

# Physics I (29:27) Fall 2007

MWF 11:30-12:20 70 VAN

[www.physics.uiowa.edu/~cpryor/027f2007](http://www.physics.uiowa.edu/~cpryor/027f2007)

## Instructor

Craig Pryor  
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319-335-0099  
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## Office Hours

Monday 2:30-3:30  
Wednesday 1:30-2:30,  
Thursday 1:00-2:00  
or by appointment

**Course description** Course Fee: \$ 25.00 The emphasis in this course is on the rigorous structure of classical physics and the development of the ability to solve problems. Topics include Newtonian mechanics for point particles and rigid bodies, and conservation laws. This course is part of a four-semester sequence (29:27-30) intended primarily for physics and astronomy majors. The three weekly lectures and discussion section are given by a professor, and the weekly lab is conducted by a TA.

**Goals and objectives** Physics I is the first semester of a four semester course sequence introducing all of physics to departmental majors. In the junior and senior years, students take separate courses for each of the topics introduced in the first two years. About half of the students in Physics I will already have some exposure to calculus in high school, while the other half will take Calculus I concurrently. Required calculus will be developed in the physics class as part of the lecture so that students new to calculus have the required mathematical tools. Problem solving will be emphasized, with a clear exposition of the student's work one of the goals.

**Text** *University Physics with Modern Physics* by Young and Freedman, 12th edition

**Lab manual** Experiments in Mechanics, Wave Motion and Heat (available at the University book store).

**Pre-requisites** majors or special permission for enrollment

**Co-requisites** 22M:025 or 22M:035 or 22M:045

**Course format** The course meets three times weekly for lectures, once per week for a discussion/problem solving session and once per week for a laboratory session.

**Homework** Assigned every Friday and the following Friday. Solutions will be available on reserve in the Physics Library, third floor VAN, and electronically on the course web page [www.physics.uiowa.edu/~cpryor/027f2007](http://www.physics.uiowa.edu/~cpryor/027f2007)

**Amount of work expected** The college guideline is that one semester hour of credit is the equivalent of approximately three hours of work (class time plus out of class preparation) each week over the course of a whole semester.

**Grading** homework: 30%, lab reports: 25%, 2 midterms and 1 final: 15% each  
midterm 1: Monday, October 1      midterm 2: Monday, November 5

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## Department of Physics and Astronomy Main Office

203 Van Allen Hall

319-335-1686

Chair -- Professor Thomas F. Boggess at [thomas-boggess@uiowa.edu](mailto:thomas-boggess@uiowa.edu)

## Course Policies

**Make-up exams** If you are unable to attend an exam for a legitimate reason, I should be notified in advance of the exam time in order for a make-up exam to be offered.

**Attendance policy** Attendance is not required for the lecture or discussion section, but it is recommended. Attendance is required for the laboratory, although one lab score will be dropped from the final total (the lowest score). This is partly to avoid make-up laboratories.

**Plagiarism and cheating** Plagiarism and cheating are not tolerated. Plagiarism includes but is not limited to copying line for line solutions to assigned problems from other students or from other sources (such as those found online). A student suspected of plagiarism or cheating must be informed in writing as soon as possible after the incident has been observed or discovered. Instructors who detect cheating or plagiarism may decide, in consultation with the departmental executive officer, to reduce the student's grade on the assignment or the course, even to assign an F. The instructor writes an account of the chronology of the plagiarism or cheating incident for the DEO, who sends an endorsement of the written report of the case to the Associate Dean for Academic Programs, CLAS. A copy of the report will be sent to the student. The detailed policy is printed in the Schedule of Courses and the College's Student Academic Handbook.

**Complaints** A student who has a complaint related to a Physics or Astronomy course should follow the procedures summarized below. The full policy on student complaints is on-line in the College's Student Academic Handbook <http://www.clas.uiowa.edu/faculty/handbook/5/f.shtml>. Ordinarily, the student should attempt to resolve the matter with the instructor first. If the complaint is not resolved to the student's satisfaction, the student should go to the course supervisor (if the instructor is a teaching assistant) or to the Departmental Chairman, Professor Thomas Boggess (335-1686). If the matter remains unresolved, the student may submit a written complaint to the Associate Dean for Academic Programs, 120 Schaeffer Hall (335-2633). The associate dean will attempt to resolve the complaint and, if necessary, may convene a special committee to recommend appropriate action. In any event, the associate dean will respond to the student in writing regarding the disposition of the complaint. For any complaint that cannot be resolved through the mechanisms described above, please refer to the College's Student Academic Handbook for further information.

