Instructor: Mike Meyer  mrmeyer@mtu.edu  (906) 487-2273
Office Hours: 10:30-11:30 M, W, F or other times by arrangement.  Fisher Hall 221

Materials
Required Text: College Physics: Reasoning and Relationships Volume I, Nicholas J. Giordano  © 2009
High speed internet access to Canvas  (https://mtu.instructure.com/login), WebAssign (www.webassign.net) and an “iclicker” is for in-class use is also required.

Grading Policy
Your grade will be determined by your performance in the following 3 areas:
  Participation (280 points total)
    Prelecture/reading quizzes, in-class assignments and Discussion Board
  Homework (WebAssign – 620 points total)
  Exams (1600 points)  - See details below

Participation (280 pts)
A student’s participation grade is based on 3 things:

1) Pre-lectures (33 lectures, 5 points each, 5 “free” so 140 points total)
Each day we have “class” (Mon, Wed, Fri) you will need to complete a pre-lecture quiz in Canvas (https://mtu.instructure.com/login) by 11:00 AM.  (This could be done anytime after the previous class.)  Pre-lecture quizzes consist of 3 multiple choice questions and one essay question relevant to the reading for that day. Pre-lecture quizzes are worth 5 points each.  A cushion of 20 points (four assignments) is allowed for technical difficulties or other issues that might keep you from submitting a few pre-lecture quizzes on time.

2) Lectures/In Class assignments (33 lectures, 5 points each, 5 “free” – so 140 points total):
Class will consist of a 20 minute problem solving session followed by a lecture (about 15 minutes) and then an “in-class activities” session.  During both the lecture and the in class activity I will ask “clicker” questions.  Your active participation in class is an important part of the learning process, and so clicker questions will compose a portion of your grade.  In-class activity from clickers is worth a total of 5 points each class period.  Again, a cushion of four assignments is allowed for technical difficulties or other issues that might keep you from participating with your clicker in class.

3) Discussion Board Participation
To encourage use of the discussion board, every substantial posting you make in Canvas (question or answer), earns back one participation point lost on pre-lecture or in class assignments.  You may not earn more than 280 participation points total.

Exams  Exam #1 (200 pts) – Monday 9/19 – EERC 103  6:00-7:15 PM
Exam #2 (400 pts) – Thursday, 10/20 - EERC 103  6:00-7:15 PM
Exam #3 (400 pts) - Thursday, 11/17 - EERC 103  6:00-7:15 PM
Final Exam (600 pts) - Per final exam schedule

Exams will be given on the dates/times above.  All exams will be open book, open note, and contain essay questions and multiple choice problems.  Exams 2 and 3 will focus on material covered since Exam 1.  The final exam is comprehensive with an emphasis on untested material.  Except for extreme circumstances, exams will not be given at alternate times without an excuse from the dean of students, faculty advisor, or coach.
Homework (WebAssign) (33 assignments, 20 points each, 2 “free”, 620 points total)
“Practicing” physics is the best way to learn it. As such, there is significant homework. Homework counts as a substantial part of your grade. Your homework grade comes from doing end of chapter problems and submitting answers through an internet homework tool called WebAssign (www.webassign.net).

End of chapter problems listed on the calendar should be attempted BEFORE class time each class day. A subset of these problems (which are boldfaced) must be done (and will be graded) in WebAssign. Beware! Your problems in Webassign may have numerical values different from the book and from other students; you are welcome to just work problems directly in WebAssign first if you wish—however, my solutions and all discussion board postings will use numbers from the textbook which we all have in common.

When you come into class, a list of problems will be on the board. You are expected to “vote” for the problems you’d most like to see worked, and during the first 20 minutes (or so) of class, I’ll discuss problems/questions starting with the most popular. After this discussion, and using the discussion board or other resources, you are expected to get all questions answered during the afternoon and evening and finish up the homework by 11:00 AM the next day. (Tuesday, Thursday, or SUNDAY in the case of Friday assignments.) (In most cases, you’ll also be expected to start/try the NEXT assignment during the same time interval.)

These deadlines are meant to keep you on pace. There is lots of material in the course, and if you don’t keep up, the course will almost certainly “get away from you.” If you expect you will have issues meeting deadlines, please contact me in advance to work things out!

