PHYSICS 2135 COURSE HANDBOOK
Summer 2019

(The “official” version of this handout is maintained on the Physics 2135 Canvas page.)

Instructor: Jim Musser, Ph.D.


Course Description: An introduction to electricity, magnetism, and light, with emphasis on topics needed by engineering students. Prerequisites: Physics 1135 or Physics 1111, Math 1221 or Math 1215

Purpose

The purpose of this course is to provide students with knowledge, conceptual understanding and problem-solving skills in the discipline, so that students have the opportunity to be successful in further studies in science and/or engineering.

Major Course Elements

Professionalism [Required]. Faculty and staff will model professional behavior and expect professional behavior from students. Professional behavior includes respectful interactions with all others both face to face and in correspondence, regular punctual attendance, regular completion of assignments, active engagement in course activities and appropriate outside commitment of time and resources.

Lecture [Required] (Tuesdays, Wednesdays, Thursdays and Fridays). 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 [Required] (Tuesdays, Wednesdays, Thursdays and Fridays). 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.
Laboratory [Required] (Wednesdays). 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 during classes as listed in the lecture schedule. See the course website for location where the exams will be given for your recitation section. The final exam is Friday, July 27. These four exams are worth 200 points each. Your lowest exam score (out of the three exams and the final) will be dropped.

Homework and Quizzes. Homework will be randomly collected and/or a quiz will be given with a problem similar to a homework problem. At least 6 grades will be given for the combination of quizzes and homework. The lowest score will be dropped. The homework/quiz grade is separate from the recitation grade listed in the next section.

Recitation. Students will be randomly called upon to solve a homework problem (or one similar to it), usually at the blackboard, and without the use of notes. If you are absent when called, a grade of zero will be recorded. One lowest board work score will be dropped. In addition, your recitation instructor may collect and grade other written work that you do during recitation, including test-level problems. A maximum of 150 points will be given for work done during recitation. [There is not universal number of recitation assignments. The final recitation average will be converted and reported relative to a 150 point maximum.]

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>
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<tbody>
<tr>
<td>Exams:</td>
<td>600</td>
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<tr>
<td>Quizzes:</td>
<td>50</td>
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<tr>
<td>Homework:</td>
<td>50</td>
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<tr>
<td>Recitation:</td>
<td>150</td>
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<tr>
<td>Six Laboratories:</td>
<td>150</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
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</tbody>
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One exam, one quiz and one homework score will be dropped. Your recitation points will be your average recitation percentage times 1.5 after the lowest recitation 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 ($\geq 89.50\%$) $\geq 895.0$
- B ($\geq 79.50\%$) $\geq 795.0$
- C ($\geq 69.50\%$) $\geq 695.0$
- D ($\geq 59.50\%$) $\geq 595.0$
- F (< 59.50\%) $< 595.0$

**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. Musser, 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. See course website for details.

**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.). 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 make-ups of exams, recitation assignments, labs, or the end-material test.** Any missed assignment will result in a grade of zero. The single lowest homework, recitation, 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. **Regrade requests for the End Material Test and the Final Exam must be submitted immediately following the initial reporting of the grades to students in order to accommodate regrading prior to the official grade reporting deadline.**

**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 (e.g. homework, 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, and 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](http://registrar.mst.edu/academicregs).

Students with inadequate attendance may be dropped. Any student who has inadequate attendance, as evidenced by 5 confirmed absences or by missing a total of 5 graded assignments of any kind (exams, homework, recitation, and labs) are subject to being dropped if a subsequent class or assignment is missed.

Appeals. If you believe an exception to a course rule should be made, 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 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.

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. Musser. He will act as a go-between, or you may be able to switch to a different section.

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. Musser. However, if there are any complaints that cannot be resolved, you may take them up with Dr. Thomas Vojta, Physics Department Chairman.

Course Assistance

If you require additional assistance you should attend office hours or make an appointment for a time convenient for yourself and Dr. Musser.

If you have a documented disability, you are encouraged to meet with Dr. Musser to discuss the accommodations you will need. You should request that the Disability Services staff ([http://dss.mst.edu/](http://dss.mst.edu/)) send a letter to Dr. Musser verifying your disability and specifying the accommodation you will need. 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 demonstrating your mastery.