

PHYS 1502L - Fundamentals of Physics Laboratory 2

Summer 2026 Syllabus, Section 01, CRN 30036,

Credit hours: 1

Instructor

Snjezana Balaz

Professional Qualifications:

Ph.D. Chemical and Materials Engineering, University of Nebraska-Lincoln, Lincoln, NE (2007);

M.S. Physics, University of Nebraska-Lincoln, Lincoln, NE (2005);

B.S. Physics, Northland College, Ashland, WI (2001)

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Communication Expectations:

In person , or by email. I expect polite emails.

How to Refer to me:

Dr. Balaz or Dr. Snow

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	The Physics Lab Manual 2: Experiments to Accompany Physics 1502L/2611L at Youngstown State University	W. Cochran	

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	Proposed Topic	Due/To Prepare for Class
Tue	6/30	Nominal Resistance and the Multimeter	Due 6/30 at 11:59pm: Experiment 1 Report
Thu	7/2	Coulomb's Law	Due 7/2 at 11:59pm: Experiment 2 Report
Tue	7/7	The Electrostatic Balance and the Permittivity of Free Space ϵ_0	Due 7/7 at 11:59pm: Experiment 3 Report
Thu	7/9	The Oscilloscope	Due 7/9 at 11:59pm: Experiment 4 Report
Tue	7/14	Circuits and Circuit Elements	Due 7/14 at 11:59pm: Experiment 5 Report

Thu	7/16	Resistor and Capacitor Networks	Due 7/16 at 11:59pm: Experiment 6 Report
Tue	7/21	Moving Charges in Magnetic Fields Determining the Charge to Mass Ratio of the Electron	Due 7/21 at 11:59pm: Experiment 7 Report
Thu	7/23	The Current Balance	Due 7/23 at 11:59pm: Experiment 8 Report
Tue	7/28	Reflection and Refraction: The Basics	Due 7/28 at 11:59pm: Experiment 9 Report
Thu	7/30	Reflection and Refraction: Curved Mirrors, Thin Lenses and Image Formation	Due 7/30 at 11:59pm: Experiment 10 Report
Tue	8/4	Interference & Diffraction	Due 8/4 at 11:59pm: Experiment 11 Report
Thu	8/6	Optical Spectra	Due 8/6 at 11:59pm: Experiment 12 Report

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.