

PSCI 2303: Physical Science I

CRN: 11234

Term: Fall 2017

Time: Monday Wednesday 10:30 am - 12:20 pm

Where: PSCI 224

Instructor: Dr. Huiyan Yang
Office: PSCI 215B
Phone: 747-7510
Email: hyang4@utep.edu
Office Hours: TR 10:30 - 11:30 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

(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:

- Must write the question before the answer for completeness.
- May be typed or hand-written.
- Due at start of each class. You are responsible to hand in all assignments. Late assignments accepted, but penalized. Remember, completing tasks on time makes a good impression!

Exams:

- Make up exams will be given only in extraordinary cases of illness or emergencies. In all cases documentation will be required.
- Bring a calculator; cell phones will not be allowed.

Additional Course Policies:

- Punctual attendance is critical. Class begins promptly at 1:00 pm. 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	Quiz and Lab	Homework
1	Aug 28	Newton's first law of motion-Inertia	Quiz 1 Kinematics Experiment 1	HW1 Chapter 2: RCh 4-20; T&R 31-36; T&E. 47, 51, 56 58, 63
	Aug 30			
2	Sep 4	Labor Day	No Class	
	Sep 6	Linear motion	Quiz 2 Kinematics Experiment 2	HW 2 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
3	Sep 11			
4	Sep 13	Newton's second law of motion	Quiz 3 Kinematics Experiment 3	HW 3 Chapter 4: RCh 10-29; T&S 52; T&E 61, 74, 80; HWs from Student Material p.57-58
	Sep 18			
5	Sep 20	Newton's third law of motion	Quiz 4 Kinematics Experiment 4	HW 4 Chapter 5: RCh 1-9; T&E 38, 55; HWs from Student Material p.59-60
	Sep 25			
6	Sep 27	Momentum	Quiz 5 Kinematics Experiment 5	HW 5 Chapter 6: RCh Odd questions; HWs from Student Material p.61-62.
	Oct 2			
7	Oct 4	Energy	Quiz 6 Kinematics Experiment 6	HW 6 Chapter 7: RCh Odd questions; HWs from Student Material p.63-64.
	Oct 9			
	Oct 11		Exam 1	
8	Oct 16	Heat and temperature	Quiz 7 Heat Investigation 1	HW 7 Chapter 15: RCh Odd questions; T&S 36-41
	Oct 18			
9	Oct 23	Heat transfer	Quiz 8 Heat Investigation 2	HW 8 Chapter 16: RCh Odd questions;
	Oct 25			
10	Oct 30	Change of phase	Quiz 9 Heat Investigation 3	HW 9 Chapter 17: RCh Odd questions.
	Nov 1			
11	Nov 6	Thermodynamics	Exam 2	HW 10 Chapter 18: RCh Odd questions.
	Nov 8			
12	Nov 13	Properties of light	Quiz 10 Light Investigation 1	HW 11 Chapter 26: RCh Odd questions.
	Nov 15			
13	Nov 20	Color	Quiz 11 Light Investigation 2	HW 12 Chapter 27: RCh Odd questions.
	Nov 22			
14	Nov 27	Reflection and refraction	Quiz 12 Light Investigation 3	HW 13 Chapter 28: RCh Odd questions.
	Nov 29			
15	Dec 4	Light emission	Exam 3	HW 14 Chapter 30: RCh Odd questions.
	Dec 6			
16	Dec 11 - 15		Final Exam	

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, 12th Edition*;