

PHYSICS 110202Z

General Physics II Laboratory



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Office Hours: By email appointment

Course Information

Course Description

Laboratory experiences designed to accompany Physics 1302. Experiments to study of electricity, magnetism, light, and atomic physics. (This course will not count as the introductory physics course for physics majors and pre-engineering majors.)

Prerequisite and Co-requisite Courses

Prerequisite: Physics 1301 or equivalent.

Prerequisite Skills

Ability to download and install GNUPlot software, use Blackboard, Notepad, and a scientific or online calculator capable of standard deviation calculations are expectations of this course.

Student Learning Outcomes

Upon completion of this course, students will be able to:

- Acquiring skills in working with others as a member of a team.
- Learning appropriate methods for collecting , analyzing, and interpreting numerical information.

Course Delivery

This course is a face-to-face course with learning resources and supplementary materials posted in Blackboard.

Required Texts and Materials

Physics 1102-Lab Manual (Charles Allen, 2022) and a scientific calculator. A student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Technology Requirements

To successfully complete this course, students need to download GNUPlot scripts from Blackboard and extract these scripts to their P:\ drive in order to produce scientific graphs during lab meetings.

Communication

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line.

Office hours and/or advising may be done with the assistance of the telephone, Collaborate, Skype, etc.

Grading

Evaluation and Grades

Course grades will be determined as indicated in the table below.

Assessment	Percent of Total Grade
Prelab Assignments	25
Lab Reports	75
Total	100%

Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

A = 90.00-100 points

B = 80.00-89.99 points

C = 70.00-79.99 points

D = 60.00-69.99 points

F = 0-59.99 points (Grades are not rounded up)

Assignment and Activity Descriptions

Students are expected to complete Prelab assignments prior to attending lab meetings. Lab meetings will consist of data acquisition, data analysis, and completion of lab reports. Notifying the lab instructor prior to an absence may result in the ability to make up missed work. Each student is required to complete ASU Lab Safety and Chemical Hygiene training by the 3rd lab meeting.

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#).³

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)⁶ in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the [ASU Writing Center](#).⁷

Student Absence for Observance of 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. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)⁸ for more information.

Title IX at Angelo State University

The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU's Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Miller, J.D.

Special Assistant to the President and Title IX Coordinator

Mayer Administration Building, Room 210

325-486-6357

michelle.boone@angelo.edu

You may also [file a report online](#)⁹ 24/7.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information, visit the [Title IX website](#).¹⁰

Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification.

Course Schedule

Week of	Laboratory
Jan 17	No Lab, Purchase Lab Manual
Jan 24	Introduction to Lab Reports
Jan 31	Equipotentials and Electric Fields
Feb 7	Ohm's Law and Resistivity*
Feb 14	No Lab Meeting
Feb 21	Resistor Combinations
Feb 28	The RC Time Constant
Mar 7	The Magnetic Field of a Long Straight Wire
Mar 14	No Lab, Spring Holidays
Mar 21	Refraction and Snell's Law
Mar 28	Thin Lenses
Apr 4	No Lab Meeting
Apr 11	The Hydrogen Atom Line Spectra
Apr 18	Half-Life of a Radioactive Isotope
Apr 25	No Lab Meeting
May 2	No Lab, Dead Week
May 9	No Lab, Final Exam Week

*ASU Lab Safety and Chemical Hygiene training completed to attend lab.

¹ <https://www.angelo.edu/current-students/student-handbook/>

² <https://www.angelo.edu/academics/catalog/>

³ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

⁴ <https://www.angelo.edu/current-students/disability-services/>

⁵ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁶ <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>

⁷ https://www.angelo.edu/current-students/writing-center/academic_honesty.php

⁸ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

⁹ <http://www.angelo.edu/incident-form>

¹⁰ <https://www.angelo.edu/title-ix>