

PHYS 1302–020

General Physics II



Course Schedule

Date	Chapter	Topic
July 12	18A	Coulomb's Law
July 13	18B	Electric Field
July 14	19A	Electric Potential
July 15	19B	Capacitance
July 16	20	Current, Resistance, and Ohm's Law
July 19	–	Quizzes for Chapters 18, 19, 20
July 20	21A	DC Circuits with Resistors
July 21	21B	DC Circuits with Resistors and Capacitors
July 22	22A	Magnetism and Magnetic Fields
July 23	22B	Magnetic Fields from Electric Currents
July 26	24	Electromagnetic Waves
July 27	–	Quizzes for Chapters 21, 22, 24
July 28	25A	Reflection and Refraction
July 29	25B	Image Formation
July 30	26	Human Vision and Optical Instruments
August 2	27A	Double Slits and Single Slits
August 3	27B	Thin Films and Interference
August 4	–	Quizzes for Chapters 25, 26, 27
August 5	29	Photoelectric Effect and the Wave Nature of Matter
August 6	30A	Bohr Hydrogen Atom
August 9	30B	Quantum Numbers
August 10	31A	Isotopes
August 11	31B	Radioactive Decay and Reactions
August 12	–	<i>dead day</i>
August 13	–	Quizzes for Chapters 29, 30, 31

Instructor: Charles Allen

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Office: Vincent 126

Office Hours: MTWRF 11:00-12:00

Course Information

Course Description

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

An associated lab course, PHYS-1102, is designed to be taken alongside PHYS-1302, but is not an actual co-requisite.

Prerequisite: Physics 1301 or equivalent.

Prerequisite Skills

Ability to use a scientific calculator and proficiency in college algebra are expectations of the course.

Student Learning Outcomes

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

- gain factual knowledge in physics,
- learn fundamental principles of physics, and
- apply course material to problem solving.

Course Delivery

This is a face-to-face course with a required lecture component each day.

Required Texts and Materials

The textbook "College Physics" is available from OpenStax College for free. You also need 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 be able to use Blackboard, a scientific calculator, and complete the IDEA student ranking of instruction. The Blackboard Collaborate polling tool will be used during each lecture. Students must be able to log in to Collaborate each lecture using a phone, tablet, or laptop.

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

Your course score will be based on accumulating points from chapter quizzes, as well as in-class poll questions and worksheets.

Assessment	Approximate Points Available
Chapter Quizzes	720
In-class Activities	360
Total	1080

The number of points possible depends on the exact number of poll questions or worksheet problems completed in class, which is not fully known ahead of time. Your current Score will be shown in Blackboard at all times.

Assignment and Activity Descriptions

Attendance is required.

Makeup exams must be pre-arranged with the instructor before the scheduled exam dates on this syllabus.

In-class activities will be either paper worksheets or Blackboard Collaborate polling questions. There is no makeup for these daily activities.

Online homework problems will be available to provide more practice. To encourage use of the homework problems, each homework problem completed will be worth bonus points that add to your overall points. You don't have to complete any homework problems to get an A in the course. If you *do* complete any homework problems (and turn them in), you will receive bonus points that directly raise your point total. More homework problems are available in the first half of the course (electricity and magnetism) than in the optics and modern physics sections. Completing a homework

problem before the associated chapter quiz will be worth more points than completing a homework problem after the associated chapter quiz, but all homework problems will be available up through the end of dead day.

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 percent

B = 80.00-89.99 percent

C = 70.00-79.99 percent

D = 60.00-69.99 percent

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

The instructor reserves the right to lower the thresholds between letter grades (they will never be raised).

Your estimated final Grade will not be shown until approximately the second half of the course.

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

Required Use of Masks/Facial Coverings by Students

As a member of the Texas Tech University System, Angelo State University has adopted the mandatory [Facial Covering Policy](#)¹¹ to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial

covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.

Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

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>

¹¹ <http://www.texastech.edu/downloads/ttus-policy-face-coverings.pdf>