



FIRST SEMESTER 2019 - 2020

Course Handout Part II

01.08.2019

In addition to part-I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the course.

Course No. : PHY F214
Course Title : Electromagnetism and Optics Lab
Instructor-in-Charge : Subhash Karbelkar
Instructors : Meenakshi V., VSN Murthy, Sateesh Kandukuri

Scope and Objective of the Course

The aim of the course is to introduce to students important experiments in Electromagnetism and optics. The objectives are to supplement textbook learning with experimental demonstration and to impart experimental skills with particular emphasis on data collection, and analysis of data.

Learning outcomes

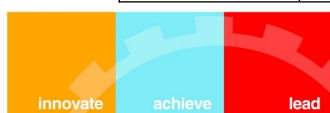
- Performing each experiment individually, trouble-shooting and collecting precise data.
- Interpreting results, analyzing data, and estimating errors in measurements.
- Documenting the results, and writing lab reports.

Lectures and Experimental Notes

Introductory lectures will be given for the experiments and notes on the experiments will be uploaded on *COURSE MANAGEMENT SYSTEM* where necessary. Students should also consult the instrument manual and follow the appropriate experimental procedure.

List of Experiments

S.No.	Experiment
1	Magnetic Force on Wires
2	Magnetic Field of Coils
3	Hysteresis Loop
4	Electromagnetic Induction
5	Charging and Discharging of RC circuit
6	Single and Double Slit Diffraction
7	Malus law and Quarter wave and Half Wave Plate
8	Michelson Interferometer using He Ne laser



9	Michelson Interferometer using Sodium light
10	Laser oscillation modes

Evaluation Scheme:

Component	Duration	Weightage (%)	Date & Time
Attendance, day to day performance and record	----	40	---
Quiz for the Lab	50 minutes	20	---
Comprehensive Practical Examination	90 minutes	40	---

Chamber Consultation Hour: To be announced in class.

Notices: All notices concerning this course will be uploaded on CMS only.

Make-up Policy: It is applicable to the following two cases and it is permissible on production of evidential documents.

(i) Debilitating illness.

(ii) Out of station with prior permission, from the institution if representing it or IC in other cases.

Academic Honesty and Integrity Policy: Academic honesty and integrity are to be maintained by all the students throughout the semester and no type of academic dishonesty is acceptable.

INSTRUCTOR-IN-CHARGE
PHY

F214

