

PHS 212, Engineering Physics
Spring 1998

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Information & Assignments

TEXT: The text for this course is “Physics for Scientists & Engineers” by L.S. Lerner

Good Books:

Thinking Physics by L.E. Epstine (Insight Press, 1988).

The Feynman Lectures on Physics, Vols. 1, 2 & 3 by R.P. Feynman, R.B. Leighton and M. Sands (Addison-Wesley, 1965).

The Cartoon Guide to Physics, by L. Gonick (Harper Perennial, 1991).

Physics for Engineering and Science, Schamm’s Outline.

Office Hours: M, T, W, F, 8:30-9:30 am, by appointment other times

Course: Lectures will be on Mondays, Tuesdays, Wednesdays and Fridays from 10:00 am to 10:50 am. Material presented in class will parallel that in the text, but may differ in emphasis and content. The most important issues to be considered in class surround the solution of problems and the understanding of concepts. This semester covers a large number of topics, principally in thermodynamics, electricity and magnetism, and wave motion.

Quizzes & Exams: There will be a brief quiz weekly, usually on Tuesday. The questions will be both “show-your-work” variety and definitions and concepts. There will be three mid-term exams. The test questions will be taken from homework and examples worked in class. A student manual and homework solutions are on reserve in the library. No make-up exams will be given.

Homework: Homework assignments will not be turned in, but you are strongly encouraged to attempt all assigned problems. Problems on the quizzes and exams will be identical or very similar to the homework and other end of chapter problems.

Final Exam: The final exam is mandatory, with part of the content devoted to the previously untested material from the end of the semester, depending on the situation at that time. The remainder of the final will be comprehensive and cover all previously tested material.

Grades: Final course grades will be determined by total points generated as follows:

Quizzes (~11)	35%
Exams (3)	30%
Final (1)	30%
Extra Assignment	5%

<u>Chapter</u>	<u>Reading</u>	<u>Problems</u>
14	14.1-14.5	14.7, 14.21, 14.25, 14.41, 14.49, 14.59
15	15.1, 15.2, 15.5, 15.6	15.2, 15.11, 15.19
16	SKIP	
17	ALL	17.3, 17.14, 17.16, 17.45, 17.52, 17.59
18	18.1-18.3	18.2, 18.33, 18.47
19	ALL	19.5, 19.9, 19.39, 19.49, 19.50
20	20.1-20.3, 20.5	20.3, 20.5, 20.24, 20.34
21	ALL	21.11, 21.13, 21.27, 21.40, 21.48, 21.55
22	SKIP	
23	23.1-23.4	23.5, 23.31, 23.27, 23.31
24	24.1-24.3	24.5, 24.26
25	25.1, 25.2	25.5, 25.10
26	26.1-26.3, 26.5	26.6, 26.10, 26.12, 26.33
27	27.1-27.5	27.12, 27.17, 27.30
28	28.1-28.5	28.10, 28.36, 28.18
29	29.1-29.3	29.1, 29.5, 29.39
30	30.1-30.4	30.1, 30.8, 30.25
31	SKIP	
32	SKIP	
33	SKIP	
34	34.1-34.4	34.9, 34.10, 34.12, 34.40
35	35.1-35.6, 35.8	35.15, 35.37, 35.39
36	36.1-36.4	36.2, 36.9, 36.31, 36.44, 36.57
37	37.1-37.5f	37.7, 37.17, 37.55