

# Welcome to Physics 160

Course webpage is at: [http://panda.unm.edu/Courses/Fields/Phys160/Phys160\\_SP09.html](http://panda.unm.edu/Courses/Fields/Phys160/Phys160_SP09.html)

Here are some items to help you succeed in this class and to register for CPS and Mastering Physics.

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**Warning!** This is probably the most difficult course you have ever taken and may be the most difficult course you ever take in your life. Take this as a challenge! Here are some of the things that you must do to succeed:

- (1) There will be online homework due at the beginning of every class, and a written assignment due after we cover each chapter. These will require you to spend **at least** 10 hours outside of class per week to succeed.
- (2) Physics is difficult for most folks (including me) to learn. It generally will not come to you through [osmosis](#).
- (3) An introductory physics course such as this must cover many topics. The material will come at you fast and we must hit the ground running on the first day of class.
- (4) The folks who want you to take this course desire an emphasis on problem solving. Problem solving is uniquely difficult for most students because memorization and other methods that have worked well for you in previous courses will not work well here. It is a unique experience; not like math or any other course you have taken. It can be frustrating to develop the required skills. You will need lots of practice. So you will have a lot of homework.
- (5) We will use a lot of math in our problem solving since math is the language of physics. The math must be second nature to you, if you have to think too long and hard about the math you won't have time for the physics; you certainly will not have time to finish the tests. I don't know how to use a complicated calculator and I don't recommend you use one unless you know it well. My simple calculator cost less than \$10. Make sure your calculator can handle the elementary trig functions.
- (6) Since we must cover the material quickly, you must be very organized, follow instructions very carefully, complete all activities ahead of schedule, and attend, on time, each and every class. We are using an online homework system. It is likely that there will be computer and server problems so you must stay ahead in your work to avoid these potential difficulties. You must also stay ahead so you have time to get help when you get stuck.

**Lots of hard work** and a **very high level of personal responsibility** are required for success. Many students don't succeed because of things that have nothing to do with physics. I have very little patience for these students. Examples: failure to attend each and every class, failure to carefully follow directions, failure to work ahead of schedule on the reading, studying and homework, failure to spend adequate time on the course (probably a minimum of 10 hours per week outside of class). Some students simply do not want to follow instructions. And many students get into difficulty because they don't take care to listen and read carefully so it is hard for them to follow instructions. In all of these examples, success in the course is more a matter of attitude and choice than talent. If I'm talking about you, I urge you to drop the course now. Unfortunately, some students will not succeed because of poor math ability and/or other academic issues. If, as the course gets underway, you sense that you may be in this category I urge you to drop the class right away. If the early concepts and homework seem way too difficult, perhaps you are in this category. If the first test seems impossibly long and difficult then you are probably in this category. Do not hang around hoping for a miracle. There is a second eight week course (Physics 110) that is designed so that if you feel that you need to drop this course, you can pick that up, improve some skills and not drop below the required semester hours you need. You will get more from this course than from trying to eke out a C in this course, and will be better prepared for the next time you take 160.

**Keypads:** We are using keypads (also known as CPS or iClickers). Cost to students is an important consideration and we think the learning payoff to you is worth the cost. You must purchase from the bookstore and register a keypad before class Thursday, Aug. 28 and bring it to class. Go to [http://panda.unm.edu/Courses/StudentHelp/iclick\\_howto.html](http://panda.unm.edu/Courses/StudentHelp/iclick_howto.html) and read iClickers frequently asked questions and then go to the registration instructions. When you register your keypad, be sure to provide your name (even though the registration Website treats your name as an optional field). Pay careful attention to distinguish between the number one and the letter L and between the number zero and the letter O. We will use your **Banner ID** as your course **Student ID**.

### **Mastering Physics (MP):**

Mastering Physics is the online homework system. Your new book came with a MP package (no extra cost to you). If you have a used book you need to buy the Mastering Physics package from the bookstore or you can go on line with a credit card and buy it. To buy access online, go to [www.masteringphysics.com](http://www.masteringphysics.com) then click on the title of your textbook. Then click Buy Now and follow instructions.

Whether your MP package came with the text or whether you bought access from the bookstore or online, everyone must register on line and complete the first MP assignment and start becoming familiar with MP before class on Friday.

You can register simply by following the instructions available online at [www.masteringphysics.com](http://www.masteringphysics.com). **Important notes for registering:** The UNM Zip code is 87131. Our **Course ID** is PHYS160SP0901. (Note: there may be some confusion about zeros and the letter O in our **Course ID**: all of the above are zeros. **Student ID:** We will use your **Banner ID** as your course Student ID. **Student Access Code:** This is a six-"word" printed code supplied beneath the pull-tab inside your Mastering Physics Student Access Kit. It is valid for registering one student. If the tab in this kit has been pulled back, the code may no longer be valid. If you buy a secondhand textbook, any code supplied with it is probably not valid. In either case, you can purchase a Student Access Code online using a credit card or you can go to the bookstore and buy a mastering physics package. If you need help then click on the "?" icon. There are more detailed Mastering Physics registration instructions on the class website (see below).

The real syllabus along with homework assignments can be found as follows: Go on the Web to <http://panda.unm.edu/> Select "Classes" and then "Class Homepages". Then select this course and read the full syllabus. As part of your first homework assignment due Wednesday morning before class, read the full syllabus and homework section of the class website.

### **Problems Sessions:**

There will be four different problems sessions for you to attend, with two different grading options. There is one session that you can register for a credit/no credit grade, which I will teach. In addition we have a Special Instructor, ???, who will teach three other sections. You can attend any of these sections for credit (i.e. sign up for my section and attend one of Mark's), or just attend with no credit.

### **Physics Lab:**

I encourage all of you to also sign up for Physics Lab. This will help you to get a hands-on experience with Physics.

**I hope you do well in this course.**

Douglas Fields