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

Materials
Required Text: College Physics: Reasoning and Relationships Volume II, Nicholas J. Giordano © 2009
High speed internet access to BlackBoard (courses.mtu.edu), 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 BlackBoard (http://courses.mtu.edu) 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 25 points (five 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 five 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 (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 (300 pts) –Tuesday, 2/1  EERC 103  6:00-7:15 PM
- Exam #2 (350 pts) –Thursday, 3/3  EERC 103  6:00-7:15 PM
- Exam #3 (350 pts) – Tuesday, 4/5  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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>2250</td>
</tr>
<tr>
<td>B</td>
<td>2000</td>
</tr>
<tr>
<td>C</td>
<td>1750</td>
</tr>
<tr>
<td>D</td>
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<tr>
<td>AB</td>
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<tr>
<td>BC</td>
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</tr>
<tr>
<td>CD</td>
<td>1625</td>
</tr>
<tr>
<td>F</td>
<td>&lt;1500</td>
</tr>
</tbody>
</table>

I reserve the right to adjust these cutoffs downward, but will not adjust them upward.
My expectations
PH1210 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, Jan 10, 11:00 AM
- Read the assigned text (Chapter 17, sections 1,2, and 4)
- Complete the pre-lecture quiz in BlackBoard by 11:00 AM on 1/10

Between 11:00 AM on 1/10 and 11:00 AM on 1/12
- Come to lecture and complete the in class assignment
- Attempt to work the assigned problems for Tryby 1/12 (See calendar) from the book and/or in Webassign.
  **Make a list of those you’re unable to finish.
- Read the assigned text for 1/12 (Sections 17.3 and 17.5)
- Complete pre-lecture quiz. #2 by 11:00 AM on 1/12

Between 11:00 AM on 1/12 and 11:00 AM on 1/13
- Come to lecture with your list of problems from Tryby 1/12. The first 20 minutes will focus on your questions.
- Participate in lecture #2 and complete the in class activities.
- Using the help from class and the discussion board, finish up Tryby 1/12 – due by 11:00 on 1/13.

Between 11:00 AM on 1/13 and 11:00 AM on 1/14
- Attempt to work the assigned problems for Tryby 1/14 (See calendar) from the book and in Webassign.
  ** Make a list of those you’re unable to finish.
- Read the assigned text for 1/14 (Section 18.1)
- Complete pre-lecture quiz #3 by 11:00 AM on 1/14.

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: Please contact me as soon as possible you have a disability that will require any accommodations during the semester. Reasonable accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and MTU guidelines.