

ENGINEERING PHYSICS 1 (Physics 1135) Course Handbook Spring 2019

Course coordinator: Dr. Agnes Vojta, 216 Physics, engphys1@mst.edu

Required materials: Textbook *University Physics* (12th or 13th edition) by H.D. Young & R.A. Freedman; Laboratory Manual

Course website: <http://web.mst.edu/~vojtaa/engphys1/>. All course information, handouts, lecture notes and video lectures will be available through the course website. If corrections to this handbook are required, the official version will be the one posted on the course website.

Course goals: The main goals of this course are to develop an understanding of the basic principles of mechanics (statics and dynamics) and to acquire the proper techniques for the solution of physics problems.

Prerequisite: Calculus 1 (Math 1214)

Major Components of the Course

Lecture (Tuesday & Thursday) reviews important concepts and ideas in the reading assignment. One objective of the lecture is to elaborate on concepts that are difficult to master or understand on a first reading of the material. Example problems will be solved to illustrate physical principles and problem-solving techniques. **You are expected to have read the reading assignment before lecture.** The online lectures will be available for viewing for an extended period of time, not just during the scheduled class period.

Recitation (Wednesday & Friday) will be an additional source of instruction on the important concepts with particular emphasis on the problem solving. You will demonstrate your mastery of the material and your problem solving skills by showing how to solve the assigned problems or one similar to them on the chalk board. **Assigned homework is due at the beginning of recitation.** Instructors may also assess your skills by other means, such as worksheets and quizzes.

The instructors for the recitation sections will be announced on the first day of class. Your recitation instructor is your first contact for all questions and concerns regarding the course.

Laboratory (every other week) is designed to reinforce concepts learned in lecture and recitation, to connect those concepts to physical experience, to illustrate scientific method, and master measurement theory. Details see separate lab instructions. The professor in charge of the laboratory is Dr. Waddill.

Physics Learning Center (Tuesday & Thursday). This is an open learning environment where you can solve problems as informal student groups, get help and insight in a relaxed setting, and prepare for your recitation section. You can come at *any* time during its hours of operation in rooms 129-130 of the Physics Building. At least one physics instructor will be there to help you, in addition to several peer-learning assistants, which are students who have successfully completed the course and are trained to help you. Attending the PLC is voluntary, and there are no points associated with it. For details, see <http://physics.mst.edu/studentopportunities/plc/>. In addition, further learning assistance is available in the form of tutoring. For details, see <http://lead.mst.edu/>

Sources of Course Points and Grading

Exams. There will be three one hour long tests given only at **5:00pm** on the Wednesdays listed in the *Schedule of Classes* and a Final Exam given during Finals week. See course website for locations where the tests and final will be given for your recitation section. Each of these four exams is worth 200 points. Your lowest exam score (out of the three tests and the final) will be dropped.

End-Material Test worth 50 points covering material presented after test 3 will be given concurrent with the Final Exam during Finals week.

Homework. Assigned homework will be collected unannounced in recitation, or you may be asked to rework and hand in a homework problem or one similar to it in recitation. Homework will be collected six times, and your lowest homework score will be dropped. To get full credit, you must follow the procedure lined out in the [Problem Solving Procedures](#). If you cannot attend, you should turn in your homework beforehand or send it with a friend. Homework may not generally be submitted in electronic form; you may *request* your instructor's permission for electronic submission *as an exception*. Your instructor may have specific requirements for format and file names, and you have to submit the original at the next recitation.

Recitation. Your instructor will call on you to solve a homework problem or one similar to it on the chalkboard without your notes. Your boardwork solution must follow the procedure lined out in the [Problem Solving Procedures](#). An alternative source for recitation points may be quizzes and worksheets that are collected and graded at the instructor's discretion. There will be no excused absences from recitation. If you are absent, a grade of zero will be recorded. *One* lowest recitation score will be dropped.

Laboratory Reports. There will be six laboratories during the semester. Your reports are to be turned in to your lab instructor at the end of the lab period. The lowest lab score will be dropped. Lab reports will be graded on the basis of 100 points.

| | | |
|-----------------------------|---|------------|
| Course points: Tests | = | 600 |
| End-Material Test | = | 50 |
| Homework | = | 50 |
| Recitation | = | 150 |
| Laboratory | = | <u>150</u> |
| Total Possible Points | | 1000 |

One exam, one recitation score, and one homework score will be dropped. Your recitation points will be 1.5 times your average recitation work percentage after the lowest recitation score has been dropped. Your lab points will be 1.5 times your average lab percentage after the lowest lab grade is dropped.

Absolute Grading Scale: The grade cuts are (to four significant figures):

- A** for 89.50% of total possible points \geq 895.0
- B** for 79.50% of total possible points \geq 795.0
- C** for 69.50% of total possible points \geq 695.0
- D** for 59.50% of total possible points \geq 595.0
- F** for less than 59.50% of possible pts $<$ 595.0

The grade cuts are absolute and will not be lowered. Points will not be added to a student's grade to bring it above the cutoff.

Accessing Grade Spreadsheets

Grades will be posted on the course website and updated periodically. There will be an excel spreadsheet for each recitation section. In **Column A** (Student Personal Identification Number), find the course PIN that was assigned to you. The row with that number gives all the scores that your instructor has recorded for you prior to the last update of the course spreadsheet. Verify that your scores entered for the reported assignments are correct. If they are not, bring all the assignments of that type (homeworks, recitation worksheets, etc.) to your instructor so that your scores can be correctly entered.

