

**THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF PHYSICS**

Course #:	PHYS 3304 CRN 11117
Course Title:	Physical Science II
Credit Hrs:	3.0
Term:	Fall 2021
Course Meetings & Location:	MW 12:30 – 2:20 PM, Physical Science Building 220
Prerequisite Courses:	-
Course Fee: (if applicable)	-
Instructor:	Dr. Felicia S. Manciu
Office Location:	PSCI 221 B
Contact Info:	Phone # : (915) 747 8472
	E-mail address: fsmanciu@utep.edu
	Fax #: (915) 747 5447
	Emergency Contact: (915) 747 5715
Office Hrs:	Monday, Wednesday 2:30 PM – 4:00 PM
Textbook(s), Materials:	<p><i>The Laboratory Section is mandatory for this course.</i></p> <p><i>For the Laboratory Section please purchase two spiral bound lab books from the UTEP Print Shop. Electricity and Light and Color</i></p> <p>Textbook: The Physical Universe, 17th edition, by Krauskopf and Beiser. McGraw Hill Connect Registration required for homework assignments.</p> <p>https://connect.mheducation.com/class/f-manciu-fall-2021</p> <p><i>Each student will need his/her own registration package for the homework.</i></p> <p>The online homework will be announced in advance in the lecture/lab (approximately every week). Each will consist of few problems based on the course material.</p>
Course Objectives (Learning Outcomes):	<p>The objective of the course is to give you an opportunity to experience for yourself that all the theories and laws of physics that you learn in PSCI 3304 actually do <i>work</i>, meaning that the real physical world around us does indeed behave in the way described by the theories and laws. This statement will be verified by careful measurements.</p> <p>The student should master a working understanding of:</p> <ol style="list-style-type: none"> 1. the concept of charge (positive and negative). 2. simple electrical circuits containing: <ol style="list-style-type: none"> a. batteries, wires and light bulbs b. batteries, wires and motors c. batteries wires and capacitors 3. Optics laws of reflection and refraction

<p>Grading Policy:</p>	<p>Grades in this course will be based on your scores two midterm exams, a final exam, quizzes & homework, and laboratory reports.</p> <table border="1" data-bbox="678 233 1438 401"> <tr> <td>Lab reports (performed in class)</td> <td>20 %</td> </tr> <tr> <td>Quizzes & Homework</td> <td>15 %</td> </tr> <tr> <td>Midterm Exams</td> <td>40 % (20% each)</td> </tr> <tr> <td>Final</td> <td>25 %</td> </tr> </table>	Lab reports (performed in class)	20 %	Quizzes & Homework	15 %	Midterm Exams	40 % (20% each)	Final	25 %
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<p>Course Activities/Assignments:</p>	<p><u>ELECTRICITY</u></p> <p>Electricity Lab 1: Charge</p> <p>Electricity Lab 2: Current</p> <p>Electricity Lab 3: Direction of current</p> <p>Electricity Lab 4: Simple circuits (Series, Parallel)</p> <p>Electricity Lab 5: Resistance</p> <p>Electricity Lab 6: Capacitors</p> <p>Electricity Lab 7: Electric circuits</p> <p>Midterm exam (Electricity)</p> <p><u>LIGHT AND COLOR (OPTICS)</u></p> <p>Investigation L1: Light and Illumination How does light leave a bulb? What are shadows? What happens to the shadow if there is more than one source of light?</p> <p>Investigation L2: Reflection of Light Can you always see mirror reflections? How does light reflect from a mirror? Does light reflect from paper? How can you read a paper if it's hidden from your direct view?</p> <p>Investigation L3: Refraction and Real Images What does a lens do? How does light change direction when passing through a transparent material? Properties of the converging lenses.</p>								

<p>Course Activities/Assignments:</p>	<p>Investigation L4: The Eye and Achromatic Vision Eye elements and their functions Near sightedness and Far sightedness</p> <p>Investigation L5: Images that cannot be formed on Screens Mirror Images</p> <p>Investigation L6: Color Addition and Color Vision Color Addition and Color Vision More about Color Vision</p> <p>Midterm exam (Light and Color)</p>
<p>Course Activities/Assignments:</p>	<p>Feel free to form study groups with your classmates and seek help from your instructor during her office hours as you attempt to solve and understand the concepts and problems. Make sure that you understand the problem solutions and write them up yourself.</p> <p>Exams Exams will consist of problems very similar to the worked example problems in the text and the assigned homework problems. Exams will be strictly closed-book. You should bring with you a pocket calculator to work out the answers to numerical problems: make sure the battery is charged!</p> <p>No cell phones allowed in the exams!</p> <p>The best way to prepare for the exams is to study the example problems and work out the assigned homework problems regularly. You should work as many additional problems from the text as you can: this is the best way to ensure your understanding of the material.</p>
<p>Make-up Policy:</p>	<p>An extension of the due date for the homework as well as the make-up of missing exams will be granted only in extraordinary circumstances.</p>
<p>Attendance Policy:</p>	<p>Attendance is mandatory and critical.</p>
<p>Academic Integrity Policy:</p>	<p>Please see: http://academics.utep.edu/Default.aspx?tabid=23785</p>
<p>Civility Statement:</p>	<ul style="list-style-type: none"> • Cell phones should be turned off during class time. • When absences occur, it is your responsibility to obtain handouts and notes from your peers. When possible you will complete the activities you have missed. • Academic integrity is to be practiced at all times.
<p>Disability Statement:</p>	<p>If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East Building, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. The student is responsible for presenting to the instructor any accommodation letters and instructions.</p>

Military Statement:	If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact the instructor at the beginning of the semester.
COVID-19 Precaution Statement	<p>Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID-19 testing.</p> <p>The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.</p>
Course drop date:	October 29th, 2021