

# PHY 2180/2185 University Physics Winter 2017

**TIME (for lectures):** M, W and F 1:30 –2:20 pm

**LOCATION:** 1107 Old main

**TEXT:** Fundamentals of Physics by Halliday, Resnick and Walker, Wiley, 10<sup>th</sup> Ed.

**WebAssign:** Web Assign Access Card

**LECTURER:** Anupam Kumar

**TELEPHONE: OFFICE:** 216 Physics Building

**E-MAIL:** ed2747@wayne.edu (please enter PHY2180/2185 in the subject line)

**COURSE WEB PAGES:** WSU Blackboard; <http://webassign.net>

**OFFICE HOURS:** W and F 3:00pm to 4:00pm

**Learning Outcomes:** The Learning Outcomes for this course, which are essentially the traditional goals in Physics, are that you will be able to apply basic physical laws in the analysis of real-life or unstructured situations (word problems), both descriptively and numerically, for those aspects of Physics covered in this course. You should be able to analyze both existing situations, and those situations that you or someone else constructs.

**Discussion Sections:** Discussion sections meet once per week. The goal of the discussion section is to enhance your learning experience and to help with **your grades** in the course. The discussion section is using the “learning communities” format. The section will be divided into teams, who work together each week. The idea is to have you “doing”, instead of just watching and taking notes. This is generally referred to as **active learning**. Data shows that active learning works. You learn more and remember more. **Active learning communities** can be fun, as well.

Each week there will be an announcement on blackboard presenting the week’s agenda for your discussion section. During the beginning of the first session you will meet your group and get to know each other. A regular activity will be to work on the homework for that week. **There will be a quiz on most weeks in the discussion sections, with questions and problems similar to those on your homework problems.**

On the weeks before exams, there will be a review. The discussion grade will

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contribute 15 % to the full course grade: 10 % for the ?? best of the total ?? quizzes; and 5% for attendance and participation. **No make-up quizzes will be given.**

## Discussion sections:

Each M (3:00-4:50pm, T(1:00-2:50pm) and Th (1:00-2:50pm):

**Exams:** There will be three “hour” exams given during the term, consisting of multiple choice questions (no partial credit). The lowest of the three exam scores may be replaced by the comparative score on the Final Exam; i.e., as a percentage of the total score available on the hour exam in question. **There will be no make up exams, nor exams given early.**

You must bring your Wayne State ID to the exam and be prepared to present it to your professor or a proctor, if asked, during the exam. A group photograph of the class may be taken during each exam. No electronic devices, other than a non-programmable calculator, are allowed at any time during the exams. **Programmable and/or Graphing calculators are not allowed.** The use of any electronic device other than a calculator, including, but not limited to, cellular telephones, music players, or tablet computers, during the exam will be considered as academic misconduct resulting in immediate sanction. More information on academic integrity can be found in a document prepared by the Office of Teaching and Learning, which can be downloaded from: <http://www.otl.wayne.edu/pdf/AIB07Print.pdf>.

**Grading:** Your course grade will be determined by your performance on the three Midterm Exams, Discussion Section results, WebAssign problems, i-clicker questions (?) and the Final Exam.

The Final Exam is cumulative. The course grade will be determined based on the following distribution (any changes will be announced and discussed in class and posted on Blackboard):

## Tentative

Three In-class Midterms	45 points (3x15 = 45 pts)
Final Exam	30 points
Discussion Section Quizzes	10 points
Discussion Section Classwork	5 points
Web Assign problems	5 points
In-class questions (participation)	5 points? ??bonus points]
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Total	100 pts (+ ?? bonus pts)

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## Grading:

Grade	Cumulated Score	Grade	Cumulated Score
A	90-100	C	60-64
A-	85-89	C-	55-59
B+	80-84	D+	50-54
B	75-79	D	45-49
B-	70-74	D-	40-44
C+	65-69	F	0-39

**LABORATORY:** PHY 2181 is the laboratory portion of PHY 2180/85. It is a co-requisite. Therefore you must be enrolled in both courses, concurrently. *The laboratory is a separate course with its own grades and procedures, which will be explained by your laboratory instructor. The experiments in PHY 2181 are designed to complement the material covered in PHY2180/85. Your Laboratory Manual is available online (Blackboard).* **Lab sections of PHY 2181 will not meet until the week of January 16.**

**ONLINE HOMEWORK:** The WebAssign online testing system (<http://webassign.net>) provides online homework submission and grading. The homework assignments completed through WebAssign will contribute 5 points to your final score in the course. If you buy the textbook in the campus store, it should include a WebAssign access card. Access codes can also be purchased separately; and with a credit card at WebAssign, as well. More information is available on the WebAssign website. You will be enrolled for the course in WebAssign with your username (lastname.firstname) and an initial password, same as user ID. You should change your password after you first login. We will discuss these and other aspects of WebAssign at our first class session. Additional information is available in your WebAssign Student Guide.

**ADDITIONAL RESOURCES:** Additional help and support for this course is available in the *Physics Resource Center*, in room 172 Physics Building. This will

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open a few weeks after the beginning of the semester. In addition, both your discussion section instructor and lecturer will have regular office hours where they will be available to discuss any difficulties you may have with the course material.

**WITHDRAWAL DEADLINE:** The deadline to withdraw from the course is Sunday, Mar 26. Any course withdrawal request on Pipeline after this date will be automatically denied.

**ACADEMIC INTEGRITY:** All forms of academic dishonesty are forbidden in this class. Specific examples of academic dishonesty include cheating during exams as well as changing test answers for re-grading. Continuing to write after the exam time is up will result in a score of 0 for that exam. All forms of academic dishonesty will be prosecuted to the fullest extent as outlined in the Student Due Process Policy of the University.

