PHYS 1502L - Fundamentals of Physics Laboratory 2

Fall 2026 Syllabus, Section 04, CRN 41325,

Credit hours: 1

Instructor

Emeka Onyishi

Email: eeonyishi@student.ysu.edu

Public Instructor Information

Instructor Title: Graduate Teaching Assistant
Instructor Professional Qualifications:

Ph.D Candidate, Material Science and Engineering, Youngstown State University

M.S., Electrical Engineering, Youngstown State University, 2020

B.S., Electrical Engineering, Enugu State University of Science and Technology, 2015

Instructor Office Location: Moser Hall 3281
Instructor Office Phone:

Course Description

1502L. Fundamentals of Physics Laboratory 2. Experimental work designed to supplement the PHYS 1501, PHYS 1502 sequence. Three hours per week. Prereq. or concurrent: PHYS 1502. 1 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Physics 2 Lab Manual	Clymer	9781645659426

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Thu	8/27	Introduction	The Syllabus	Read The Introduction of The Lab Manual
Thu	9/3	Experiment 1	Nominal Resistance and the Multimeter	Read Lab Manual: Experiment 1 Before Class: Experiment 1 Due Before Next Class of Class
Thu	9/10	Experiment 2	Coulomb's Law	Read Lab Manual: Experiment 2 Before Class: Experiment 2 Due Before Next Class of Class
Thu	9/17	Experiment 3	Electrostatic Ballance And Permittivity of Free Space	Read Lab Manual: Experiment 3 Before Class: Experiment 3 Due Before Next Class
Thu	9/24	Experiment 4	The Oscilloscope	Read Lab Manual: Experiment 4 Before Class: Experiment 4 Due Before Next Class
Thu	10/1	Experiment 5	Circuits and Circuit Elements	Read Lab Manual: Experiment 5 Before Class: Experiment 5 Due Before Next Class
Thu	10/8	Experiment 6	Resistor and Capacitor Networks	Read Lab Manual: Experiment 6 Before Class: Experiment 6 Due Before Next Class

Thu	10/15	Experiment 7	Magnetic Fields	Read Lab Manual: Experiment 7 Before Class: Experiment 7 Due Before Next Class
Thu	10/22	Experiment 8	Current Ballance And The Permeability of Free Space	Read Lab Manual: Experiment 8 Before Class: Experiment 8 Due Before Next Class
Thu	10/29	Experiment 9	Optics (The Basics)	Read Lab Manual: Experiment 9 Before Class: Experiment 9 Due Before Next Class
Thu	11/5	Experiment 10	Optics (Image Formation)	Read Lab Manual: Experiment 10 Before Class: Experiment 10 Due Before Next Class
Thu	11/12	Experiment 11	Interference and Diffraction	Read Lab Manual: Experiment 11 Before Class: Experiment 11 Due Before Next Class
Thu	11/19	Experiment 12	Optical Spectra	Read Lab Manual: Experiment 12 Before Class: Experiment 12 Due Before Next Class
Thu	11/26	THANKSGIVING BREAK	THANKSGIVING BREAK	THANKSGIVING BREAK
Thu	12/3	Make-ups	Make-ups	Make-ups
Thu	12/10	FINAL EXAM WEEK – NO LABS	FINAL EXAM WEEK – NO LABS	FINAL EXAM WEEK – NO LABS

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.