

Fundamentals of Physics II

PHYS 2126 02Z

Fall 2019

VIN 147, R 14:00 – 16:50

Instructor: Scott Williams (VIN 128)

Office Hours: MWF 9:00 – 10:00, MTRF 13:00 – 14:00, W 13:00 – 16:00, and by appointment

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Required Materials: *PHYS 2126 Laboratory Manual, 2019 ed.* and a scientific calculator

Course Description: Laboratory experiences designed to accompany Physics 2326. Emphasis is placed on experiments utilizing the fundamental concepts of electricity, magnetism, and optics.

Student Learning Outcomes: Upon completion of Physics 2126, students will have an increased understanding of the fundamental concepts, theories and physical laws relevant to the broad topical areas of electricity, magnetism, circuits, and optics. Students will have practiced and demonstrated a satisfactory level of mastery in critical reading, critical thinking, and problem solving skills. Students will have engaged in quantitative laboratory experimentation; practiced sound scientific laboratory methods; and utilized a variety of different laboratory measurement techniques, general laboratory skills, data analysis procedures, and error propagation techniques. Students will also develop and improve technical communication skills required for scientific reporting. These outcomes will be assessed using laboratory report grades.

Policies: Mobile phones and music players must be turned off at all times. Note that this means that you cannot use a mobile phone as your calculator. Use of any electronic device other than your calculator during laboratories is not allowed. Prelab assignments are due at the *beginning* of lab meetings; no late prelabs will be accepted. Students must turn in their own prelabs. However, laboratory groups (consisting of 2 or 3 people) may turn in joint laboratory reports.

Grading: Final grades are based on laboratory grades and a laboratory practicum. Individual laboratory grades are based on both prelab and laboratory report grades.

laboratory grade average: 80%

laboratory practicum: 20%

Accommodations: Persons with disabilities which may warrant academic accommodations must contact the Student Life Office (UC 112) in order to request and to implement academic accommodations. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

Honor Code: Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Any student caught cheating will receive a grade of F for the semester. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.

Title IX: Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex. You are encouraged

to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D.

Religious Holy Days: A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence.

PHYS 2126 Laboratory Schedule (01Z & 02Z)

27/29 August	No laboratory meeting
3/5 September	Introduction to Lab Reports
10/12 September	Refraction and Snell's Law
17/19 September	Thin Lenses
24/26 September	No laboratory meeting
1/3 October	Equipotentials and Electric Fields
8/10 October	Ohm's Law and Resistivity
15/17 October	RC Time Constant
22/24 October	No laboratory meeting
29/31 October	Kirchhoff's Rules
5/7 November	The Magnetic Field of the Earth
12/14 November	The Magnetic Field of a Long Straight Wire
19/21 November	RLC Resonance
26/28 November	No laboratory meeting
3/5 December	Laboratory Practicum
10/12 December	No laboratory meeting

The instructor reserves the right to modify/adjust any of the procedures, grading scales, and scheduling presented in this syllabus.