

Cal Poly Physics 141

Winter 2019 Course Syllabus

Lecture:

141-01 MTWR 5:10-6, Building 53, Room 0201

141-10 MTWR 6:10-7, Building 53, Room 0201

Instructor: Michelle Kaul

Office Location: Building 116, Room 106

Hours: W 1 – 2:30, R 3:30 -5 pm

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Prerequisite: Math 141 with grade C- or better and Math 142 or Math 182 (or concurrent enrollment).

Required Materials:

Textbook: Randall D. Knight, "Physics for Scientists and Engineers: A Strategic Approach", 4th Edition, Pearson Education, ISBN-13: 9780134081496 or ISBN-10: 0134081498 .

Calculator: A scientific calculator or graphing calculator is required.

PolyLearn: Most course materials and resources will be posted on Polylearn. These can also be found on my website. It is your responsibility to check for updates.

Course Outline and Objectives: This course is primarily intended for engineering and science students exploring the fundamental principles of mechanics: vectors, particle kinematics, equilibrium of a rigid body, work and energy, linear momentum, and rotational kinematics and dynamics.

We will begin with a brief overview of the topics we will cover and review some material necessary for this class. We will then cover chapters 1-12 in their entirety, and portions of chapters 13 if time allows.. Learning problem solving skills will be crucial to your understanding of college physics and overall success in this course. Keeping up with lectures will be essential to your success on exams. Physics is best learned over time (problem after problem after problem...); don't wait until the last minute to prepare. It is in your best interest to read ahead, review lecture notes, keep up with the homework, get help, and ask questions.

Course Learning Outcomes: Please refer to the Physics 141 outline found on: http://content-calpoly-edu.s3.amazonaws.com/physics/1/other_docs/Physics141CourseOutline109.pdf .

Exams: Midterm exams will be based on lecture material, homework, quizzes, and worksheets. See schedule for the dates of the two midterm exams and the final exam. A lowest midterm exam score will be replaced by your final, if higher. There will be no make-up exams and a missed exam will be replaced by your final exam score. Your highest midterm score will be worth 25% and your lowest will be worth 20% of your final grade. The final exam is cumulative.

Quizzes: Quizzes based on lecture and homework material should be expected at the end of each week except on the last week and weeks with scheduled midterms. On occasion, quizzes will be collaborative or take-home. I will announce in class what type of quiz to expect one lecture prior. Any missed quiz will receive a score of 0, but I will drop your lowest quiz score.

Homework: Homework will consist of mandatory textbook problems and worksheets. Not all homework assigned will be collected. There will be 6 homework assignments collected on the days listed on the schedule (quiz days). The material to be collected for each assignment will be announced 1-2 lectures ahead. Assignments will receive a grade of 0, 5, or 10, depending on completeness (0 - up to one-third complete, 5 – one to two-thirds complete, 10 – at least two-thirds complete). I will check for completion and problem-solving techniques, not correct solutions, which will be up to you to check and correct. I will drop the lowest homework score.

Homework must be legible for credit!

Grading:	Exams	= 45% of final grade
	Quizzes	= 25% of final grade
	Homework	= 5% of final grade
	Final Exam	= 25% of final grade

Grading Scheme: A [90, ∞), B [80,90), C [70, 80), D [60, 70), F ($-\infty$, 60)

Important Dates:

- **Midterm1:** January 31st **Midterm2:** February 28th
- **Final Exam:** 141 01: Monday March 18th, 4:10-7pm
141 10: Wednesday March 20th, 4:10-7pm
- ***Final Exams must be taken on these dates and will not be changed***
- **Academic Holidays:** January 21st, February 18th
- **Last day of class:** March 15th

Office Hours & Extra Help: For those requiring individual assistance, I will be available for questions during office hours or by appointment. Also, feel free to send questions via email. I encourage you to take advantage of the resources offered by the university (e.g. The Learning Center <http://www.physics.calpoly.edu/learningcenter> , tutors, supplementary texts, etc.) It is in my interest to help you succeed in understanding the course material and to do well in this course.

Attendance: Your success in this course is dependent upon your attendance: the material covered in lecture is essential to your success on exams, quizzes, and homework assignments. Furthermore, homework due dates or adjustments will be announced in class, exam type problems will be presented in class and extra credit may be given. The acceptance of late assignments and extra credit will be based solely on your attendance record. Missing just one lecture could significantly affect your performance!

Cal Poly Policies: For class conduct and responsibilities, please refer to the university policies, <http://catalog.calpoly.edu/universypolicies/> and the office of student rights and responsibilities, <http://www.osrr.calpoly.edu/> . We will adhere to these policies and cheating will not be tolerated.

Students with Disabilities: If you have a disability and require special accommodations, please contact the Disability Resource Center (DRC) for information: <https://drc.calpoly.edu> .

"What we know is a drop, what we don't know is an ocean." Isaac Newton