Some Course Rules

Those participating in a major university or intercollegiate event on the day of an exam may take the exam on that day at some time other than the regular scheduled time if they have a formal excused absence to participate *and* if the event's Faculty Sponsor can insure test security. To do this, you must submit a typed request to Dr. Vojta, signed by the event's university Faculty Sponsor, *no later than the Tuesday the week before the test*, describing the event and the sponsor's willingness to arrange proctoring and insure test security. See course website for details.

Your lowest exam score will be dropped. This accommodates students who under perform on, or miss, one test for a reason beyond their control: hospitalization, illness, athletic events, family emergency, etc. If you did well on all three tests, you may decide to skip the final. If you request and are issued a grade of Incomplete due to dire personal circumstances at the course's end, all your exams will count in a prorated way, with none being dropped, in the determination of your course grade.

There are NO makeups of exams, recitation assignments, labs or the end material test. If you miss any assignment for *any* reason, a zero will be recorded for that assignment. The lowest homework, recitation, lab and exam scores will be dropped.

Requests for re-grades must be submitted no later than the next recitation after the general return of the assignment in class. Compose a detailed written statement on a separate sheet of paper explaining your request, attach it to the assignment, and submit it to your recitation instructor. If you make a single mistake in what you have written, no change will be made in your score. The entire problem will be re-evaluated; a serious mistake that was not noticed by the original grader *could* result in a lower grade than the one originally given.

Requests for spreadsheet corrections. In case a score is not entered correctly in the spreadsheet, you must bring your recitation instructor the assignment in question so a correction can be made. It may be necessary to bring all assignments of this type (homework, recitation worksheet) in order to have your scores entered correctly. Corrections must be requested no later than two weeks after the scores have been posted online. All requests for spreadsheet corrections must be made before the start of the Final Exam.

Communication. Contact information for all instructors is posted on the course website. We will try to respond to your emails within 24 hours during the week.

Do not engage in disruptive behavior. A course instructor may request the campus Judicial Officer to take effective disciplinary action after issuing a single warning (see *Student Code of Conduct* at <http://registrar.mst.edu/academicregs/>).

Academic Dishonesty will not be tolerated. See <http://registrar.mst.edu/academicregs/>.

Students with too many missed assignments will be dropped. Any student who has missed a total of 5 assignments of any kind (tests, homework, recitation assignments, and labs) can be dropped from the course. Students with 5 or more missed assignments will not be allowed to switch to Hearer status.

Emergency exit: Egress maps for the physics building can be found at <http://designconstruction.mst.edu/floorplan/>

Appeals. In extremely rare cases, you may believe an exception to a course rule should be made. In this case, you may file a written appeal with your recitation instructor. Appeals must be filed within one week of the occurrence of the circumstance that causes your appeal, or by the end of your last recitation in the semester, whichever comes first. Your appeal will be carefully considered by the entire Physics 1135 teaching staff. This appeals policy applies to course rules given in this handbook, but does not apply to laboratories. Minor illness, lack of preparation, non-emergency family events, oversleeping, forgetting a test date or poor performance etc. are not reasons for filing an appeal.

Unresolved complaints about laboratory or recitation instructors. It is hoped that all conflicts can be resolved in a collegial manner through discussion between student and instructor. However, if such a situation continues or remains unresolved, please feel free to discuss it with Dr. Vojta. If you have complaints about your lab instructor, please contact the professor in charge of the lab portion of the course, Dr. Dan Waddill (waddill@mst.edu)

Unresolved complaints about the course: It is hoped that any complaints about the course can be resolved through discussions with Dr. Vojta. However, if there are any complaints that cannot be resolved, you may contact Dr. Kate Drowne, Associate Dean for Academic Affairs (kdrowne@mst.edu).

Class and exam cancellation policy. If classes are officially cancelled, a media advisory will be issued. If lecture is cancelled, the online version will be available and replace the in-seat lectures for that day. It is not possible to reschedule an exam. If campus is closed during the time an exam would have been given (which is extremely rare and never happened before), the exam will be cancelled and not rescheduled. The total number of course points will be reduced by the number of points the exam would have been worth, and grades assigned on the usual percentage basis. If campus is closed on the day before, or the morning of, an exam, do **not** assume the exam will be canceled – if campus is open at exam time, the exam will take place as scheduled.

Course assistance

If you have a disability and anticipate needing accommodations in this course, you are encouraged to meet with Dr. Vojta early in the semester. You will need to request a letter from Disability Support Services (<http://dss.mst.edu>, 203 Norwood Hall, 341-6655, dss@mst.edu) verifying your disability and specifying the accommodation you need and give this to Dr. Vojta before we can arrange your accommodation. **Testing accommodations require seven days notice.** If you are unable to perform boardwork because of a disability or condition that hampers your public performance, you need to discuss this with your recitation instructor to determine an alternative way of accessing your mastery.

Academic assistance is available in various forms. The Physics Learning Center for this course operates on Tuesdays and Thursdays 2:00-4:30 pm and 6:00 – 8:30pm in rooms 129-130 Physics. The Learning Enhancement Across Disciplines (LEAD) program offers walk-in tutoring. See <http://lead.mst.edu/> for details. Contact your recitation instructor or Dr. Vojta if you have concerns or need additional assistance.

Title IX policies, resources and reporting options are available at <http://titleix.mst.edu>.