**Policy governing undergraduate and professional students enrolled in courses outside their own college or degree program.** This course is given by the College of Liberal Arts and Sciences. This means that class policies on matters such as requirements, grading, and sanctions for academic dishonesty are governed by the College of Liberal Arts and Sciences. Students wishing to add or drop this course after the official deadline must receive the approval of the Dean of the College of Liberal Arts and Sciences. Details of the University policy of cross enrollments may be found at: <http://www.uiowa.edu/~provost/deos/crossenroll.doc>.

**Procedures for student complaints** A student who has a complaint related to a Physics or Astronomy course should follow the procedures summarized below. The full policy on student complaints is on-line in the College's Student Academic Handbook [http://www.clas.uiowa.edu/students/academic\\_handbook/ix.shtml#4](http://www.clas.uiowa.edu/students/academic_handbook/ix.shtml#4). Ordinarily, the student should attempt to resolve the matter with the instructor first. If the complaint is not resolved

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to the student's satisfaction, the student should go to the course supervisor (if the instructor is a teaching assistant) or to Associate Chair, Professor Craig Kletzing. If the matter remains unresolved, the student may submit a written complaint to the Associate Dean for Academic Programs, 120 Schaeffer Hall (335-2633). The associate dean will attempt to resolve the complaint and, if necessary, may convene a special committee to recommend appropriate action. In any event, the associate dean will respond to the student in writing regarding the disposition of the complaint. For any complaint that cannot be resolved through the mechanisms described above, please refer to the College's Student Academic Handbook for further information.

**Plagiarism and cheating** A student suspected of plagiarism or cheating must inform the student in writing as soon as possible after the incident has been observed or discovered. Instructors who detect cheating or plagiarism may decide, in consultation with the departmental executive officer, to reduce the student's grade on the assignment or the course, even to assign an F. The instructor writes an account of the chronology of the plagiarism or cheating incident for the DEO (Associate Chair), who sends an endorsement of the written report of the case to the Associate Dean for Academic Programs, CLAS. A copy of the report will be sent to the student. A detailed policy is printed in the Schedule of Courses and the College's Student Academic Handbook.

**Student rights and responsibilities** All students in the College have specific rights and responsibilities. You have the right to adjudication of any complaints you have about classroom activities or instructor actions. Information on these procedures is available in the Schedule of Courses and on-line in the College's Student Academic Handbook ([http://www.clas.uiowa.edu/students/academic\\_handbook/](http://www.clas.uiowa.edu/students/academic_handbook/)). You also have the right to expect a classroom environment that enables you to learn, including modifications if you have a disability. Your responsibilities to this class-and to your education as a whole-include attendance and participation. You are also expected to be honest and honorable in your fulfillment of assignments and in test-taking situations (the College's policy on plagiarism and cheating is on-line in the College's Student Academic Handbook [http://www.clas.uiowa.edu/students/academic\\_handbook/](http://www.clas.uiowa.edu/students/academic_handbook/)). You have a responsibility to the rest of the class-and to the instructor-to help create a classroom environment where all may learn. At the most basic level, this means that you will respect the other members of the class and the instructor, and treat them with the courtesy you hope to receive in turn.

- Changes in course registration including adding, dropping, and changes in sections, will be made by office personnel in Room 203 VAN between the hours of 8-12 and 1-5 Mon-Fri. If you are taking this course as a second grade option, your instructor needs to be notified.
- Teaching Assistants will be available for free tutoring in room 54 VAN during the hours posted. Students are permitted to seek help from classmates in preparing their homework. While you are encouraged to seek help from TA's, do not expect them to do your homework for you.

### Availability of Modifications

I would like to hear from anyone who has a disability, which may require some modification of seating, testing, or other class requirements so that appropriate arrangements may be made. Please contact me during my office hours. Students with disabilities should also contact the Office of Student Disabilities Services (335-1462).