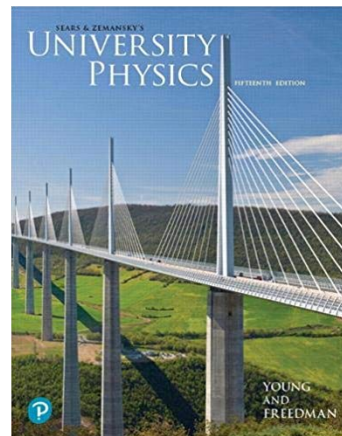


Syllabus

Course Summary: Physics 7E is the 3rd course in UCI's introductory sequence on classical physics, in which rigorous and quantitative mathematical modeling is used to explain and predict physical phenomena. This introductory series helps students develop a physical understanding of their surroundings and of the technologies found in everyday life. In this course, students study the behavior of fluids, waves, sound, and light.

Course Objectives: At the conclusion of this course, students will be able to demonstrate:

- a knowledge of fundamental laws governing oscillations and periodic motion
- a descriptive, conceptual understanding of waves including sound and light
- mathematical competency describing waves quantitatively
- the ability to analyze and solve numeric problems, including the selection of appropriate mathematical formula and techniques
- the ability to make quantitative models and descriptive predictions of physical behavior



Class Meetings: This version of Physics 7E is a fully *ONLINE* class. We will *NOT* meet on campus for lecture, discussions, or office hours. Instead, students gain access to this online portal containing all course materials, instructions, and assignments. The course portal will formally open for student access during Week 0 and the class will end with an optional Final Exam. All quizzes and exams are administered online.

Class Pacing: Summer Session courses are intensive, 5-week courses covering the same material as UCI's traditional, 10-week courses. Completing this Physics course successfully will require dedication and focus! The course calendar shows study activities scheduled 7 days per week, for a total of approximately 20 hours per week of work. Students are encouraged to work ahead of the study schedule, especially since the *ONLINE* format does not require on-campus lectures. Before enrolling in this course, students should reserve substantial time in their daily schedules.

Pre-Requisites: Physics 7C and Math 2AB. Physics 7D and Physics 7E are not sequential and they may be taken in any order.

Co-Requisites: Physics 7E does not have a laboratory or any other co-requisites.

Textbook: *University Physics, 15th Edition*, by Young and Freedman. This course covers Chapters 12, 14-16, and 32-36. A special, paperback edition containing only these chapters is available from the UCI bookstore. Students are welcome to purchase the *eBook* or use other editions of *University Physics* if they will be responsible for any differences between editions.

Other Requirements: This course uses *MyLab & Mastering* for homework, a Pearson product similar to *MasteringPhysics* that is integrated into this Canvas site. Each student will need to maintain one *MyLab & Mastering* account to earn credit for homework.

Alternate Versions: This 5-week, *ONLINE* version of Physics 7E is best for very independent students who have done well in their previous physics courses. Many students benefit from taking the course during the school year in a slower, 10-week format (Fall or Spring). Both versions of the course cover the same material, so students should

choose the format that will be best for them.

Course Assignments

The following is a brief summary of the types of work students complete during the course. More detailed instructions for students are found in the following pages of [Let's Get Started \(https://canvas.eee.uci.edu/courses/46662/pages/lets-get-started-reading-assignments\)](https://canvas.eee.uci.edu/courses/46662/pages/lets-get-started-reading-assignments) introductory materials.

Weekly Assignments: Every week, students complete a learning sequence consisting of five activities:

- 1) Reading:** Reading assignments are posted in front of every lecture and on the *MyLab & Mastering* pages. Read your textbook before watching each lecture!
- 2) Lectures:** Students are responsible for watching a recorded lecture and completing the questions embedded in each recording. Watch each lecture before midnight on its assigned day to receive full credit.
- 3) Homework:** Each lecture has mathematical Practice and Homework problems that students complete in *MyLab & Mastering*. The Practice problems are ungraded; they provide tutorials, hints, and step-by-step instructions on problem solving. Complete Homework problems before midnight on their assigned day to receive full credit.
- 4) Assessment:** Twice per week, students demonstrate their growing mastery with two different kinds of quizzes. A "Calculation Skills" quiz tests for mastery with physics variables, and a "Problem Solving" quiz tests for proficiency solving physics word problems. Both types of quiz are open-book and timed. Read more rules and information at [Instructions for Weekly Quizzes \(https://canvas.eee.uci.edu/courses/46662/pages/instructions-for-weekly-quizzes\)](https://canvas.eee.uci.edu/courses/46662/pages/instructions-for-weekly-quizzes).
- 5) Discussion and Re-Assessment:** In discussion forums throughout the week, students may ask and answer questions about any assignment. In *Zoom* office hours, instructors work with individual students and small groups to answer additional questions and discuss problem solving strategies. Every Sunday, students have Re-Assessment opportunities to improve their quiz scores for that week.

