

Physics 22 Problem Set 2

Harry Nelson

due Monday, April 16, In Class

Course Info: The instructor is Harry Nelson, the TA is Joel Varley. A web page for the course will be set up at <http://hep.ucsb.edu/courses/ph22>.

We meet MWF 1:00-1:50pm in 1640 Broida. There are **two sections**, attendance at **both** is mandatory. Joel Varley's section will take place Friday 11:00-11:50pm in 1802 Psychology, and Harry Nelson's will take place Friday 2:00-2:50pm in 2129 Girvetz. Harry Nelson's office hours will follow section until 5:00pm on Friday, either in 2129 Girvetz (if possible) or in the PSC. Joel Varley's office hours will take place in the Physics Study Room (1019 Broida) on Monday from 2:00pm to 3:00pm, Thursday from 3:30pm to 4:30pm, and Friday noon-1:00pm.

The text for the course is 'An Introduction to Mechanics' by Kleppner and Kolenkow. (K&K). This is a hard textbook, but rewarding. Our plan is to cover material from Chapters 6, 7, and 9-14. I hope to start material on fluids and statistical mechanics at the end of the quarter; I will hand out material from other textbooks at that time.

Working problems is crucial to the understanding of physics. Expect to spend at least 12 hours a week outside of class studying and working problems.

Please make your work neat, clear, and easy to follow. It is hard to grade sloppy work accurately. Generally, make a clear diagram, and label quantities. Derive symbolic answers, and then plug in numbers after a symbolic answer is available.

These problems pertain to the second week of lectures, and the corresponding reading is pp. 248-274 of K&K.

1. K&K Problem 6.3.
 2. K&K Problem 6.6.
 3. K&K Problem 6.8.
 4. K&K Problem 6.16.
 5. K&K Problem 6.26.
 6. K&K Problem 6.27.
 7. K&K Problem 6.28.
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