

Syllabus for Physics 170¹ - General Physics - Spring 2011
Class: Mon, Tue, Wed, Fri 9:30 – 10:20 in Watanabe Hall 420
Web page: <http://www.phys.hawaii.edu/~sevahsen/phys170/>

Instructor: Prof. Sven E. Vahsen Phone: (808) 956 2985
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Office Hours: Mon 10:45 am – noon Grader: Natalie Nagata

Required Materials (all available from UH Manoa bookstore)

- Textbook: “University Physics”, 12th edition (Young and Freedman). This course covers chapters 1-20 (Volume 1).
- License for Mastering Physics, an online learning system that will be used for part of the weekly homework (included with new copies of textbook)
- iClicker is *required* - **please register it through Laulima (<https://laulima.hawaii.edu/>)**

Course Description

Introductory Physics with Calculus: Mechanics of particles and rigid bodies, wave motion, thermodynamics and kinetic theory. Prerequisites: MATH 242 (or concurrent) or MATH 252A (or concurrent). MATH 216 with consent.

Learning Goals

Students should understand the main concepts in each book chapter (see end-of-chapter summaries), and be able to apply these concepts when solving problems of similar difficulty as homework.

Examinations

3 Midterms (1h, each covers 1/3rd of material), Final (probably 2h, cumulative)
→ times and dates to be decided

Evaluation

Class Attendance & Participation (5+5%=10%) [via iClicker, starting in week 2]
Homework (20%)
Best two midterms (2x15%=30%)
Final (40%)

¹ created 2/3/2011. Check course webpage for updates.

Tentative Course Schedule

We will work through the course material (chapters 1 – 20) in the same order as the book, and spend (on average) three lectures per chapter:

Mechanics I (Chapters 1-5)	Jan 10 – Feb 4
Midterm 1	Feb 11
Mechanics II (Chapters 6-10)	Feb 8 – Mar 7
Midterm 2	approx. Mar 8
Mechanics III + Waves (Chapters 11-15)	March 9 – Apr 4
Midterm 3	approx. Apr 5
Acoustics + Thermodynamics (Chapters 16-20)	Apr 6 – May 4
Final Exam (cumulative)	during week of May 9

Homework

Weekly homework will be announced in class, usually on Tuesdays, and is due by the beginning of class the following Tuesday. Approximately half the homework will be written homework, corrected by a grader, the rest will be online through Mastering Physics. For the written homework (as for exams), **always show your work! Just writing down the final answer (even if correct), will only get you a small fraction of the total possible score.**

Note from the Professor

Welcome to Physics 170! I will do my best to help you learn the material. Please don't hesitate to contact me if you need assistance with anything. Email is usually the best way to reach me, but physics questions are much easier discussed in person, so please come and see me during office hours for those. For quick questions, I will also be available for a limited time after each class. If you need to meet at a different time, then please email me to set up an appointment.

Homework and important announcements will be made in class when possible, but some information may instead be announced via the course webpage. So please check <http://www.phys.hawaii.edu/~sevahsen/phys170/> regularly.

Good luck with the course!

Sincerely,
Sven Vahsen