

PHY 2170/2175

Course Information

Fall 2012

Instructor: Professor Caroline Morgan

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NB: Please limit email to administrative issues, and not physics problems. It is very difficult to explain concepts in physics over email.

Office Hours: Tuesdays and Fridays 3:00-4:30 P.M.

Lecture Time/Room: MTWF 1:55-2:50 PM
2009 Science Hall

Quiz Section Hours/Location/Quiz Section #/Instructor:

M	3:00-3:55 PM	216 State Hall 10998 (2170), 13515 (2175)	Morgan
W	12:50-1:45 PM	135 State Hall 10532 (2170), 13510 (2175)	Godfrey
Th	12:50-1:45 PM	135 State Hall 14533 (2170), 13507 (2175)	Keyes
F	12:50-1:45 PM	112 State Hall 11037 (2170), 13512 (2175)	Keyes

Course Materials:

- Text – *University Physics* by Bauer and Westfall, 1st edition, available in the Barnes and Noble campus bookstore. This is also the textbook for Physics 2180 / 2185. The version going up to Ch. 35 contains all the material in 2180/2185; the version going up to Ch. 40 contains some further material on modern physics. Used textbooks may also be available. **Note:** in this first edition, there are a significant number of errors in the answers and the solutions manuals.
- WebAssign access card, included in the price of a new textbook as ordered at the BN campus bookstore, or, if you are not getting a new textbook from the bookstore, available separately from the Barnes and Noble campus bookstore. Or, pay online at www.webassign.net. If you pay online, make sure to select the Bauer and Westfall textbook, 1st edition. Your WebAssign account is already set up, and the login information should have been mailed to your WSU email account.
- i>Clicker2 remote ("clicker"). Note that it is the i>Clicker2 with numeric capacity that is required, not the i>Clicker. Follow the directions on the Blackboard website for this course to enroll your clicker in this course. Registered clicker needed by Class 5, 9/7/12.

Pre-requisites and Co-requisites:

Pre-requisite MAT 2010 is required. MAT 2020 is the corequisite. For PHY 2171 (Lab) taken concurrently with PHY 2170, it is a separate, one-credit laboratory course, with its own instructors, grades, procedures, and Lab Manual; *I do not teach this lab course.*

Quiz Sections:

Meet once per week, to allow you to discuss homework assignments, ask questions regarding the lectures, textbook, and other course materials, and learn problem-solving

skills. There will be also be 10-15 minute quizzes in the quiz sections on the days indicated in the attached course schedule. The quizzes will be made up and graded by the quiz instructors and may cover any of the course material since the last quiz or exam. Your quiz section grade will be determined by the best 5 out of 6 quiz grades. There will be no make-ups for the quizzes. At the end of the course, I will rescale the quiz section grades if needed to take into account differences in grading styles between different quiz instructors.

Tuesday Problem-solving Session:

The Tuesday class is run as an additional quiz section in that it will focus on answering your questions and on problem solving strategies and practice; in this class there will be clicker questions instead of periodic handed-in quizzes.

Lectures and Reading Assignments:

The tentative schedule of lectures and reading assignments for this course is given below and also posted on Blackboard. It is important to complete the assigned reading and review/understand the lectured materials of the last class *before* the next lecture.

i>Clicker2 Quizzes:

Clickers will be used in all MTWF classes both for unannounced questions at the beginning of class, covering the assigned reading, and for questions during class. It is very helpful to me to be able to ask the entire class to answer a question (in a confidential manner) in the middle of the lecture, so that I will know whether the majority of students have understood a major point and I can go on the next point. 20% of the credit for these clicker questions will be for your attendance and participation (*i.e.* for answering the question) and 80% of the credit will be for answering correctly. In order not to penalize you for occasional clicker malfunctions, forgetting your clicker, etc., I will drop the lowest 15% of scores (if we have a total of 100 clicker questions, I will drop your lowest 15 scores).

Please note that unless I ask you to consult with your neighbor, you are expected to answer all questions independently as in any other quiz or exam. As in any other graded activity in the course, academic dishonesty will result in a loss of credit for that activity. For example, bringing in and using the clicker of an absent student will result in a reduction of the total clicker credit earned by both students by 40% .

Homework:

- 1) Online homework: Posted on the WebAssign online website (<http://www.webassign.net>) and graded automatically. You "do" a WebAssign problem by logging in to the WebAssign site, reading the problem, working it out on the side, and entering the answer in the website. You may try again to get the answer right, with 7% less credit for each attempt after the first. Late submission of solutions will not be accepted. Please consult the Student Guide on the WebAssign website for more information.
- 2) Some other practice homework problems will be assigned each week in addition to the WebAssign problems. Although the practice problems will not be graded, it is

strongly recommended that you work out all the problems yourself before bringing them to the quiz sections for discussion. Also, it is very important to handle your homework and understand the course materials in a timely fashion. Due to the fast pace of the course, it is almost impossible to recover after once falling behind.

Exams

There will be three in-class exams, in addition to the cumulative final exam at the end of the semester. All of these exams will be closed book. You **MUST** bring your Wayne State ID to the exam and present it to a proctor when handing in the exam. No electronic devices (other than a calculator) are allowed. Any conduct of academic dishonesty will not be tolerated. In this course, for the first instance of cheating on an exam (or a quiz), the exam (or quiz) will be graded down 40%. For the second instance, the exam (or quiz) will be failed with a zero, and for the third, the course will be failed. In each case, including the first, a memo will be sent to the Physics Department describing the circumstances.

The in-class exams will focus on selected chapters from the text, although you may be required to apply concepts from earlier chapters as well. The final exam will cover all the course material, however material covered at the end of the course, which was not included on the previous exams, will be somewhat more heavily emphasized on the final exam than material which has been covered by a previous exam.

Exams will consist of

- Conceptual questions (multiple choice)
- Short numerical questions (no partial credit)
- Long numerical questions (2/3 of the credit for the calculation; 1/3 of the credit for the correct answer)

Absences during scheduled exam times are strongly discouraged - real emergencies will be dealt with on a case-by-case basis.

Planetarium show (extra credit):

You can obtain 1% extra credit by attending a show at the Wayne State Planetarium. The show schedule will be announced as soon as possible. You will need to sign an attendance form at the end of the show. The planetarium instructor will send me the attendance record of all students at the very end of the semester. This extra credit will therefore be added to the Blackboard grade book only at the very end of the semester.

Grading:

Your course grade will be determined by your grades on the in-class exams and the final exam, the clicker quizzes in the MTWF classes, the quizzes given in the quiz section, and the WebAssign homework, as follows:

Three in-class exams	42% total (14% each)
Final exam	32%
Clicker quizzes	8%
Quiz Section	10%

WebAssign	8%
Extra credit	1% (planetarium show)

Grading scale:

A 90 – 100%	B- 70 – 75%	D+ 50 – 55%
A- 85 – 90%	C+ 65 – 70%	D 45 – 50%
B+ 80 – 85%	C 60 – 65%	D- 40 – 45%
B 75 – 80%	C- 55 – 60%	F 0 – 39%

Additional Resources and Help:

Physics Resource Center, located in Room 172 of Physics Research Building. The scheduled hours will be announced later, or can be found from the physics department main office. This is a Help Center for students taking undergraduate physics; here you can get assistance with your homework, lab work, and other issues related to this course.

Student Disability Services: If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. The SDS telephone number is 313-577-1851 or 313-577-3365 (TDD only). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University. Please be aware that a delay in getting SDS accommodation letters for the current semester may hinder the availability or facilitation of those accommodations in a timely manner. Therefore, it is in your best interest to get your accommodation letters as early in the semester as possible.