PHYSICS 2135 COURSE HANDBOOK
Spring 2016


This handbook is your guideline for Physics 2135: Engineering Physics II procedures. If corrections are required, the “official” version of this handout is maintained on the Physics 2135 web site.

Major Course Elements

Lecture (Mondays and Wednesdays). Lectures will elaborate on concepts that are difficult to master or understand on a first reading of the material. In addition, examples will be worked to demonstrate the concepts and assist in the development of your problem solving skills. You are expected to have completed your reading assignment prior to lecture.

Recitation (Tuesdays and Thursdays). Recitation will be an additional source of instruction on important course concepts, with emphasis on developing the problem solving skills necessary for completion of the assigned homework. Your mastery of the material and your problem solving skills will be tested through collection of the assigned homework and student presentation of homework at the chalkboard.

Physics Learning Center (Mondays and Wednesdays). This is an open learning environment where you can solve problems in informal student groups, get help and insight in a relaxed setting, and prepare for your recitation class. You can come at any time during operating hours in rooms 129-130 of the Physics Building. At least one physics instructor will be there to help you.

Laboratory (every other week beginning the second week of classes). See the “Physics 2135 Laboratory” handout for details. This handout is available from your laboratory instructor, or online at http://campus.mst.edu/physics/courses/2135lab/. The laboratory is designed to reinforce concepts learned in lecture and recitation, to connect those concepts to physical experience, to illustrate scientific methods, and teach measurement theory.

Sources of Points and Grading

Exams. There will be three hour exams, given only at 5:00 PM on the Tuesdays listed in the Schedule of Classes. See the course website for location where the exams will be given for your recitation section. The final exam is at 3:00 PM, Wednesday, May 11. These four exams are worth 200 points each. Your lowest exam score (out of the three exams and the final) will be dropped.

End-Material Test. A 50-point end-material test will be given concurrent with the final exam on May 11. This test will cover material presented in class after the material for Exam 3.

Lecture Quizzes. Twelve multiple choice quizzes will be given to test your comprehension of the fundamental ideas in recent assignments. The two lowest quiz scores will be dropped.
Recitation Homework. On unannounced recitation days, assigned homework will be collected, or you may be asked to work and hand in a homework problem (or one similar to it) during recitation. A total of six homework sets will be collected and your lowest score will be dropped.

Recitation Boardwork. Your recitation instructor will call students to solve a homework problem (or one similar to it), usually on the blackboard, and without the use of notes. If you are absent, a grade of zero will be recorded. One lowest boardwork score will be dropped.

Laboratory. 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. Lab reports will be graded on the basis of 100 points, and reports will be returned by your lab instructor. The lowest lab report score will be dropped. Each Physics 2135 student must purchase a lab manual. Manuals are available in the department office. Students not purchasing a lab manual will receive a laboratory grade of 0.

Course Points:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>600</td>
</tr>
<tr>
<td>End Material Test</td>
<td>50</td>
</tr>
<tr>
<td>Lecture Quizzes</td>
<td>50</td>
</tr>
<tr>
<td>Recitation Homework</td>
<td>50</td>
</tr>
<tr>
<td>Boardwork</td>
<td>100</td>
</tr>
<tr>
<td>Six Laboratories</td>
<td>150</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
</tr>
</tbody>
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One exam, two quizzes, and one homework score will be dropped. Your boardwork points will be your average boardwork percentage after the lowest boardwork score is dropped. Your lab points will be 1.5 times your average lab percentage after the lowest lab grade is dropped. Grading is on an absolute scale. The cut-offs for grades are:

- **A** ($\geq 89.5\%$) $\geq 895.0$
- **B** ($\geq 79.5\%$) $\geq 795.0$
- **C** ($\geq 69.5\%$) $\geq 695.0$
- **D** ($\geq 59.5\%$) $\geq 595.0$
- **F** ($< 59.5\%$) $< 595.0$

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 normal time if they submit a written request for an excused absence *and* if the event’s Faculty Sponsor can ensure exam security. The student must submit a written request (email is acceptable) to Dr. Pringle, acknowledged in writing (email is acceptable) by the event's Missouri S&T Faculty Sponsor, *no later than the end of the last Wednesday lecture the week before the exam*. The Faculty Sponsor must be willing to arrange proctoring and ensure exam security. More information is available at [http://campus.mst.edu/physics/courses/24/CourseInformation/sponsor_mst.pdf](http://campus.mst.edu/physics/courses/24/CourseInformation/sponsor_mst.pdf).

