

## Goals of 'Physics for the Sciences'

1. We want to help you be successful in this course and prepared for your future career.
2. We want to help you understand some fundamental ideas of physics. This includes
  - a) reconciling your every day experiences with the material learned in the course;
  - b) making sure that new ideas make sense;
  - c) connecting what you learned in class today to what you learned yesterday;
  - d) linking concepts and apply ideas instead of memorizing facts;
  - e) using and coordinating a variety of representations (linguistic, mathematical, pictorial and graphical) to connect abstract ideas to concrete ideas, and
  - f) communicating ideas to each other and to the instructors.
3. We want to help you learn the processes and tools of science. This includes
  - a) becoming familiar with how physics develops - where decisions are made on the basis of evidence and conjecture, as opposed to a collection of true ideas/unchanging facts that scientists somehow devise;
  - b) learning to evaluate ideas and information using evidence and scientific strategies to build arguments;
  - c) learning to formulate physics questions, design plans to answer them and be able to conduct investigations;
  - d) learning the art of experimentation.
4. We want to help you learn that physics **IS NOT** about memorizing equations and plugging in numbers to get the right answer. It is about observing, explaining, and representing the physical world. It is about doing not about getting the right numerical answer.

To succeed in the course you will need to do a certain amount of work and hand it in. This will guarantee you a C+ or may be even a B. However, to get a higher grade you need to understand the goals of the course because exams are specifically designed to assess what you learned in light of these specific course goals.