PHYS 185
College Physics I
Truman State University - Fall 2000

Meetings:
Lecture (01): Barnett 251, MWF 7:30a- 8:20a
Lab #1 (51): Barnett 150,   F 9:30a-11:20a
Lab #2 (52): Barnett 150,   F 11:30a- 1:20p
Lab #3 (53): Barnett 150,   F 1:30p- 3:20p

Instructor: Rob Salgado
office: Barnett Hall 263
voice: (660)-785-4072
email: rsalgado@truman.edu   ⟵ "the BEST way to reach me"
www: http://www2.truman.edu/~rsalgado/

Office hours: consult the webpage above
or DROP BY MY OFFICE or MAKE AN APPOINTMENT (by email).

Catalog Description: The motion of objects, from particles to planets, is the focus of this course. The revolution in human understanding of mechanics, inspired by Galileo and developed by Newton and others, is the lens through which our modern mechanical world is surveyed. Students will make extensive use of algebra and trigonometry in applying the fundamental laws of classical physics to real-world problems, and will explore the physicists approach to inquiry through laboratory investigations.
[Prerequisite: MATH 186 (Elementary Functions) or equivalent.]

Textbook: Cutnell and Johnson. *Physics: 5th edition. (The 4th edition is acceptable... however, problems will be assigned from the 5th edition.)*

If you are not happy with the textbook, find another one from the library! (I did this for every class I took!)

Electronic Materials: I will maintain a webpage that lists the assigned problems and solutions. Please refer to:

I will post solutions here.

http://www2.truman.edu/~rsalgado/185/

Labs: Lab-sheets will be available only from:

http://www2.truman.edu/~rsalgado/185/labs/

Come to lab on time and ready to go.

Make sure that you have printed out and read the lab before attending your lab section. Although you will work on the lab in groups, each student is to submit a completed lab-sheet. Graphs are expected to be neat and accurate and must be signed and dated. The lab-sheets are due at the start of your next lab.

Use a computer if necessary.

Homework: Homework will be assigned but not be collected. However, I guarantee that at least one of those problems will appear on a quiz or exam. You are encouraged to work on the homework with other students. However, be sure that you can do the problems by yourself since you'll be working by yourself on a quiz or exam. *(The Society of Physics Students ("SPS") offers free tutoring. Watch for their posted announcements.)*

*Most of the learning you do in this class is done by **doing homework problems outside of class!***

Quizzes: (taken during lab) Quizzes will be given at the end of each chapter, based on the assigned homework. They will be announced in advance. Each quiz will be given at the START of the lab-period and will end 15 minutes after the start of the lab-period. NO EXCEPTIONS.

Don't be late.

Exams: (taken during lab) There are THREE one-hour-exams and ONE two-hour final at

7:30a-9:20a THURSDAY, DEC 7

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Each exam will be based on a range of chapters covered in the course. *It may include questions relating to an activity you did in lab.* The final exam will cover the last chapter(s) as well as a "cumulative" part covering all of the other chapters.

Grades:

- 20% Lab
- 15% Quizzes
- 45% 50-min Exams (3 × 15%)
- 20% Final exam

A=87+, B=77+, C=67+, D=57+, F<57.
This class is not graded on a curve.
Borderline cases (between two letter grades): If your exams show an upward trend or you are an active participant in class, you'll be nudged upwards.

Missed exams, quizzes, and labs:

Missed exams may only be made-up with a valid written excuse.
Missed quizzes <u>cannot</u> be made-up. *(Since I will drop the lowest quiz grade, the first missed quiz will be dropped.)*
Missed labs <u>cannot</u> be made-up. *(Since I will drop the lowest lab grade, the first missed lab will be dropped.)*

<div style="font-size:small">Oversleeping is not a valid excuse.</div>

Course outline:

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Sun Mon Tue Wed Thu Fri Sat
          August
    21        23        25        (Ch. 1) Introduction and Mathematical Concepts
    28        30                  (Ch. 2) Kinematics in One Dimension
          September
                         1
   <4>        6         8         (Ch. 3) Kinematics in Two Dimensions
    11        13        15        [FRI] EXAM 1 (on Ch 1, 2 and 3)
    18        20        22        (Ch. 4) Forces and Newton's Laws of Motion
    25        27        29
          October
     2        4         6         (Ch. 5) Dynamics of Uniform Circular Motion
     9        11       <13>       (Ch. 6) Work and Energy
    16        18        20        [FRI] EXAM 2 (on Ch 4 and 5)
    23        25        27        (Ch. 7) Impulse and Momentum
    30
          November
              1         3         (Ch. 10) Simple Harmonic Motion and Elasticity
     6        8        10         [FRI] EXAM 3 (on Ch 6, 7, 10)
    13        15        17        (Ch. 12) Temperature and Heat
   <20>     <22   23  24>
    27        29                  (Ch. 13) The Transfer of Heat, (Ch. 15) Thermodynamics
          December
                         1
     4      <6> [7]     8         [THU] EXAM 4 DEC 7 (7:30a-9:20a)
    11   12]
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