



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

**COURSE TITLE:-MAJOR PRACTICAL
SEMESTER – I
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	:	First
No. of Credits	:	02
Title of the Course	:	Major Practical
Course Code	:	S504PHP
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

Syllabus for First Year of Master of Science in Physics

(With effect from the academic year 2023-2024)

SEMESTER - I

Paper No–Practical

Course Title: Major Practical-I

No. of Credits - 02

Type of Vertical: Major

COURSE CODE: S504PHP

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 concepts behind the experiments in this course
CLO-02	Understand	Understand calculation of possible errors involved in the expt.
CLO-03	Create	Design small electronics experiments
CLO-04	Create	Construct a regulated power supply using LM317

Syllabus for First Year of Master of Science in Physics

(With effect from the academic year 2023-2024)

SEMESTER - I

Paper No–Practical

Course Title: Major Practical-I

No. of Credits - 02

Type of Vertical: Major

COURSE CODE: S504PHP

COURSE CONTENT

List of Practicals

1. Active filter circuits (second order)
2. LM317 & 1C LM 337 voltage regulator ICs
3. h/e by vacuum photocell
4. Study of He-Ne laser-Measurement of divergence and wavelength
5. Constant current supply using IC 741 and LM317
6. Carrier lifetime by pulsed reverse method
7. Coupled Oscillations
8. Diac - Triac phase control circuit
9. Delayed linear sweep using 1C 555
10. Regulated power supply using 1C LM 317

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.