Final Exam: Most students will finish the course at the end of Week 5 and not take any Final Exam. The Final Exam is only for students at risk of failing the course -- it is their last chance to demonstrate the minimum standards for passing. The instructors will notify those students individually to take an online exam at 4:00 pm on Wednesday, September 7. More details are available on the [Final Exam Information \(https://canvas.eee.uci.edu/courses/46662/pages/final-exam-information\)](https://canvas.eee.uci.edu/courses/46662/pages/final-exam-information) page.

Course Grading

Grading Policy: Most of the coursework is graded on a Complete/Incomplete basis. Students must complete at least 80% of the required materials to pass the course with a C- or higher.

- ≥80% average completion of all lectures (as recorded by the *YuJa* lecture server)
- ≥80% average score for all assigned homework problems (as recorded by *MyLab & Mastering*)
- ≥80% average mastery on Calculation Skills quizzes

For students who meet these minimum requirements, final letter grades will be calculated from the average of each

student's Problem Solving Quiz scores. Students have up to 3 chances to earn a perfect score on each quiz. Letter grades will be assigned using a straight scale of $\geq 90\%$ = A-, $\geq 80\%$ = B-, $\geq 70\%$ = C-, etc.

Each week, the instructors will update the Canvas Gradebook to display students' completion rate for Lectures, Homework, and Calculation Skills mastery. Check that your scores are recorded correctly and notify the instructor if there are technical problems or other errors with your reported scores. No scores will be changed after the last day of classes.

Calculator Policy: On quizzes and exams, students are allowed to use any simple, non-programmable, non-graphing calculators. These include the TI-30Xa, TI-30XIIS, TI-34II, TI-36X Solar, Casio fx-300MSPLUS, Sharp EL531VB-BL, HP-9S, HP-30S, or similar models.

Cheating: Anyone caught cheating on any assignment will automatically fail this course. In addition, the appropriate deans will be notified, and this course will strictly enforce the [UCI policies on academic honesty](https://aisc.uci.edu/students/academic-integrity/index.php) (<https://aisc.uci.edu/students/academic-integrity/index.php>). Cheating includes giving or receiving assistance on any assessment, submitting work that is copied from another person's work, and tampering with and/or re-submitting exams or homework. Cheating does not include discussing problems with other students or using outside reference materials to learn more. You are **encouraged** to learn by working together, but any work turned in for a grade must be your own effort and not someone else's.

Additional Resources

Course Information: Throughout the quarter it may be necessary to give additional instructions or announcements. This information will be posted on the Canvas Announcements page. Please make sure to regularly check the e-mail account associated with your student status, or change your Canvas account to use your preferred e-mail. This option is located under Account -> Settings -> +Email Address.

Students with Disabilities: The University of California, Irvine, is committed to providing a barrier-free environment for learning and an electronic environment that is accessible to everyone, including individuals with disabilities. If you have a disability and feel you need accommodations in this program or a course, please contact the [Disability Services Center](https://dsc.uci.edu/) (<https://dsc.uci.edu/>).

Student Support Services: Resources to help students be successful with online courses are provided by DTEI and OIT at <https://sites.uci.edu/learnanywhere/> (<https://sites.uci.edu/learnanywhere/>). For Technical Support, contact the OIT helpdesk at oit@uci.edu (<mailto:oit@uci.edu>) or (949) 824-2222. For Health, Wellness, and Counseling information, visit the [UCI Counseling Center website](http://www.counseling.uci.edu/) (<http://www.counseling.uci.edu/>) or the UCI Student Portal at <https://students.uci.edu/> (<https://students.uci.edu/>).

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