Your lowest exam score will be dropped. This accommodates students who miss one test due to reasons beyond their control (minor illness, athletic events, family events, etc.).
There are NO make-ups of exams, lecture quizzes, recitation assignments, labs, or the end-material test. Any missed assignment will result in a grade of zero. The two lowest lecture quiz scores, and the single lowest homework, boardwork, lab, and exam score will be dropped. There will be no laboratory make-ups. Laboratory policies are set by faculty in charge of the labs. Because the lowest lab score is dropped, no make-ups will be given.

Regrade policy. Requests for regrades must be submitted no later than the end of the second recitation meeting after the general return of the assignment, except that lab regrade requests must be submitted in accordance with the current lab policy. Except for labs, all regrade requests must be submitted to your recitation instructor. Compose a detailed but brief written statement on a separate sheet of paper explaining why you are requesting a regrade. Attach the sheet to the front of the full assignment and submit it to your recitation instructor by the appropriate deadline. For laboratory report regrade requests follow the instructions here: http://campus.mst.edu/physics/courses/2135lab/Physics%20Lab%20Regrade%20Request.pdf.

There are occasional instances in which a score is not entered correctly in the spreadsheet record. In such an event, you must bring your recitation instructor the assignment that was incorrectly recorded, and the correction will be made. It may be necessary to bring all assignments of that type (homework, quizzes, etc.) in order to have your scores correctly entered. Spreadsheet corrections involving exams must be requested within two weeks of posting of the exam grades. Other spreadsheet corrections must be requested before the start of the Final Exam.

Academic dishonesty will be dealt with severely (see http://registrar.mst.edu/academicregs).

Disruptive talking and other distractions will not be tolerated. There are too many students in a room to allow 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).

Students with inadequate attendance may be dropped. Any student who has inadequate attendance, as evidenced by 7 confirmed absences or by missing a total of 7 graded assignments of any kind (exams, homework, quizzes, boardwork, and labs) may be flagged with an S&TConnect Early Alert. Students who fail to take the recommended action are subject to being dropped if a subsequent class or assignment is missed.

Appeals. In 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 of the semester, whichever comes first. Your appeal will be carefully considered by the entire Physics 2135 teaching staff. This appeals policy applies to course rules given in this handbook, but does not apply to laboratories. Minor illness, lack of preparation, “I did poorly on two exams,” non-emergency family events, oversleeping, “I forgot about it,” etc., are not reasons for filing an appeal.

Other Course Policies. See http://campus.mst.edu/physics/courses/24/CourseInformation/ for other course policies not described in this handbook.
Complaints About the Course

Unresolved complaints about a laboratory or recitation instructor: Occasionally, a student has a conflict with a laboratory or recitation instructor. It is hoped that any complaints can be resolved in a collegial manner through discussions between student and instructor. However, if such a situation continues or remains unresolved, please feel free to discuss it with Dr. Pringle. He will act as a go-between, or you may be able to switch to a different section. If your difficulties are with your laboratory instructor, you may also contact Dr. Hagen who is in charge of the laboratory portion of the course, or Dr. Waddill who is assisting with the labs.

Unresolved complaints about the course: It is hoped that any complaints about the course can be resolved in a collegial manner through discussions with Dr. Pringle. However, if there are any complaints that cannot be resolved, you may take them up with Dr. Dan Waddill, Chairman, Physics Department (waddill@mst.edu).

Course Assistance

If you require additional assistance you should not hesitate to take advantage of the multiple opportunities available to receive help. You may arrange for extra assistance with your recitation instructor or through the Physics Learning Center (PLC). The PLC for Physics 2135 will operate on Mondays and Wednesdays between 2:00-4:30 pm and 6:00-8:30 pm. If you desire additional or alternate learning assistance and consultation for this course visit the web site of the Learning Enhancement Across Disciplines (LEAD) program at http://lead.mst.edu/.

If you have a documented disability, you are encouraged to meet with Dr. Pringle to discuss the accommodations you will need. You should request that the Disability Services staff (http://dss.mst.edu/) send a letter to Dr. Pringle verifying your disability and specifying the accommodation you will need. We are not allowed to discuss your grades or academic performance with parents, guardians, etc., unless you fill out this form: http://registrar.mst.edu/media/administrative/registrar/documents/parentswaiverform.pdf.

Accessing Physics 2135 Course Material on the Web

Course handouts, schedules, assignments, your grades, and other course information may be found on the Physics Department Web Site http://physics.mst.edu/classes/class24/.

Viewing Grade Spreadsheet in Microsoft Excel

In Column D (Student Personal Identification Number), find the 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 the assignments in question to your recitation instructor so that your scores can be correctly entered. It may be necessary to bring all assignments of that type (homework, quizzes, etc.) in order to have your scores correctly entered. This spreadsheet is usually updated weekly after the first exam.