

## PSCI 2303: Physical Science I

**CRN:** 28544

**Term:** Spring 2019

**Time:** Tuesday Thursday 8:30 am - 10:20 am

**Where:** PSCI 224

**Instructor:** Dr. Huiyan Yang  
Office: PSCI 215B  
Phone: 747-7510  
Email: hyang4@utep.edu  
Office Hours: MW 10:00 - 11:00 am, or by appointment

### **Required Materials:**

Text: *Conceptual Physics* 12th edition by Paul G. Hewitt, Addison-Wesley.

Lab Manuals: 1. *Kinematics: Student Materials PSCI 2303.*

2. *Heat and conservation of energy: Student material PSCI 2303.*

3. *Light and color: Student Materials PSCI 2303.*

(Available for ~ \$10 each at the Printing Center in the Library.)

### **Textbook chapters:**

#### Kinematics

Chapter 2: Newton's first law of motion-Inertia

Chapter 3: Linear motion

Chapter 4: Newton's second law of motion

Chapter 5: Newton's third law of motion

Chapter 6: Momentum

Chapter 7: Energy

#### Heat and conservation of energy

Chapter 15: Heat and temperature

Chapter 16: Heat transfer

Chapter 17: Change of phase

Chapter 18: Thermodynamics

#### Light and color

Chapter 26: Properties of light

Chapter 27: Color

Chapter 28: Reflection and refraction

Chapter 30: Light emission

(Chapters 29 to 31 will be surveyed)

Understanding of concepts is to be demonstrated by:

- accurately communicating them in written and verbal formats
- correctly answering both short and long answer questions
- completing hands-on activities

### **Assessment and Grading:**

Lab reports (completed in class) 20%

Homework 20%

Quizzes	10%
Midterm exams (3)	30%
Final exam	20%

**Homework Standards:**

- May be typed or hand-written.
- Due at start of each class. The due day is when the next homework is assigned.
- You are responsible to hand in all assignments. Late assignments accepted, but penalized.

**Exams and Quizzes:**

- No makeup exam or quiz is given. The worst midterm exam will be dropped off, and the worst quiz will be dropped off.
- The final exam is mandatory. The student loses 30% credit if the final exam is missed.
- Bring a calculator; cell phones are not allowed.

**Additional Course Policies:**

- Punctual attendance is critical. Quizzes given at start of class.
- We will have breaks and you may eat and drink (if you're careful).
- Cell phones should be turned off during class.
- If you miss 2 classes you will be dropped from the course. Three lates (10 minutes or more) will count as an absence.
- When absences occur, it is your responsibility to obtain handouts and notes from your peers. You are responsible to complete the activities you have missed.

These policies will be strictly enforced for two reasons: 1) you are going to be professionals and these policies are typical of professional behavior; and 2) I take your learning very seriously and simply do not want to waste one minute of the time that I have with you.

**Military:** Students being called for military duties need to contact the instructor as soon as possible.

**UTEP Policies on Academic Dishonesty**

If an instructor suspects a student of cheating, he/she is to collect evidence that he/she believes indicates this (e.g. exams, student work, etc). This evidence is then turned over to the Assistant Vice President for Student Affairs (VPSA). The student will receive an incomplete on whatever piece of work is under consideration. No other actions will be taken by the instructor until the case is closed: no discussion, no accusation, and no different treatment. The student is encouraged to continue participating in the class. The VPSA will consider the evidence provided her and then contact the accused student (and possibly peers) and investigate the allegations. She will then make a decision as to whether cheating occurred and determine what the consequences will be. The instructor will be consulted by the VPSA as to whether the results of the investigation are acceptable to him/her. If acceptable, the instructor will simply carry out the consequences sent to both the student in question and the instructor in a formal letter from Student Affairs. While the seriousness of the identified dishonest actions determines the nature of the consequences, possible consequences include: a counted "zero" on the piece of work, a letter grade reduction, or being placed on academic probation. Students have the right to appeal a decision and participate in a formal public hearing.

**Tentative Timeline:**

Week	Date	Lecture and Quiz	Lab	Homework
1	Jan 22	CH2: Newton's first law of motion-Inertia		<b>HW1</b> Chapter 2: RCh 4-20; T&R 31-36; T&E. 47, 51, 56 58, 63
	Jan 24	Quiz 1	Kinematics 1	
2	Jan 29	CH3: Linear motion		<b>HW 2</b> Chapter 3: RCh Odd questions; T&S 36; T&R 44, 45; T&E 53; T&D 80, 81, 84; HWs from Student Material p.55-56
	Jan 31	Quiz 2	Kinematics 2	
3	Feb 5	CH4: Newton's second law of motion		<b>HW 3</b> Chapter 4: RCh 10-29; T&S 52; T&E 61, 74, 80; HWs from Student Material p.57-58
	Feb 7	Quiz 3	Kinematics 3	
4	Feb 12	CH5: Newton's third law of motion		<b>HW 4</b> Chapter 5: RCh 1-9; T&E 38, 55; HWs from Student Material p.59-60
	Feb 14	Quiz 4	Kinematics 4	
5	Feb 19	CH6: Momentum		<b>HW 5</b> Chapter 6: RCh Odd questions; HWs from Student Material p.61-62.
	Feb 21	Quiz 5	Kinematics 5	
6	Feb 26	CH7: Energy		<b>HW 6</b> Chapter 7: RCh Odd questions; HWs from Student Material p.63-64.
	Feb 28	Quiz 6	Kinematics 6	
7	Mar 5	<b>Exam 1</b>		
	Mar 7	CH15: Heat and temperature		<b>HW 7</b> Chapter 15: RCh Odd questions; T&S 36-41
8	Mar 12	Quiz 7	Heat 1	
	Mar 14	CH16: Heat transfer		<b>HW 8</b> Chapter 16: RCh Odd questions;
9	Mar 19	Spring Break	No Class	
10	Mar 26	Quiz 8	Heat 2	
	Mar 28	CH17: Change of phase		<b>HW 9</b> Chapter 17: RCh Odd questions.
11	Apr 2	Quiz 9	Heat 3	
	Apr 4	CH18: Thermodynamics		<b>HW 10</b> Chapter 18: RCh Odd questions.
12	Apr 9	<b>Exam 2</b>		
	Apr 11	CH26: Properties of light		<b>HW 11</b> Chapter 26: RCh Odd questions.
13	Apr 16	Quiz 10	Light 1	
	Apr 18	CH 27: Color		<b>HW 12</b> Chapter 27: RCh Odd questions.
14	Apr 23	Quiz 11	Light 2	
	Apr 25	CH28: Reflection and refraction		<b>HW 13</b> Chapter 28: RCh Odd questions.
15	Apr 30	Quiz 12	Light 3	
	May 2	CH30: Light emission		<b>HW 14</b> Chapter 30: RCh Odd questions.
16	May 7	Quiz 13	Light 4	
	May 9	<b>Exam 3</b>		
17	May 14	<b>Final</b>		10:00 am – 12:45 pm

Notes: RCh = Reading Check Questions; T&S = Think and Solve; T&R = Think and Rank; T&E = Think and Explain; T&D = Think and Discuss in *Conceptual Physics, 12<sup>th</sup> Edition*;