

Physics 251

University Physics I: Classical Mechanics

Class Number: 7680

Meeting Times: MTuWF 11:00 – 11:50am

Meeting Place: Ag and Biosys 223

Midterms: Fri Feb. 9 and Wed. Mar. 7

Final Exam: Tues. May 8, 1:00 – 3:00pm

North Dakota State University

Spring 2007

Instructor: Dr. Terry Pilling

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Description: Physics 251 is a detailed introduction of calculus based classical mechanics. The 4 credit course for engineering/science students requires an understanding of Math 165 (prereq/coreq). There are four lectures each week with a pace which covers more than a chapter per week. Students must have a scientific calculator for use on tests.

Course Objectives: Students completing Physics 251 should be able to solve mechanics problems using Newton's laws of motion, conservation laws, static equilibrium, fluid dynamics, thermodynamics and kinetic theory.

Text: Chapters 1 through 20 of *Fundamentals of Physics* by Halliday, Resnick, & Walker, 7th Edition, Wiley (2004).

Lectures: Meet at 11:00 – 11:50 MTuWF in ABEN 223.

Assignments: The homework assignments can be found on the LON CAPA system. The homework sets are due on the date specified and late homework will not be accepted. You are required to record your receipt number in case of an error or dispute in grade recording. The LON CAPA homework problems are the minimum number of problems that you should work out and ideally you will solve many more problems from the chapter end problems on your own until you are very comfortable and familiar with the material. The best way to learn physics is to do as many different types of problems as you can.

Extra Help: If you find you would like some extra help I recommend that you make use of the tutor room. This is located on the 3rd floor in South Engineering. A schedule of the tutor availability will be posted. In addition there are Super Tutors. The Super Tutor schedule for various courses can be found at

http://www.ndsu.edu/student_success/super_tutor/schedule.shtml

Exams: During the semester, two one-hour exams will be given, and at the end of the semester there will be a comprehensive final exam. The in class exams will be given on Friday Feb. 9 and on Wednesday Mar. 7. The final exam will be given on Tuesday May. 8 from 1:00pm to 3:00pm. All exam will be held in the usual classroom. You now have the exam schedule. Do not schedule any other activities during these times as there will be no makeup exams.

Office Hours: If you are having difficulty with LON CAPA problems or problems from the text you should first visit the tutor room on the third floor of South Engineering. We employ these tutors specifically to help you with your physics problems so I encourage you to use them. If you have other concerns I will be in my office each day after class or you can schedule (by email or phone) an appointment.

Grades: Your final grade in physics 251 will be determined on the following basis:

Exams		Letter Grading
Homework	30%	89.5 to 100% = A
Exam I	20%	79.5 to 89.4% = B
Exam II	20%	69.5 to 79.4% = C
Final Exam	30%	59.5 to 69.4% = D

Depending on the class average, curving may be applied to grades.

Special Considerations: Students with disabilities or other special needs, who need special accommodations in this course, are invited to share these concerns or requests with the instructor as soon as possible. Extra time on exams must be requested by formal letter from the NDSU department of disability services and administered through that department. Students claiming disability without legitimate documentation will not be granted special privileges and advantages over their classmates.

Academic Responsibility: All work in this course must be completed in a manner consistent with NDSU University Senate Policy, section 335: Code of Academic Responsibility and Conduct (<http://www.ndsu.nodak.edu/policy/335.htm>)