

**PHY 121 - University Physics I: Mechanics
SPRING 2011**

Instructor: Igor A. Shovkovy

Days: Monday, Wednesday, Friday

Time: 10:45 a.m. – 11:35 a.m.

Location: Santan Hall 135
(Poly – SANTN135)

Day: Wednesday

RECITATION:

Time: 12:55 p.m. – 1:45 p.m.

Location: Santan Hall 135
(Poly – SANTN135)

[Blackboard](#)



[MasteringPhysics](#)

My **office** is Wanner Hall **340J** (Polytechnic campus)

My office **telephone** number is **480-727-1953**

My **e-mail** address is Igor.Shovkovy@asu.edu

Office hours: Mon, Wed 9:00 – 10:00 a.m., and by appointment.

Course description: This course is about the fundamental laws of physics that focuses on mechanics. Key topics to be covered in the course are kinematics (the description of motion) and dynamics (the relation of motion to force and mass), Newton's laws, work, energy, momentum, conservation laws.

Prerequisites: MAT-265 (Calculus for Engineers I), MAT-270 (Calculus with Analytic Geometry I), or MAT 290 (Calculus I). Students will need to be able to apply algebra, trigonometry, and elementary differential and integral calculus to solve physics problems.



Textbook: *University Physics* (12th edition) by **H. D. Young and R. A. Freedman**

You may use either the expanded edition or Volume 1 only. Homework reading assignments are keyed to this textbook. At the bookstore, the textbook should come packaged with a [Mastering Physics](#) access kit. [Mastering Physics](#) is required. If you buy a used textbook, then you must buy Mastering Physics separately at the bookstore or online at the [Mastering Physics web site](#).

General policy: Class attendance is required. An extra credit (up to a maximum of 3%) may be earned for the attendance. Students are responsible for all material presented in class, all homework, and for all changes to the schedule or plans announced in class. Minimal preparation for lecture is to do the reading assignment for that day. Reading assignments for each class is given in the [SCHEDULE of Lectures, Exams, and Homework assignments](#) on the Blackboard course web site.

Electronic devices. The use of cell phones, pagers, personal digital assistants (PDAs), iPods, iPads, laptops, and other similar electronic devices is **not** permitted during exams and quizzes.

Grading policy:

Homework	30%
Midterm tests	50%
Final exam	20%
TOTAL	100%

The grades will be determined as follows:

E (<50 %), **D** (50-62 %), **C** (62-75 %), **B** (75-88 %), **A** (88-100 %)

Recitations. Attendance at the recitations is mandatory. During the recitation sessions you will be able to ask questions and to develop critical problem solving skills. Also, I will give tips on problem solving and discuss physics issues brought up by the lectures and the homework assignments.

Homework. Homework is one of the most important components in this course. This is because doing homework is the only way to really learn the material and build a good intuition for physics. Solving physics problems effectively is a skill that students must develop. The only known way to achieve this is by practicing. The lectures will only cover the key concepts. The text will elaborate on these concepts and provide further explanation of their meaning and on how one uses them to solve problems. There is no way to do well in this course if you do not give the homework assignments the effort they require.

Your homework assignments are to be completed using [Mastering Physics](#) (MP). (For tips using Mastering Physics see the notes in the [SCHEDULE](#) file on the Blackboard course web site.) You may expect approximately 12 Mastering Physics HW assignments per semester. You can only find the Mastering Physics problems at [masteringphysics.com](#). The due dates for all Mastering Physics assignments will be posted on your Mastering Physics assignment list.

Midterm exams. There will be four midterm tests on the dates shown below in the tentative schedule (see also the [SCHEDULE of Lectures, Exams, and Homework assignments](#) on the Blackboard course web site). Textbooks and notes will **not** be permitted during the exams.

Final Exam. A **comprehensive** final exam is scheduled during the final exam week (May 5 - 11, 2011) by the University. For details see the [final exam schedule](#). No changes may be made in this schedule without prior approval of the Dean of the college. Textbooks and notes will **not** be permitted during the final exam.

Tentative schedule

The exact schedule for lectures and tests will depend on how long it takes to cover the material. The following is my best guess.

Dates

January 19	First class
February 11	Test #1
March 9	Test #2
March 13-20	Spring Break
April 4	Test #3
April 27	Test #4
May 2	Last class

FINAL EXAM: Check the ASU [final exam schedule](#) for the date and time

Selected course materials, handouts, and grades can be obtained from [myASUcourses](#). The course name at [myASUcourses](#) is **PHY 121: Univ Physics I: Mechanics (2011 Spring)**.

The identification code for our class at [MasteringPhysics](#) is **MPSHOVKOVY2011SPRING**

For student rights and responsibilities see the ASU web page: <http://campus.asu.edu/downtown/rights-and-responsibilities>

ADA policy: ASU provides equal opportunity to qualified employees and students, and to members of the general public who have a disability and provides reasonable accommodation as appropriate in employment, the application for employment, services, programs, and activities. Individuals with a disability are those who have a physical or mental impairment that substantially limits one or more major life activity, have a record of such impairment, or are regarded as having such impairment. ADA coordinator must be contacted for assistance in all matters pertaining to compliance with this policy. The Disability Resource Center contact numbers are 480-965-1234 (Voice), 480-965-9000 (TTY).

Last modified January 14, 2011