WebAssign grades problems automatically, and allows me to grade typed answers (for conceptual questions) manually. The specifics of accessing/using WebAssign are available at:
http://www.phy.mtu.edu/~mrmeyer/webassign-s04

Late homework, prelecture quizzes, or in-class assignments kind will not be accepted unless you contact me in advance OR I receive an excuse via e-mail from the Dean of Students office, appropriate coach, or faculty advisor. If you know that you will miss an assignment, please contact me by e-mail at least one day in advance to make arrangements to submit work.

Approximate Grading Scale
Overall grades will be assigned with the approximate cutoff points as follows:
A 2250 B 2000 C 1750 D 1500
AB 2125 BC 1875 CD 1625 F <1500
I reserve the right to adjust these cutoffs downward, but will not adjust them upward.
My expectations
PH1110 is pretty intense. We meet 3 hours each week, and I expect that you will spend close to 3 hours outside of class for each contact hour. This means you should plan to spend at least 6-9 hours/week OUTSIDE of class on this course. Many students find it takes more time during some of the more difficult material.

This system seems complicated, but it has worked very well for students who use it. An example schedule for the first week goes like this:

Prior to Monday, Aug 29, 11:00 AM
- Read the assigned text (Chapter 1, section 1-6)
- Complete the pre-lecture quiz (#1) in Canvas by 11:00 AM on 8/29

Between 11:00 AM on 8/29 and 11:00 AM on 8/31
- Come to lecture with your clicker and complete the in class activities.
- Attempt to work the assigned problems for Tryby 8/31 (See calendar) from the book and in Webassign.
  **Make a list of those you’re unable to finish.
- Read the assigned text for 8/31 (Sections 1.7 and 1.8)
- Complete the 8/31 pre-lecture quiz. (#2) by 11:00 AM on 8/31

Between 11:00 AM on 8/31 and 11:00 AM on 9/2
- Come to lecture (#2) with your list of problems from Tryby 8/31 and your clicker for in class activities. The first 20 minutes will focus on your questions on Tryby 8/31.
- Using the help from class and the discussion board, finish up Tryby 8/31.
- Attempt to work the assigned problems for Tryby 9/2 (See calendar) from the book and/or in Webassign.
- Read the assigned text for 9/2 (Sections 2.1 and 2.2)
- Complete the 9/2 pre-lecture quiz. (#3) by 11:00 AM on 9/2

Between 11:00 AM on 9/2 and 11:00 AM on 9/7
- Come to lecture (#3) with your list of problems from Tryby 9/2 and your clicker for in class activities. The first 20 minutes will focus on your questions on Tryby 9/2.
- Using the help from class and the discussion board, finish up Tryby 9/2.
- Attempt to work the assigned problems for Tryby 9/7 (See calendar) from the book and in Webassign.
  ** Make a list of those you’re unable to finish.
- Read the assigned text for 9/7 (Sections 2.3-2.6)
- Complete the 9/7 pre-lecture quiz (#5) by 11:00 AM on 9/7.

The cycle continues from here. Note that even though all assigned questions and problems will not be graded through WebAssign, all are important in terms of preparing for exams.

Summary
I will be available by e-mail, watching discussion boards, and for meetings in person. The physics learning center is also a free service available to students desiring more help; more information will be given in class about this.

I assign homework to give you practice working problems so that you are ready for the exams. I give pre-lecture quizzes to encourage reading and in-class assignments to check your understanding and progress. Doing these things well is like practicing for a recital or training for a marathon. You may find a way to cut corners, but if you don’t use the tools to gain a real understanding of the physics, exams will be very difficult.

It is not my intention to “get” anyone; my role is both to help you with your study of physics as much as I can AND to judge your progress objectively. I give you opportunities to ask questions about most assignments before they are due—but you need to be ready to ask. If you get “stuck”, you need to seek help as soon as possible, either from a friend or acquaintance that has taken physics, from the learning center, or from me. The cumulative nature of this course makes getting “unstuck” in a timely fashion very important! Keep the lines of communication open, and we’ll have a great semester.

ADA STATEMENT: Michigan Technological University complies with all federal and state laws and regulations regarding discrimination, including the Americans with Disabilities Act of 1990. If you have a disability and need a reasonable accommodation for equal access to education or services at Michigan Tech, please call the Dean of Students Office, at 487-2212. For other concerns about discrimination, you may contact your advisor, Chair/Dean of your academic unit or the Affirmative Programs Office, at 487-3310.