

PS 3312

Physical Science Concepts II

Summer II, 2021, MTWRF 12:00pm - 1:45pm

VIN 155



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Course Information

Course Description

Physical Science 3312 is a study of physical systems and subsystems, interactions, measurements, electric charge and circuits, magnetism, light, optics, and astronomy.

Prerequisite and Co-requisite Courses

MATH 1314 College Algebra or MATH 1324 Finite Mathematics I

Prerequisite Skills

Accessing Internet websites, using ASU Library resources, and proficiency with Microsoft Word and creating PDF documents.

Student Learning Outcomes

The objective of the study of the physical sciences as a component to the major curriculum for teacher education is to ensure excellence in the instruction of natural science objectives by the teachers in the State of Texas. Specific outcomes and objectives include that the student will:

1. Understand and apply appropriate methods and technology to the study of the natural sciences.
2. Recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.

3. Demonstrate technical and analytical skills appropriate to a future career in teaching by engaging in quantitative laboratory experimentation.
4. Demonstrate the intellectual ability to translate, interpret, and extrapolate the most important scientific models and laws governing units and measurement, motion, forces, matter and energy.
5. Further, develop critical thinking and problem-solving skills in the area of physics and the natural sciences.

Course Delivery

This is a Face-To-Face offering with an option to take the course online. Lectures will not be recorded. This is not a hybrid class. The online activities are stand-alone but coincide with face-to-face activities. Face-to-face and online quizzes and exams are of equal value and difficulty and cover identical material.

Face to face delivery

Each class will include several activities that will be completed during class. Participation is key to experiential, inquiry learning and thus material cannot be made up for absences. Similar online activities will be available if you miss class but the learning outcomes will not be the same. Quizzes and exams will be based on in-class activities. Additional participation points will be granted based on in-class performance.

Online delivery

All in-class activities are replaced by online simulations and worksheets. These replacement activities cover the necessary material but cannot replace the effectiveness of experiential, inquiry learning. You will need to spend extra time to make sure that you have mastered the material so that you can be successful on the quizzes and exams. This course will not be offered as a hybrid.

Required Texts and Materials

- *Physical Science 3312 Manual*, 2019/2020 edition: For Summer 2021 only, I will provide all documents.
- A three ring binder should be purchased to keep all materials together.
- You will need a webcam for use with Respondus LockDown Browser and Monitor. You will also need a picture ID for Respondus Monitor. More info [below](#).
- I will provide all documents. You will need access to a printer for roughly 30 pages.
- For several assignments, you will need common math and geometry equipment such as a ruler, a straight edge, a compass, and a protractor for measuring angles.
- You will also need scotch type tape for an Electric Charge activity.
- You will need something to create charge such as silk, wool, or your own hair.
- You will need a semi-strong permanent magnet for magnetism.

Technology Requirements

To successfully complete this course, students need to have access to a smart phone with camera, a printer, a capable computer with Microsoft Office and pdf viewer/editor, Respondus LockDown Browser, a webcam, and a picture ID such as your student ID card.

Respondus LockDown Browser and Monitor

This course requires the use of LockDown Browser and a webcam for online exams. The webcam can be the type that's built into your computer or one that plugs in with a USB cable. This brief video will give you a basic understanding:

<https://www.respondus.com/products/lockdown-browser/student-movie.shtml>

Download and install LockDown Browser from this link:

<https://download.respondus.com/lockdown/download.php?id=384131921>

Once Installed

- Start LockDown Browser
- Log into Blackboard Learn
- Navigate to the test

Note: You won't be able to access tests with a standard web browser. If this is tried, an error message will indicate that the test requires the use of LockDown Browser. Simply start LockDown Browser and navigate back to the exam to continue.

