SKILL COURSE ON 'GOOD LABORATORY PRACTICES'

Open for Second Year Graduate Student w.e.f. 2022-23

APPROVED BY THE BOARD OF STUDIES IN CHEMISTRY
AND
FINALIZED 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 Sangmeshwar 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. Sangmeshwar, Dist. Ratnagiri-415804,
Name of the Parent University	:	University of Mumbai
Name of the Programme	:	Bachelor of Science
Name of the Class to Which the course is Open	:	SecondYear, Semester Fourth
No. of Credits	:	03
Title of the Course	:	Good Laboratory Practices
Course Code	:	UCHSK41
Passing Marks		40%
Nature of Course	:	Skill Course
Level	:	UG/ PG
Pattern	:	70:30
Status	:	Multidisciplinary- Open to all in the Second Year
To be implemented from Academic Year	:	2022-2023

Syllabus for Skill Course on Good Laboratory Practices

(With effect from the academic year 2022-2023)

Title of the Course: Good Laboratory Practices

COURSE CODE: UCHSK41 **Credits - 03**

COURSE CONT`ENT			
Module No.	**Content**	**Theory Lectures**	**Practical**
1	Theory • 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 Maintanance • Basic SOPs for instrument handaling 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.	15	---
2	Practicals- 1. Preparation of MSDS Data of the chemicals 2. Calibration of a Galsswares 3. Calibration and handling of pH meter. 4. Calibration and handling of Potentiometer 5. Calibration and handling of Conductivitymeter 6. Calibration and handling of Colorimeter and Visible spectrophotometer	---	60
	Total Lectures	75	

Practical Record: A journal comprising one exercise each needs to be submitted by the student at the end of the semester.

Learning Objectives:

1. Prepare students for practical study in Chemical science laboratories.
2. Students able to handle safely and know troubleshoot measures during laboratory processes.
3. Student able to keep, analyse laboratory data with accuracy.

Course outcomes

● Students will be able to safely practice basic laboratory procedures and protocols in future lab situations.
● Maintain laboratory records compliant with current industry standards.

Access to the Course

The course is available for all the students admitted for Bachelor Science and admitted in the second year at UG.

Detail Assessment Scheme
The assessment will be in the form of a Continuous Assessment.

A) Theory Component- 30 marks

a) Continuous Internal Assessment (CIA)- 10 marks
One 30 marks test shall be conducted for given semester and the marks obtained shall be converted to 10 marks. The duration for the test shall be of 1 hrs.

b) Semester End Assessment (SEA)- 20 marks
The semester End Examination of 50 marks and 2 hrs duration shall be conducted for each semester and the marks obtained shall be converted to 20 marks.

B) Practical Component- 70 marks

a) Continuous Internal Assessment (CIA)- 40 marks
1) Attendance- 10 marks
2) Journal/ workbook/assignment book- 20 marks
3) Viva- 10 marks

c) Semester End Assessment (SEA)- 30 marks
Semester End Examination comprises one practical/ project/presentation shall be conducted for each semester for 30 marks.

Eligibility for the Course: Candidates pass in SYBSc level with Biology/ Physics/ Chemistry/ Biochemistry/ Microbiology/ Agriculture
Grading Scale

References:

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