

Physics 251 University Physics I, Fall 2011
Tu-Th 10:00-11:20 AM, Ching Hall 250
Fr 11:30 AM -12:20 PM Henry Hall 221

- Instructor: Eric Dodson Office: Wesselkamper 110
Phone: 739-8363 email: eric.dodson@chaminade.edu
- Office hours: TBA
And by appointment
- Text : smartPhysics Classical Mechanics , Gladding , Selen and Steltzer
These are new textbooks that have been provided by the publisher.
Also provided is a set of online “pre-lectures” to accompany the text
- Prerequisites: MA210, Concurrent enrollment in PHY251L is assumed
- Content: This course is the first part of a yearlong introductory physics sequence focusing on the application of physical principles, logical reasoning and mathematical analysis needed to understand a broad range of natural phenomena. Topics include classical mechanics, fluids and thermodynamics
- Grading: The course will be graded on a curve with the following breakdown
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| Homework | 10% |
| Pre-lectures | 10% |
| Quizzes | 15% |
| Midterms | 45% |
| Final Exam | 20% |
- Website: TBA
- Homework: Homework will be collected each Friday (excluding weeks with midterms). I encourage you to work together on homework, but you must turn in your own work. Remember the main purpose of the homework is to help you understand the material. Late homework will not be accepted. One homework will be dropped at the end of the semester.
- Quizzes: A ten to fifteen minute quiz will be given promptly at the beginning of class on selected Fridays (To be announced the previous class day). Each student's lowest quiz score will be dropped at the end of the semester
- Midterms: Three midterms will be given. Our midterms will consist of twenty multiple choice problems worth three points apiece and two twenty point problems that will be graded for partial credit. The midterms will be closed book, closed notes. A formula sheet will be provided.
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| Midterm I | Thursday, September 15 |
| Midterm II | Thursday, October 13 |
| Midterm III | Thursday, November 10 |
- Final Exam: Date and Time: TBA
The final exam will be comprehensive
- Helpful advice: Come to class every day. Read the assigned sections from the textbook before class. Ask questions. Get an early start on the homework and come get help if you get stuck. Try to work the homework problems using only the formula sheet. Stay on top of the material (Don't cram). If you are having difficulty come see me ASAP
Physics is not a spectator sport, the only way to get better is to practice.

The table below shows the proposed schedule of the material to be covered and the associated units from the textbook

Week	Topic(s)	Unit(s)
1	Units, Coordinate Systems, Position, Velocity, Acceleration, 1-D kinematics	1
2	Motion with constant acceleration, Graphical analysis of 1-D motion, Vectors	1,2
3	2-D kinematics, Projectile motion	2
4	Projectile motion (cont.), Trajectories, Midterm 1	2, 3
5	Newton's Laws, Free-body-diagrams, Weight and mass	4, 5
6	Friction, Circular Motion	6, 3
7	Work, Kinetic Energy, Potential Energy	7, 8, 9
8	More energy, Power, Midterm 2	7, 8, 9
9	Center of Mass, Momentum, Collisions, Impulse	10 – 13
10	Rotational kinematics, Moment of Inertia, Torque, Rotational Dynamics	14 – 16
11	Statics, Angular Momentum	17, 18, 19
12	Simple Harmonic Motion	21, 22
13	Fluids	25, 26
14	Temperature, Specific Heat, Ideal Gas Law, Phase Changes	Supp. Material
15	Laws of Thermodynamics	Supp. Material

POLICY ON CELL PHONES AND MUSIC DEVICES:

Because electronic devices, such as cellular phones, pagers, and musical devices can be disruptive to normal classes, the following is the policy for all Natural Sciences and Mathematics classes at Chaminade. Electronic devices are also prohibited during exams.

Use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes at Chaminade, unless specifically permitted by your instructor. Use of cell phones and music devices in laboratories is a safety issue. In addition, use of cell phones and music devices in any class is discourteous and may lead to suspicion of academic misconduct. Students who can not comply with this rule will be asked to leave class and may be subject to laboratory safety violation fines. Please refer any questions to the Dean of Natural Sciences and Mathematics.