



FIRST-YEAR OF BACHELOR OF SCIENCE MAJOR PHYSICS REVISED SYLLABUS ACCORDING TO CBCS NEP2020

COURSE TITLE-LAB SKILLS IN PHYSICS - II
SEMESTER-II
W.E.F. 2023-2024

**RECOMMENDED BY THE BOARD OF STUDIES IN PHYSICS
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.Sanameshwar, Dist. Ratnagiri-415804, Maharashtra, India

Academic Council Item No: **03 dated 8 July 2023**

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 Department	:	Physics
Name of the Class	:	First Year
Semester	:	Second
No. of Credits	:	02
Title of the Course	:	Lab skills in Physics-II
Course Code	:	S108PHP
Name of the Vertical in adherence to NEP 2020	:	Major and Minor
Eligibility for Admission	:	Any 12 th Pass seeking Admission to 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 SEE	:	100%
Status	:	NEP-CBCS
Implemented from Academic Year	:	2023-2024
Ordinances /Regulations (if any)	:	

Syllabus for First Year of Bachelor of Science in Physics

(With effect from the academic year 2023-2024)

SEMESTER-II

Course Title: Lab skills in Physics-II

Type of Vertical: Major and Minor

Paper No.– Physics Practical

No. of Credits - 02

COURSE CODE: S108PHP

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	Remember	Know the concepts behind all the demo experiments
CLO-02	Apply	Calculate the probable errors involved in the result
CLO-03	Analyze	Use all the basic instruments in the Physics laboratory
CLO-04	Evaluate	Elaborate the principle of each experiment
CLO-05	Create	Organize the experiments listed

Syllabus for First Year of Bachelor of Science in Physics

(With effect from the academic year 2023-2024)

SEMESTER-II

Course Title: Lab skills in Physics-II

Type of Vertical: Major and Minor

Paper No.– Physics Practical

No. of Credits - 02

COURSE CODE: S108PHP

Course Content

List of Experiments

- 1) Helmholtz Resonator
- 2) Flywheel
- 3) Y by Bending
- 4) Total Internal Reflection
- 5) Transistor CE characteristics
- 6) Diode Characteristics
- 7) Lens Combination
- 8) Wedge shaped film
- 9) Charging and Discharging of capacitor
- 10) De-Morgan laws
- 11) Thevenin's Theorem
- 12) Maximum Power Transfer Theorem

Demonstrations

- 1) Faraday's laws
- 2) Fiber optics
- 3) Transformer demo
- 4) Use and handling of Signal Generator
- 5) Use of CRO and charging discharging
- 6) Use of speaker as a mike
- 7) Demo of mutual induction
- 8) Magnetic lines of force
- 9) Demo of Mutual inductance
- 10) Laser beam profile

Access to the Course

The course is available for all the students admitted for Bachelor of Science.

Methods of Assessment

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