



FIRST-YEAR OF MASTER OF SCIENCE IN PHYSICS REVISED SYLLABUS ACCORDING TO CBCS NEP2020

**COURSE TITLE:-ELECTIVE PRACTICAL
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	:	Master of Science
Name of the Department	:	Physics
Name of the Class	:	First Year
Semester	:	Second
No. of Credits	:	02
Title of the Course	:	Elective Practical
Course Code	:	S517PHP
Name of the Vertical in adherence to NEP 2020	:	Elective
Eligibility for Admission	:	BSc in Physics
Passing Marks	:	40%
Mode of Assessment	:	Summative at the end of semester
Level	:	PG
Pattern of Marks Distribution for SEE	:	100 %
Status	:	NEP-CBCS
To be implemented from Academic Year	:	2023-2024
Ordinances /Regulations (if any)		

Syllabus for First Year of Master of Science in Physics

(With effect from the academic year 2023-2024)

SEMESTER-II

Paper No– Physics LAB-III

Course Title: Elective Practical

No. of Credits - 02

Type of Vertical: Elective

COURSE CODE: S517PHP

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

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	Recall the principles involved in the experiments of this course
CLO-02	Understand	Understand the working of interfacing circuits
CLO-03	Apply	Demonstrate the experimental setup for minor variations
CLO-06	Create	Design an interfacing circuit as per the need

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SEMESTER-II

Paper No– Physics LAB-III

Course Title: Elective Practical

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COURSE CONTENT

List of Practicals

1. Faraday Effect-Magneto Optic Effect:
 - a) To Calibrate Electromagnet
2. To determine Verdet's constant for KCl & KI solutions
3. Zeeman Effect using Fabry-Perot etalon /Lummer-Gehrecke plate
4. Characteristics of a Geiger Muller counter and measurement of dead time
5. Ultrasonic Interferometry-Velocity
6. Measurement of dielectric constant, Curie temperature and verification of Curie— Weiss law for ferroelectric material
7. Ambient Light control power switch
8. Study of sample and hold circuit
9. Carrier mobility by conductivity

Access to the Course

The course is available for all the students admitted for Master of science with Physics.

Methods of Assessment

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