

PY 195 INFORMATION

Fall 2013

Instructor: Sidney Redner, redner@bu.edu, SCI 321, 353-2618

Office Hours: Tues. 10:30–11:30 & Fri. 10:30–11:30.

Course Website: physics.bu.edu/~redner/195.html.

General: This course will introduce you to qualitative reasoning methods to understand a wide range of physical phenomena. The emphasis will be on fun, on class discussion, and on class discovery.

Text: *The Flying Circus of Physics*, 2nd edition, J. Walker (J. S. Wiley, 2007).

Course Organization:

Weekly Meeting: There will be class meetings once per week on Thursdays from 4–5pm in SCI 352, starting on Sept. 12. (Note that the first class falls on the Jewish New Year and will have to be rescheduled.)

Homework: There will be weekly reading assignments from the text (see below). You will be expected to think carefully about the physical problems discussed in the readings and be ready to discuss this material intelligently in class meetings. There will be 2–3 short quizzes (~ 10 minutes) at unannounced times.

Approximate Class Schedule:

Date	Reading	Details
Sept. 12	up to section 1.40	course introduction; introduction to qualitative reasoning
Sept. 19	up to section 1.118	mechanics
Sept. 26	finish chapter 1	mechanics
Oct. 3	up to section 2.68	fluids
Oct. 10	finish chapter 2	fluids
Oct. 17	chapter 3	acoustics
Oct. 24	up to section 4.50	thermodynamics
Oct. 31	finish chapter 4	thermodynamics
Nov. 7	up to section 5.28	electricity and magnetism
Nov. 14	finish chapter 5	electricity and magnetism
Nov. 21	up to section 6.59	optics
Dec. 5	finish chapter 6	optics
Dec. 12	to be determined	to be determined

Grading: The course grade will be primarily based on class participation and quiz scores according to the rough scheme given below. Particularly excellent quiz scores or excellent in-class questions may help improve your grade.

C or worse:	miss 3 or more meetings; no class participation; poor quizzes
B:	miss no more than 2 meetings; some class participation; OK quizzes
A:	miss no more than 1 meeting; significant class participation; good quizzes