Selected excerpts from the Student Due Process Policy regarding disruptive behavior are presented below. These policies will be enforced during all academic activities relating to PHY 2180/85. Students who are disruptive during lectures, exams, or quiz sections will lose points from their final score for the course. Repeat offenders may fail the course or be brought before the Dean of his or her College for further action.

## Wayne State University – STUDENT DUE PROCESS POLICY

### 1.0 PREAMBLE

1. As provided by the Board of Governors in WSUCA 2.31.01, "Student Rights and Responsibilities," and as mandated by academic tradition, the students of Wayne State University possess specific rights and responsibilities. Students are expected to conduct themselves in a manner conducive to an environment, which encourages the free exchange of ideas and information. Students, as integral members of the academic community, have the right to the assurance that their rights are protected from arbitrary and capricious acts on the part of any other member of the academic community. This Student Due Process Policy is designed to assure that students who are alleged to have engaged in unacceptable conduct receive fair and impartial consideration as specified in this policy.

### 4.0 PROHIBITED CONDUCT

The following conduct is subject to disciplinary action when it occurs on University premises, or in connection with a University course or University documents, or at a University-sponsored activity:

- 4.1 All forms of academic dishonesty.
- 4.3 Physical abuse of another person, or conduct which threatens or endangers another, or physical threats which cause reasonable apprehension of harm.
- 4.6 Disorderly behavior that interferes with activities authorized, sponsored, or permitted by University such as teaching, research, administration, and including disorderly interferes with the freedom of expression of others.

### 5.0 DISCIPLINARY SANCTIONS

Students found to have committed an act, or acts of misconduct may be subject to one

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or more of the following sanctions, which shall take effect immediately upon imposition, unless otherwise stated in writing, except as provided in this policy.

- 5.1 Disciplinary Reprimand. Notification that the student has committed an act of misconduct, and warning that another offense may result in the imposition of a more serious sanction.
- 5.2 Disciplinary Probation. A disciplinary status which does not interfere with the student's right to enroll in and attend classes, but which includes specified requirements or restrictions (as, for example, restrictions upon the student's representing the University in any extracurricular activity, or running for or holding office in any student group or organization) for a specific period of time as determined in the particular case.
- 5.3 Suspension. A denial of the privilege of continuing or enrolling as a student anywhere within the University, and denial of any and all rights and privileges conferred by student status, for a specified period of time. At the termination of the suspension the student will be entitled to resume his/her education without meeting any special academic entrance requirements.
- 5.4 Expulsion.
- 5.5 Restitution.

## 10.0 PRELIMINARY PROCEDURE

10.1 When a faculty member is persuaded that academic dishonesty has occurred, the faculty member may, without using the mechanism of filing a charge, adjust the grade downward (including downgrading to a failing grade) for the test, paper, or other course-related activity in question, or for the entire course.

**CLASS SCHEDULE** (Subject to change: Any changes to the schedule will be announced in class and posted on Blackboard)

- Exam 1            Friday, Feb. 10 (Chapters 21-24)**
- Exam 2            Friday, Mar. 10 (Chapters 25-29)**
- Exam 3            Monday, Apr. 10 (Chapters 30-33)**

**Final Exam        Date to be announced. Cumulative: Chapters 21-36. No early or late exams, including the final, will be given.**

**Details of the material covered in each chapter and considered for each exam will be discussed in lecture and posted on Blackboard in advance of each exam.**

## **Honors Credit**

There may be honors credit given. This will be discussed in class.

**Tips for Succeeding in an Introductory Physics Class.**

There are a number of best-practices that are strongly correlated with achieving a high grade in introductory physics courses. These include:

1. **Get the book.** Read it. Use it. There are LOTS of very good hints and ideas in the Preface. Most students do not read the Preface, but in it the authors have given you their best advice on how to use the text successfully.
2. Actually **read the text** (with a highlighter if you prefer). This should be done before the class lecture, and if possible, afterward as well. Make sure you read the summaries at the end of each chapter – it is very helpful to study a summary of what you’ve learned.
3. **Put in the time.** The textbook recommends (and we agree) that you should be spending at least 2 hours outside of the class for every hour of lecture. This is at least 6 hours per week.
4. **Practice, practice, practice.** Do any discussion section assignments (before class if possible); work both credit and non-credit web assign problems; try not to wait until the last minute to work on the for-credit web assign problems; work on any other suggested problems. In general, you must put in the practice.
5. **Strive for understanding.** Many students feel if they just “get the answer” from a TA or help center person, they have accomplished the task. This is incorrect. You have accomplished your task when you truly understand the problem, how to set it up, how to solve it, and what it is asking. Just completing the problem to get some particular answer is not enough.
6. **If needed, attend your instructor’s and/or quiz instructor’s office hours.** This will be most effective if you bring your book and your homework problems and ask him/her to help you identify and work through your “sticking points.”
7. **Do a self-evaluation (and be honest).** If you really want to know how you will do on the exam, give yourself an honest evaluation. Pick a few problems randomly from the text that you haven’t done before. A friend or family member can help with this. If you can solve it without any other help, you are ready. If you have no idea how to do it, you are not ready.
8. **Memorizing previously worked problems is NOT studying.** Many students feel exam preparation should consist of just “looking over” old problems and old exams. That is incorrect. An exam will generally consist of new, unseen problems. While completely understanding the assigned problems is a good idea, your best strategy is to try to work as many new problems as possible (this is accomplished by practicing, see tip 4).

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**NOTE:** If you need a certain letter grade in this class to get into/stay in a program, please keep track of your grade throughout the semester to make sure that you are above the required level. End of term requests such as "I need grade X to get into/stay in program Y", cannot be given special consideration.

**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. 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.