

**DePaul University
Department of Physics**

Syllabus

General Physics

Summer, 2009

(Physics 150 - 151 - 152 & Physics 155 - 156)

Introduction:

This sequence of courses covers standard, non-calculus, physics. It normally fulfills the physics requirement for students in major programs other than physics, chemistry and engineering. Students may register for all or part of the sequence in either of two ways: Physics 150-151-152 (4 quarter hours each); or Physics 155-156 (6 quarter hours each). **DePaul students must register for Physics 150-151-152.** Six quarter hours is equivalent to 4 semester hours. The purpose of the sequence is to familiarize the student with the concepts and methods of theoretical and experimental physics. This requires extensive attention to problem-solving and to laboratory techniques.

Course Organization:

Three faculty members will share the responsibility for instruction:

Fr. J. W. Milton (Physics 150, 155 part 1)

Mr. James Scheidhauer (Physics 151, 155 part 2, 156 part 1)

Ms. Gabi Mihalcea (Physics 152, 156 part 2)

The *text* is:

College Physics, (8th edition) Serway & Vuille, Brooks./Cole

Useful but not required: **Student Solutions Manual, Vol 1 and Vol 2**. (Available in the University book store.)

Physics 150-151-152 Laboratory Manual, (11th edition) Milton & Mihalcea, DePaul.

Also required: iClicker (Available in the Book store) If you already have an iClicker, it may be used in this course.

The tentative *contents* of the various parts of the sequence are:

Physics 150: Chapters. 1 - 9 (June 15-July 7)

Physics 151: Chapters 10 - 14 and 22 - 25 (July 8-July 30)

Physics 152: Chapters 15 - 21 and 26-30 (August 1-22)

Physics 155: Chapters 1 - 14 (June 15 –July 17)

Physics 156: Chapters 15-30, but not in order (July 20-August 21)

Each third of the sequence will include about six lab sessions, each half will include 9-10 sessions. Please note that it is difficult in an accelerated sequence to schedule make-up labs.

These courses will meet every weekday, except July 3, from June 15 to August 21, from 8:30 am to 12:50 pm. The distribution of this time may vary from day to day. Two hours will be devoted to lecture and about two hours to laboratory work; the discussion/problem review sessions will run for one hour (10:50-11:50). **Students should expect to be present each day for the entire time.** Students who follow the entire sequence will take six major tests. Dates for these tests will be provided by each instructor. Short tests (quizzes) will also be given on a periodic basis.

Expectations on Students:

Homework will be assigned but may not be collected. The purpose of homework is to prepare students for classroom discussions and for the problem sessions. It is almost axiomatic that the successful student will spend two hours each day for each lecture hour in reading and problem solving. When coupled with laboratory, this means that the student must commit about eight hours per day to this accelerated, intensive experience. In the past, most grade disappointments have occurred because students failed to heed this rule. Problem solving ability improves only through practice, not merely by memorizing.

Students must take major and short tests on days assigned and complete scheduled laboratory exercises -- including lab reports.

Laboratory reports will consist basically of the tear-out laboratory sheets from the laboratory manual, with graphs or drawings added where appropriate.

Lab reports for a given lab are due at the beginning of the next scheduled lab session. Late reports are subject to penalty. Copying lab reports is regarded as plagiarism and may result in a grade of "F" for the course.

University Policy: Plagiarism is a major form of academic dishonesty involving the presentation of another's work as one's own. Like other forms of academic dishonesty, plagiarism is always a serious matter. If an instructor finds that a student has plagiarized, the appropriate penalty is at the instructor's discretion. Initial sanctions may include lowering a grade, failing the course or refusing to accept a work product. Actions taken by the instructor do not preclude the College or University taking further punitive action including dismissal from the University.

For further information about the University policies on academic integrity, please consult the Student Handbook.

Evaluation:

Evaluation is based on laboratory work (performance in the lab and lab reports), quizzes and tests. Each faculty member will inform you of his or her grade scale and the relationship he or she uses to transform numerical grades to letter grades. The meaning of the latter at DePaul University is defined in the University Bulletin.

Tests and Quizzes for Physics 150, 151, 151:

There are one to three quizzes, a mid-term examination and a final examination for each of these courses. See the course calendars for individual courses for details.

Tests and Quizzes for Physics 155 and 156:

The mid-term examinations for Physics 150 and 151, and the final examination for Physics 150 are regarded as three major tests for Physics 155. Two-thirds of the student's grade is based on performance in the material of Physics 150, one-third on performance in the material of the first half of Physics 151.

The final examination for Physics 151 and the mid-term and final examinations for Physics 152 are regarded as three major tests for Physics 156. One-third of the student's grade is based on performance in the material of the second half of Physics 151, two-thirds on performance in the material of Physics 152.

Individual instructors' course calendars provide further information.

Lecture Halls and Laboratories: Daily class lectures (8:30-10:40 am) and discussion/problem review sessions (10:50 am - 11:50 pm) will be held in Byrne Hall, 2219 N. Kenmore, Room 202. Laboratory sessions will be in rooms 208 and 209. Faculty offices are in Byrne Hall, and each faculty member will inform you of his/her availability. Since we all have other responsibilities, it is recommended that you consult us by appointment. A request made in the morning lecture will generally be honored in the afternoon of the same day.