How to Earn Your Best Grade in Physics

Physics

Many students find that physics is one of the first courses in which their grade does not match their expectations when compared to their effort. In other words, students may need to work harder (or at least differently) in order to achieve the grades they are accustomed to. This guide is intended to help students determine what they need to do, how hard they need to work, and what they will need to demonstrate in order to get a particular grade.

Please note that it is likely that all students can earn their desired grades by increasing their effort. However, some students may need to work harder than others, and/or harder than they will choose to work. Effort alone will not raise a student's overall score by more than about one letter grade; students who do well in the class will need to *learn how* to solve physics problems *reliably* and *quickly*.

"A" students will typically:

- Score in the **high-80's** or above (on average) on exams and quizzes.
- Receive **95%** or more of points (on average) on ALL labs, in-class activities, and take-home assignments.
- Complete 95% or more of graded work by the due date.
- To accomplish this, "A" students *may* need to do the following:
    - Sit away from peers during class to avoid distractions
    - Take thorough notes during class
    - Review notes each evening prior to class and do 1-2 review problems from previous lessons
    - Do ALL of the homework problems as they are assigned (don't wait until the weekend!), with the intention of achieving mastery rather than completion:
        - Try every problem and check answers
        - Re-work problems that were incorrect to find mistakes
        - Use the worked-out solutions prior to class in order to analyze tricky problems
        - Ask questions during homework review in class
    - Practice additional problems (level II in the book will be typical of exams and quizzes) on a regular basis
    - Take advantage of lunch, AO, and off-blocks to get extra help
    - Use study guides to assess mastery of the content by:
        - Attempting – and eventually correctly solving – each problem at least once
        - Flagging problems that weren't solved correctly a) the first time and b) reasonably quickly
        - Waiting 1-2 days, then re-attempting problems that need additional practice
    - Achieve mastery of the content at least 2-3 days PRIOR to a test

“B” students will typically:

- Score in the **high-70’s** or above (on average) on exams and quizzes.
- Receive **90%** or more of points (on average) on ALL labs, in-class activities, and take-home assignments (possibly less if test scores are relatively high).
- Complete 80% or more of graded work by the due date.
- “B” students may need to follow some or all of the additional tips above in order to meet these targets.

“C” students will typically:

- Score in the **mid-60’s** or above (on average) on exams and quizzes.
- Receive **90%** or more of points (on average) on ALL labs, in-class activities, and take-home assignments (possibly less if test scores are relatively high).
- Complete 80% or more of graded work by the due date.
- “C” students may need to follow some or all of the additional tips above in order to meet these targets.