

UNIVERSITY OF NEW MEXICO

Physics 161

General Physics II

Winter / Spring Semester, 2006

Time and Place: MWF 10:00 – 10:50 AM, Regener Hall

Textbook: Young and Freedman, University Physics, 11th Edition
(available from the UNM Bookstore)

Other Required Item: Class response keypad
(available from the UNM Bookstore)
Note that the optional study guides are not required for this class
We do not use WebAssign in this class.

Instructor: Robert Duncan, Ph.D.
Professor of Physics, and Associate Dean for Research
College of Arts and Sciences
Dean's Office, Ortega Hall, Room 201
Phone (505) 277-0078; 277-3186
duncan@unm.edu (best way)

Supplemental Instruction Assistant: Mohit Adhikari mohit@unm.edu
Phone : 505-277-2506

SI sessions and office hours will be held in Regener Hall, Room 114 except for Friday, when they will be held in Regener Hall, Room 111. The hours are:

Monday, Wednesday and Thursday 7:00-8:00 P.M. and Friday 12:00-1:00 PM.

All students are expected to be on-time and to sign-in at the start of the SI session. Up to 10% extra credit may be obtained by attending one SI section each week of the term, but the total extra credit available from this and the challenge problems is limited to no more than 10%. Mr. Adhikari will also hold general office hours at the following times:

Monday, Wednesday and Thursday 8:00-9:00 P.M. and Friday 1:00-2:00 P.M., or by appointment. You may come to these office hours at any time. No SI extra credit is awarded for office hour attendance.

Teaching Assistant / Grader: Chang-Yi Lin cylin@unm.edu
Office Hour Wednesday, 1:30 – 2:30 , Regener
Hall, Room 111.

We will work in sequence through the textbook, completing one chapter each week, with the exception of the first and last weeks of the course. We will combine Chapters 15 and 16 during the first week, with primary emphasis on Chapter 15 and only a few select applications from Chapter 16. The last week of the class will be dedicated to a comprehensive review. There will be two in-class midterm examinations, and a final examination during finals week on May 8, 2006 from 10:00 – 12:00, per the Registrar's published schedule of finals.

Homework will be assigned each Wednesday and due at the start of class on Friday of the following week. We will start a new chapter each Monday, and each new chapter builds on all the preceding chapters, so it is critical that you keep up with the class.

Class grading is strictly objective, and will be determined as follows:

10% on in-class quizzes (usually unannounced)

20% on the solutions of the homework exercises

20% on each of the two midterm examination scores

30% on the final examination score

Up to 10% extra credit may be earned by solving challenge problems, and by attending the supplemental instruction sessions.

Grading is approximately as follows, but never stricter than this:

99-100: A+	94-98: A	90-94: A-	85-89: B+
80-84: B	75-79: B-	70-74: C+	65-69: C
60-64: C-	55-59: D+	50-54: D	45-49: D-

All students are strongly encouraged to attend the Supplemental Instruction Classes, and to enroll in Physics 168-001, which meets on Mondays from 11 – 11:50. Professor Duncan will hold office hours in Regener Hall, Room 111, on WF from 11 – 11:50 AM.

Be sure to register your ‘clicker’ on CPS. For this procedure, go to:

<http://www4.unm.edu/physics/help/students/>

You will need to enter your class key, which is **N16971A862**. If you need help, contact:

Cathy Webster

Regener Room 111

Phone: 277-5812 (Regener, during office hours)

E-mail: webster@unm.edu

Office Hours: MW: 2:00 - 5:00

TuF: 8:30 - 11:30

Th 11:30 - 2:30

These office hours apply for the first four weeks of the term only.

BE SURE AND REGISTER UNDER UNIVERSITY OF NEW MEXICO, and not University of New Mexico – Albuquerque or University of New Mexico - Valencia. If you register under these incorrect destinations, then you will need to call 888-333-7532 or go onto the e-Instruction web site chat room and get them to cancel your current registration so that you can register under University of New Mexico. Also, be sure to use the code in your clicker box to register your clicker for free if your clicker is new. Otherwise, register your old clicker and pay the registration fee on-line.

Instruction Schedule

Jan. 18	Mechanical Waves and Sound (Ch. 15 & 16 combined)
Jan. 20	
Jan. 23	
Jan. 25	Temperature and Heat (Ch. 17)
Jan. 27	
Jan. 30	
Feb. 1	Thermal Properties of Matter (Ch. 18)
Feb. 3	
Feb. 6	
Feb. 8	First Law of Thermodynamics (Ch. 19)
Feb. 10	
Feb. 13	
Feb. 15	Second Law of Thermodynamics (Ch. 20)
Feb. 17	
Feb. 20	
Feb. 22	Exam, Chapters 15 - 20
Feb. 24	Electric Charge and Electric Field (Ch. 21)
Feb. 27	
Mar. 1	Gauss's Law (Ch. 22)
Mar. 3	
Mar. 6	
Mar. 8	Electric Potential (Ch. 23)
Mar. 10	
Mar. 20	
Mar. 22	Capacitance and Dielectrics (Ch. 24)
Mar. 24	
Mar. 27	
Mar. 29	Current, Resistance, and EMF (Ch. 25)
Mar. 31	
Apr. 3	
Apr. 5	Exam, Chapters 21 - 25
Apr. 7	Direct Current Circuits (Ch. 26)
Apr. 10	
Apr. 12	Magnetic Fields and Forces (Ch. 27)
Apr. 14	
Apr. 17	
Apr. 19	Sources of Magnetic Field (Ch. 28)
Apr. 21	
Apr. 24	
Apr. 26	Electromagnetic Induction (Ch. 29)
Apr. 28	
May 1	Comprehensive review of the class, Ch. 15 - 20
May 3	- Ch. 21 - 25
May 5	- Ch. 26 - 29

May 8 Final Exam, Monday, 10 AM - Noon

Recommendations for optimal study habits:

- Study the material in Young and Freedman before it is covered in class
- Work through the examples in the text before class
- Come to class with the confusing items noted
- If not resolved in lecture, come to an office hour or supplemental instruction session.
- Start the homework problem set on Wednesday, and try to complete it by Friday.
- Come to Physics 168 on Monday with questions about the hard problems, and turn in the problem set in class on Wednesday. No late problem sets will be accepted, so turn in what you have done by class time. Your lowest problem set score will be dropped.
- Problem set solutions will be available on-line on Wednesday night. Get the solutions and use them as a guide to work through the problems that confuse you. If the solutions are not adequate, then come to Physics 168, and office hour, or a supplemental instruction session and ask about it.
- Keep repeating this process every week, and don't stop trying until you really understand. Don't try to fake it. You are responsible for your own education, so keep pushing until you really understand.
- Review of the materials before an exam will be easy if you made sure that you understand the material while we cover it in class.
- Work collaboratively on the problem sets – Form study groups with other class mates, and learn from each other. But be sure you understand all of the problems in the end, since you will take the exams completely alone.