Success in a Physics Class

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Welcome to College Physics. I thought it might be a good idea to write down a few ideas that I have to help you succeed in the course. To begin with, please t ink of me as your "physics coach". I am here to teach you concepts, answer questions, and get you through the course. Your job is to study the material, do the homework and ask me specific questions on things you don't understand. So here are a few ways to make physics a pleasant experience:

1. Realize that all technology is based upon the laws of physics. Understanding these laws will greatly help you in your tech courses.
2. College physics uses math (algebra & trigonometry) as its language. We review some basic math skills at the beginning of the course, but you will need to spend time reviewing on your own.
3. All exams require solutions of problems using problem solving techniques, mathematical manipulation of equations and the use of a basic scientific calculator.
4. All tests are timed and student seating is arranged to minimize accidental viewing of your neighbor's test.

With this as a backdrop, you probably are asking, "where are the helpful hints?" OK here they are:

1. If you have a fancy calculator that you cannot use, don't use it for physics! Get yourself a basic TI scientific calculator that you can work. Realize that ALL of your grades will come from answers to problems worked out on your calculator.
2. Bring your calculator, book, notebook and pen to class every day. They are your "college tools".
3. Take careful notes in class - if they aren't neat rewrite them later.
4. Ever hear the old joke of the person who asks someone directions "How do you get to Carnegie Hall?" and the answer is "practice, practice, practice". Get it? The same is true in physics. You will only do well with a great deal of practice. Each week, allocate at least 6 hours over 7 days to do physics. Read the chapter, study the laws introduced, study the sample problems, and then start DOING the homework. By DOING I mean writing down what was GIVEN, ASKED FOR, IMPLIED, EQUATIONS & SOLUTION (with units). If you can't solve in 15 minutes, go on to the next problem.
5. Getting stuck on a problem is NO BIG DEAL. Just come into class or my office, or call me, and within 5 minutes I will show you how to do it. Unfortunately, some folks get stuck on a problem and spend huge amounts of time trying to solve it, or get frustrated and throw in the towel, without doing much physics. Understand this: ALL PEOPLE GET STUCK ON PHYSICS PROBLEMS. ALL! It's how you deal with it that determines your success.
6. Work with one or more students in class as a "study group". Meet once or twice a week in the library at a set time and go over the problems. Exchange phone numbers so if you miss class there are no surprises.
7. NEVER CRAM FOR A PHYSICS TEST! When you take a test, read all of the problems, mark the easy ones, and do those first. While you are doing the easy problems your subconscious is working on the tougher ones. Since partial credit is given for solutions, try to solve all problems, write something down! Nothing gets nothing. Since tests are broken down by chapters, concepts & laws, it usually is not too difficult to write down something.
8. Some of you haven't read a book in years, let alone a physics book. Well guess what, most college courses use books as their basis, and the books are fairly sophisticated. So if you want to succeed you will need to learn how to read a book at a fairly good pace and take notes on the major concepts. Get familiar with how the book is laid out and its student's aids (chapter summary, CD with problems).
9. The course only takes 15 weeks and then you get a grade. Think how happy we both will be with you getting a great physics grade!
10. I cannot overemphasize the need for you to regular study, do homework, and participate in class and lab. In the end, those students who work hard, get rewarded.