSE201

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	explain MSDS data of various chemicals.
CLO-02	Apply	maintain laboratory records compliant with current industry standards and utilize troubleshoot measures during laboratory processes.
CLO-03	Analyse	analyse laboratory data with accuracy and perform basic laboratory procedures and protocols in future lab situations.

Syllabus for Second Year of Bachelor of Science in Chemistry

(With effect from the academic year 2024-2025)

SEMESTER-III

Course Title: Good Laboratory Practices

No. of Credits - 02

Type of Vertical: Skill Enhancement Course

COURSE CODE: CHSE201

COURSE CONTENT			
Module No.	Content	Credits	No. of Lectures
1	<p>Theory related to the Practicals</p> <ul style="list-style-type: none"> ○ Introduction to GLP, History, Scope, Fundamental points of GLP (Resources Characterization, Rules, Results, Quality assurance) ○ Standard Operating Procedures ○ General Rules/Protocols for Lab Safety measures ○ Precaution and Safety in handling of chemicals ○ Laboratory tools, Glasswares and instruments. ○ Log Book Maintenance ○ Basic SOPs for instrument handling and Maintenance ○ Calibration of Instruments: pH meter, colorimeter, spectrophotometer, water bath, distillation assembly, Burette, Pipette etc. ○ Keeping data records, its analysis by using statistical and mathematical tools. ○ Result analysis and its interpretation. 	01	30
2	<p>Practicals</p> <ul style="list-style-type: none"> ○ Preparation of MSDS Data of the chemicals ○ Calibration of a Glasswares ○ Calibration and handling of pH meter. ○ Calibration and handling of Potentiometer ○ Calibration and handling of Conductivity meter ○ Calibration and handling of Colorimeter and Visible spectrophotometer 	01	30
Total		02	60

Access to the Course

The course is available for all the students who have selected Chemistry as a major DSC.

Methods of Assessment

Vocational Skill Courses, Skill Enhancement Courses and the courses having laboratory sessions shall be assessed at the end of each semester.

References:

1. Use of Microsoft word, Excel. (For Data entry, calculation and graphical representation).
2. Handbook Good Laboratory Practices-World health organization (WHO).
3. Guidelines for good laboratory practices-Indian council of medical research, New Delhi (2008).
4. Good Laboratory Practice Regulations, Sandy Weinberg Vol. 69, Marcel Dekker Series.
5. Good laboratory Practice Regulations – Allen F. Hirsch, Volume 38, Marcel Dekker Series.