When taking an online test, follow these guidelines:

- Have a picture ID such as your student ID card available.
- Ensure you're in a location where you won't be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Before starting the test, know how much time is available for it, and also that you've allotted sufficient time to complete it
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices
- Remain at your computer for the duration of the test
- If the computer, Wi-Fi, or location is different than what was used previously with the "Webcam Check" and "System & Network Check" in LockDown Browser, run the checks again prior to the exam
- To produce a good webcam video, do the following:
 - Avoid wearing baseball caps or hats with brims

- Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move
- If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete
- Take the exam in a well-lit room, but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

Several resources are available if you encounter problems:

- The Windows and Mac versions of LockDown Browser have a "Help Center" button located on the toolbar. Use the "System & Network Check" to troubleshoot issues. If an exam requires you to use a webcam, also run the "Webcam Check" from this area
- Respondus has a Knowledge Base available from www.support.respondus.com. Select the "Knowledge Base" link and then select "Respondus LockDown Browser" as the product. If your problem is with a webcam, select "Respondus Monitor" as your product
- If you're still unable to resolve a technical issue with LockDown Browser, go to www.support.respondus.com and select "Submit a Ticket". Provide detailed information about your problem and what steps you took to resolve it

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.

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

Virtual communication: 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	Points out of 600
Daily grades and homework	19 Days * 12 = 228 pts
Discussions, Collaboration, Participation	6 Events * 12 = 72 pts
Section Quizzes	6 Quizzes * 20 = 120 pts
Exams	2 Exams * 90 = 180 pts
Total	600 pts

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 = 540 – 600 points

B = 480 – 539.99 points

C = 420 – 479.99 points

D = 360 – 419.99 points

F = 0 – 359.99 points (Grades are not rounded up)

Assignment and Activity Descriptions

There are four methods of assessment for Student Learning Outcomes:

- The semester will be grouped into three-class-day sections. The section titles are Electric Charge, Electric Circuits, Magnetism, Light, Optics, and Astronomy. Each three day section will have activities totaling 36 points. The assignments will vary greatly between measurements, analysis, taking notes, worksheets, graphs, lab manual completion, homeworks, etcetera. This totals 228 points and is 42% of your grade. All submissions will be via Blackboard. Any other submissions including email submissions will not be accepted.
- We will have a midterm exam that will only cover the first three sections and a final exam that will cover only the last three section. The practice exams and actual exam will use [Respondus LockDown Browser and Monitor](#). You will need the Respondus software, a webcam, and a picture ID card. Each exam will be worth 90 points. This totals 180 points and is 30% of your grade.
- Each three day section will have a quiz worth 20 points. This totals 120 points and is 20% of your grade.
- Each three day section will also have meeting/discussion/collaboration/participation worth 12 points. The goal here is to discuss what we are learning and to help each other with assignments. This totals 72 points and is 12% of your grade.
- Quizzes and Exams are 300 points and Assignments and Participation are 300 points.

Due Dates and Late Work

- All Daily activities will be due **AT THE END OF CLASS** unless otherwise indicated. This includes those taking this class online or those who miss class.
- Those taking this course online or those who know you will miss a class day you will need to complete the activity BEFORE the end of class in order for your work to not be late.
- All late work will be able to be made up on the review day before the exam.
- Late work is worth half credit. The exams serve as a hard deadline for late work.
- Due date extensions will not be granted based on technical issues, health, or personal events.

Course Schedule

Date	Topic	Section Due Date
12-Jul	Introduction, E1	
13-Jul	E2, E3, E4	
14-Jul	E4, E5	E Due
15-Jul	EC1, EC2, EC3	
16-Jul	EC4, EC5, EC6	
19-Jul	EC7, EC8	
20-Jul	EC9, EC10	EC Due
21-Jul	M1, M2, M3	
22-Jul	M4, M5, M6	
23-Jul	M7, M8	M Due
26-Jul	REVIEW	
27-Jul	REVIEW	
28-Jul	EXAM 1 (E,EC,M)	EXAM 1 Due
29-Jul	L1, L2, L3	
30-Jul	L4, L5, L6	
2-Aug	L7, L8	L Due
3-Aug	O1, O2, O3	
4-Aug	O4, O5	
5-Aug	O6, O7	
6-Aug	O8, O9	O Due
9-Aug	A1, A2	Moon Phase Due
10-Aug	A3, A4, A5	A Due
11-Aug	REVIEW	
12-Aug	REVIEW	
13-Aug	EXAM 2 (L, O, A)	EXAM 2 Due

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 Boone, J.D.
Director of Title IX Compliance/Title IX Coordinator
Mayer Administration Building, Room 210
325-942-2022
michelle.boone@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form.

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 about Title IX in general you may visit www.angelo.edu/title-ix.

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

² <https://www.angelo.edu/catalogs/>

³ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

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

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

⁶ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁷ https://www.angelo.edu/dept/writing_center/academic_honesty.php

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