

PHYS 1502 - Fundamentals of Physics 2

Summer 2026 Syllabus, Section 01, CRN 30035,

Credit hours: 3

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

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	Physics, Edition: 5	Alan Giambattista	

The e-book can be accessed on BlackBoard. See SmartBook assignments on BlackBoard. See the dates on BlackBoard.

Online Homework Site: CONNECT (linked from the Blackboard page). There is an electronic version of the textbook available with CONNECT. To enhance your learning experience and provide discounted access to the right course material, this course is part of an inclusive access model called First Day®. You can easily access the digital materials for your course right from Blackboard. YSU will bill you at the discounted price as a course charge for this course.

You have the option to opt-out of this program in Blackboard. However, please be advised it is **NOT** recommended that you opt out, as these materials are required to complete the course. If you choose to opt out, you will be responsible for purchasing your course materials at the normal retail.

Calculator: You will also need a scientific calculator (not your phone).

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
Fri	7/10		Due 7/9 at 10:59pm: Chapter 16: Electric Forces and Fields Ch 16 Homework Chapter 17: Electric Potential Ch 17 Homework
Fri	7/17		Due 7/16 at 10:59pm: Chapter 18: Electric Currents and Circuits Ch 18 Homework
Fri	7/31		Due 7/30 at 10:59pm: Chapter 19: Magnetic Forces and Fields Ch 19 Homework Chapter 20: Electromagnetic Induction Ch 20 Homework Chapter 21 Alternating Current Ch 21 Homework
Fri	8/7		Due 8/6 at 10:59pm: Chapter 22: Electromagnetic Waves Ch 22 Homework Chapter 23: Light Geometric Optics Ch 23 Homework Chapter 24: Optical Instruments Ch 24 Homework Chapter 25: The Wave Nature of Light Ch 25 Homework

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.