

PHYS 1502 - Fundamentals of Physics 2

Fall 2026 Syllabus, Section 01, CRN 40381,

Credit hours: 3

Instructor

Janis Clymer

Email: jecllymer@ysu.edu

PhD. Physics, The Ohio State University, 1983

M.S. Physics, The Ohio State University, 1975

B.S. Physics, Mathematics, Youngstown State University, 1972

Office location: WB 2032

Office phone: 330-942-2735

Course Description

1502. Fundamentals of Physics 2. Study of electricity, magnetism, and light. Topics include electric charge, electric forces and fields, electric potential, capacitance and resistance in direct current circuits, basic circuit analysis, magnetic forces and fields, induced emf, inductance, reflections, refraction, geometric optics as applied to lenses and mirrors, interference, and diffraction. Prereq.: PHYS 1501 or equivalent. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	College Physics, 5th edition	Alan Giambattista, Robert Richardson and Betty Richardson	
Required	Connect (includes ebook)		

If you want a hard copy of the book there are several options at the Barnes & Noble on campus, and online. An older version of the same text can be obtained online, as a less expensive alternative.

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
Mon	8/24	Intro, Chapter 16	Electric Forces & Fields	
Wed	8/26	Chapter 16	Electric Forces & Fields	
Fri	8/28	Chapter 16	Electric Forces & Fields	
Mon	8/31	Chapter 16	Electric Forces & Fields	Intro to Connect, Tolerance and Significant Figures
Wed	9/2	Chapter 16	Electric Forces & Fields	
Fri	9/4	Chapter 17	Electric Potential	Chapter 16 Reading Assignment
Mon	9/7	NO CLASS LABOR DAY		
Wed	9/9	Chapter 17	Electric Potential	
Fri	9/11	Chapter 17	Electric Potential	Chapter 16 Problem Assignment
Mon	9/14	Chapter 17	Electric Potential	
Wed	9/16	Chapter 17	Electric Potential	Chapter 17 Reading Assignment
Fri	9/18	Chapter 18	Electric Current & Circuits	
Mon	9/21	Chapter 18	Electric Current & Circuits	
Wed	9/23	Chapter 18	Electric Current & Circuits	

Fri	9/25	Chapter 18	Electric Current & Circuits	Chapter 17 Problem Assignment
Mon	9/28	Chapter 18	Electric Current & Circuits	
Wed	9/30	Chapter 18	Electric Current & Circuits	Chapter 18 Reading Assignment
Fri	10/2	Chapter 19	Magnetic Forces & Fields	
Mon	10/5	Chapter 19	Magnetic Forces & Fields	
Wed	10/7	Chapter 19	Magnetic Forces & Fields	Chapter 19 Reading Assignment
Fri	10/9	Chapter 19	Magnetic Forces & Fields	Chapter 18 Problem Assignment
Mon	10/12	Chapter 20	Electromagnetic Induction	
Wed	10/14	Chapter 20	Electromagnetic Induction	
Fri	10/16	Chapter 20	Electromagnetic Induction	Chapter 19 Problem Assignment
Mon	10/19	Chapter 20	Electromagnetic Induction	Chapter 20 Reading Assignment
Wed	10/21	Chapter 21	AC Current	
Fri	10/23	Chapter 21	AC Current	Chapter 20 Problem Assignment
Mon	10/26	Chapter 21	AC Current	Chapter 21 Reading Assignment
Wed	10/28	Chapter 22	Electromagnetic Waves	
Fri	10/30	Chapter 22	Electromagnetic Waves	Chapter 21 Problem Assignment
Mon	11/2	Chapter 22	Electromagnetic Waves	Chapter 22 Reading Assignment
Wed	11/4	Chapter 23	Reflection & Refraction	
Fri	11/6	Chapter 23	Reflection & Refraction	Chapter 22 Problem Assignment
Mon	11/9	Chapter 23	Reflection & Refraction	Chapter 23 Reading Assignment
Wed	11/11	NO CLASS VETERAN'S DAY		
Fri	11/13	Chapter 23	Reflection & Refraction	
Mon	11/16	Chapter 25	Interference & Diffraction	Chapter 23 Problem Assignment
Wed	11/18	Chapter 25	Interference & Diffraction	Chapter 25 Reading Assignment
Fri	11/20	Chapter 25	Interference & Diffraction	
Mon	11/23	Chapter 25	Interference & Diffraction	Chapter 25 Problem Assignment
Wed	11/25	NO CLASS THANKSGIVING BREAK		
Fri	11/27	NO CLASS THANKSGIVING BREAK		
Mon	11/30	Chapter 24	Optical Instruments	
Wed	12/2	Chapter 24	Optical Instruments	Chapter 24 Reading Assignment
Fri	12/4	Chapter 24	Optical Instruments	
Wed	12/9			Chapter 24 Problem Assignment

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.