

PSCI 3304: Physical Science II

CRN: 11165

Term: Fall 2020

Time: MW 8:30 am - 10:20 am

Where: PSCI 220

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

Required Materials:

Textbook: The Physical Universe, 17th edition, by Krauskopf and Beiser. *McGraw Hill Connect Registration* required for homework assignments.

<https://connect.mheducation.com/class/h-yang-fall-2020---11165>

Lab: Pivot Interactives and PhET Interactive Simulations

Class key for Pivot: d14991ba

Scientific calculator is required

Textbook Chapters:

Chapter 6 Electricity and Magnetism

Chapter 7 Waves

Chapter 8 Nucleus

Chapter 9 The Atom

Chapter 10 The Periodic Law

Chapter 11 Crystals, Ions, and Solutions

Chapter 12 Chemical Reactions

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 | 10% |
| Quiz | 10% |
| Exams (4) | 60% |
| Exercises | 10% (extra) |

Lab Policy: Lab is mandatory. There is no makeup for missed labs. The worst lab score will be dropped.

Homework Policy:

Homework is assigned in McGraw Hill Connect (*Registration* required for <https://connect.mheducation.com/class/h-yang-fall-2020---11165>). There is no makeup of missed homework. The worst score will be dropped.

Exams and Quizzes:

- No makeup exam or quiz is given. The worst exam will be dropped, and the worst quiz will be dropped.
- Bring a calculator; cell phones are not 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.

Academic Integrity Policy:

Acts of academic dishonesty will not be tolerated in this class. Lapses in academic integrity will be referred to the Dean of Students, as required at <http://academics.utep.edu/Default.aspx?tabid=23785>.

Disability Statement:

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.

Tentative Timeline:

| Week | Date | Lecture | Lab and Exam | Homework (HW)* |
|------|------------------|-------------------------------------|--|----------------|
| 1 | Aug 24 Aug 26 | Ch 6 Electric Charge | PhET: Coulomb's Law | HW 1 assigned |
| 2 | Aug 31 Sep 2 | Ch 6 Electric Current | PhET: Circuit Construction Kit: DC | HW 1 due |
| 3 | Sep 7 | Labor Day, no class | | |
| | Sep 9 | | Ch 6 Electric Current* | HW 2 due** |
| 4 | Sep 14 Sep 16 | Ch 6 Magnetism | Pivot Interactives: Force on a Current-Carrying Conductor in a Magnetic Field (beta) | |
| 5 | Sep 21 Sep 23 | Review for Exam 1 | Exam 1 | HW 3 due |
| 6 | Oct 28 Sep 30 | Ch 7 Waves | Pivot Interactives: Exploring Properties of Transverse Mechanical Waves | HW 4 assigned |
| 7 | Oct 5 Oct 7 | Ch 7 Waves | PhET: Bending Light Pivot Interactives: Angle of Refraction | HW 4 due |
| 8 | Oct 12 Oct 14 | Review for Exam 2 | Exam 2 | HW 5 due |
| 9 | Oct 19 Oct 21 | Ch 8 Nucleus | Pivot Interactives: Radioactive Decay and Half Life | HW 6 assigned |
| 10 | Oct 26 Oct 28 | Ch 9 Atom | Pivot Interactives: Gas Emission Spectra | HW 6 due |
| 11 | Nov 2 Nov 4 | Ch 10 Periodic Table | PhET: Build an Atom PhET: Build a Molecule | HW 7 due |
| 12 | Nov 9 Nov 11 | Review for Exam 3 | Exam 3 | HW 8 due |
| 13 | Nov 16 Nov 18 | Ch 11 Crystals, Ions, and Solutions | Chemistry Lab 1 | HW 9 assigned |
| 14 | Nov 23 Nov 25 | Ch 12 Chemical Reactions | Chemistry Lab 2 | HW 9 due |
| 15 | Nov 30 Dec 2 | Ch 12 Chemical Reactions | Review for Exam 4* | HW 10 due |
| 16 | Dec 9 | | Exam 4 | HW 11 due |

* Lectures are on Monday, and lab and exams are on Wednesday, unless noted otherwise.

* Homework (reading assignment) is assigned and graded in Connect (<https://connect.mheducation.com/class/h-yang-fall-2020-11165>). The due day of homework is on Monday, besides HW2 that is due on Wednesday as Monday is holiday.

* Quizzes and exercises are given in blackboard and due on the same day as homework.

* Lab reports are due on the same day the lab sessions are given.

Important Dates

Sept 9th: Fall Census Day

Oct 30th: Fall Drop/Withdrawal Deadline