

## Physics 50 Course Syllabus

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| <b>Instructor:</b>    | Ellen Judd   |
| <b>Lecture:</b>       | Monday and Wednesday 5:30-7:20 PM, Room S35  |
| <b>Office Hours:</b>  | Monday and Wednesday 7:30-8:30 PM in our classroom, S35.<br>Additional office hours by request.  |
| <b>Contact Info:</b>  | <a href="mailto:juddellen@fhda.edu">juddellen@fhda.edu</a> or 650-248-8931 (Please no texts after 10 PM. Feel free to email any time.)                                     |
| <b>Class Website:</b> | Canvas: <a href="https://deanza.instructure.com">https://deanza.instructure.com</a> or use the link on MyPortal<br>Use the same login ID and password you use for MyPortal |

### Required Text & Materials:

1. *Physics for Scientists and Engineers*, Serway and Jewett, 9<sup>th</sup> edition. Complete book or Volume 1.  
Or *Physics*, James S. Walker, 4<sup>th</sup> edition
2. Scientific Calculator (should cost about \$10) – a graphing calculator is OK but not necessary

### Optional Materials:

1. *smartPhysics Classical Mechanics*, Gladding, Selen, and Stelzer. This book covers the same topics as the textbook more concisely.

**Homework:** Homework problems will be assigned weekly. Working through these problems is crucial for understanding the material in this course, and for doing well on the exams. Students are encouraged to work together on the homework. However, it is not acceptable to simply copy another student's work. If asked, students should be able to explain how they reached their answer for each homework problem. The lowest homework score will be dropped. This is meant to allow some flexibility for personal emergencies. Late homeworks will be marked down by 10% per day late.

**Attendance and Participation:** Students are expected to attend class and to participate. Participation grade will be based on attendance and engagement during in-class activities. Participation will be graded on the effort and engagement shown during class, rather than on answering questions correctly. Students may miss two classes without affecting their participation grade. If a student misses a lecture, he/she will be responsible for learning the missed material from the textbook, and for getting and completing the homework assignment for the week. **Students must attend class on exam days.**

**Classroom expectations:** Treat others with respect at all times. You should be engaged with learning physics during the entire class period. Please turn off and put away all electronic devices before the start of class.

**Exams:** There will be three midterm exams, a final exam, and a project. Exams will include short-answer questions and calculations similar to homework problems. A missed exam results in a zero for that test. I do not reschedule exams for any reason. Your lowest exam score will be replaced by your final grade, if it helps

you. Students will need a scientific calculator for exams (not a phone) and will be allowed one piece of paper with equations on it during exams. You must take the final to pass the class.

**Academic Integrity:** A score of zero will be given on any assignment/test where cheating is involved. Any cheating will also result in a referral to college administration. For this class cheating means: (1) providing to other students answers or partial answers to exam questions (2) obtaining from other students answers or partial answers to exam questions, and (3) obtaining information or direct answers from unauthorized materials during exams. Students who need help in understanding exam questions should consult with me to avoid the appearance of cheating. Please note that you are encouraged to work with your fellow students on homework assignments. A calculator is the only electronic device you may use on a quiz or exam.

**Dropping and Changing Grading Options:** It is the student's responsibility to drop if they no longer want to take the class. It is the student's responsibility to be aware of deadlines for dropping the class and for changing grading options.

**Disability Statement:** Any student who feels he or she may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. I will work with the Disability Resource Center to coordinate reasonable accommodations for students with documented disabilities. For best results this should be addressed as soon as possible.

**Office Hours:** I enjoy working one-on-one with students in office hours. I can help with a problem you are stuck on, strategize about productive study habits, or discuss extensions and applications of concepts learned in class. I encourage you to come and meet with me during office hours. If the posted times don't work for you, let me know and we can arrange a time to meet.

I know that you can all be successful in this course if you attend lectures, work homework problems, participate strongly in class, work additional problems, ask questions, and work more problems. I am looking forward to a great quarter!

**Course Grade:** Your final grade will be based on the total number of points you receive for the following:

| <u>Item</u>                    | <u>Points</u> |
|--------------------------------|---------------|
| Homework                       | 200           |
| Class Participation/Attendance | 160           |
| Exam 1                         | 130           |
| Exam 2                         | 130           |
| Exam 3                         | 130           |
| Finding Physics project        | 50            |
| Final Exam                     | 200           |

**IMPORTANT** – You must take the final to pass the class.

I may adjust the curve based on the class results. However, I strive for:

|                                   |               |            |
|-----------------------------------|---------------|------------|
| A+: for extraordinary achievement | A: 93% - 100% | A-: 90-92% |
| B+: 88-89%                        | B: 83-87%     | B-: 80-82% |
| C+: 78-79%                        | C: 73-77%     | C-: 70-72% |
| D: 60-69%                         | F: < 60%      |            |

**Schedule of Classes – Exam dates are fixed but the topics covered each day are subject to change**

|            |   |
|------------|---|
| Mon Jan 7  | Newton's laws, forces, vectors                                    |
| Wed Jan 9  | Newton's laws, forces, vectors                                    |
| Mon Jan 14 | Newton's Laws   |
| Wed Jan 16 | Position, velocity and acceleration: Kinematics                   |
| Mon Jan 21 | <b>MLK Day, no class</b>  |
| Wed Jan 23 | Kinematics  |
| Mon Jan 28 | <b>Exam 1,</b>  |
| Wed Jan 30 | Projectile motion   |
| Mon Feb 4  | Circular motion   |
| Wed Feb 6  | Friction, Resistive forces  |
| Mon Feb 11 | Rotational Motion   |
| Wed Feb 13 | <b>Exam 2</b>   |
| Mon Feb 18 | <b>Presidents' Day, no class</b>                                  |
| Wed Feb 20 | Torque  |
| Mon Feb 25 | Work and Energy   |
| Wed Feb 27 | Energy Conservation   |
| Mon Mar 4  | Energy Conservation   |
| Wed Mar 6  | <b>Exam 3</b>   |
| Mon Mar 11 | Momentum Conservation   |
| Wed Mar 13 | Momentum Conservation   |
| Mon Mar 18 | Momentum Conservation <b>Finding Physics Written Projects Due</b> |
| Wed Mar 20 | Review  |
| Mon Mar 25 | <b>Final Exam, 6:15 PM – 8:15 PM</b>                              |

**Student Learning Outcome(s):**

\*Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of mechanics.