



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-II
Course Code	:	S516PHP
Name of the Vertical in adherence to NEP 2020	:	Major
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–Practical–II

Course Title: Elective Practical-II

No. of Credits - 02

Type of Vertical: Elective

COURSE CODE: S516PHP

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 theory of all the experiments of the course
CLO-02	Understand	Understand the working of all the experiments
CLO-03	Apply	Demonstrate the experimental setup for minor variations of parameters
CLO-04	Analyze	Calculate the possible errors involved in the result

Syllabus for First Year of Master of Science in Physics

(With effect from the academic year 2023-2024)

SEMESTER-II

Paper No–Practical - II

Course Title: Elective Practical-II

No. of Credits - 02

Type of Vertical: Elective

COURSE CODE: S516PHP

COURSE CONTENT

List of Practicals

1. TTL characteristics of Totempole, Open collector and tristate devices
2. Pulse width modulation for speed control of dc toy motor
3. Energy Band gap by four probe method
4. Measurement of dielectric constant(Capacitance)
5. I-V/ C-V measurement on semiconductor specimen
6. Determination of Young's modulus of metal rod by interference method
7. Switching Voltage Regulator
8. Barrier capacitance of a junction diode
9. Linear Voltage Differential Transformer

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.