

PHYSICS 2135 COURSE HANDBOOK

Fall 2022

This handbook is your guideline for Physics 2135: *Engineering Physics II*. If corrections are required, the “official” version of this handout is maintained on the Physics 2135 web site (<http://campus.mst.edu/physics/courses/24/index.html>) and in the Canvas course.

Textbook: *University Physics Vol. 2 and Vol. 3*, Ling, Sanny and Moebs. May be viewed or downloaded from the OpenStax web site.

<https://openstax.org/details/books/university-physics-volume-2>
<https://openstax.org/details/books/university-physics-volume-3>

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. See student Honor Code (<https://stuco.mst.edu/documents/honor-code/>).

Lecture [Required] (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 [Required] (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, collection of in-class exercises and student presentation of homework at the chalkboard.

Physics Learning Center (PLC) [Recommended] (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 (2-4:30pm and 6-8:30pm) in rooms 129-130 of the Physics Building. The PLC is staffed by peer tutors and course instructors. For more information about the Physics Learning Center, contact your recitation instructor or the LEAD office (573-341-7276, lead@mst.edu).

Laboratory [Required] (alternating weeks). 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 **5:00 pm – 6:00 pm** on the Tuesdays listed in the *Schedule of Classes* (**Sept. 20, Oct. 25** and **Nov. 15**). See the course website for the location where the exams will be given for your recitation section. The final exam is **3:00 – 5:00 pm, Tuesday, Dec. 13**. 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 **Dec 13**. This test will cover material presented in class after the material for Exam 3.

Homework. On unannounced recitation days, assigned homework will be collected during recitation. A total of six homework sets will be collected and your lowest score will be dropped.

Recitation. Your recitation instructor will collect and grade work that may include presentation of homework problems on the board and test-level problems. If you are absent when called to present a problem, a grade of zero will be recorded. A maximum of 150 points will be given for work done during recitation. Your recitation instructor will provide additional grading details. [Note that there is not a 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. Students not purchasing a lab manual will receive a laboratory grade of 0.*

Course Points:	Exams:	600
	End Material Test:	50
	Homework:	50
	Recitation:	150
	Laboratory:	<u>150</u>
	Total	1000

One exam, and one homework score will be dropped. Your recitation instructor will describe how your recitation grade is determined. 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

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 graded material, except that lab regrade requests must be submitted in accordance with the current lab policy. Regrade requests for the Final Exam must be submitted as soon as possible in order to complete the regrade before grades are due. 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.

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.

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.

Attendance and Participation

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.

There are NO make-ups of exams, recitation assignments, labs, or the end-material test for unexcused absences. 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.

Those participating in a major university or intercollegiate event on the day of an exam may make arrangements with Dr. Musser to take the exam if they submit a written request for an excused absence. 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.*

Students who are ill, quarantined or otherwise unable to attend are encouraged to contact Care Management (cm@mst.edu). In addition, students who are unable to attend will need to contact their recitation instructor to make arrangements to complete and submit course work.

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.

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.

S&T Campus-Wide Policies

Statement about Copyright, FERPA, and Use of Video

It is vitally important that our classroom environment promote the respectful exchange of ideas. This entails being sensitive to the views and beliefs expressed during discussions whether in class or online. Please obtain instructor permission before recording any class activity. It is a violation of University of Missouri policy to distribute such recordings without authorization and the permission of all who are recorded. More information is provided [online](#).

Accessibility and Accommodations

It is the university's goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on a disability, please contact Student Disability Services at (573) 341-6655, sdsmst@mst.edu, visit <http://dss.mst.edu/> for information.

Student Honor Code and Academic Integrity

- All students are expected to follow the [Honor Code](#).
- Page 30 of the Student Academic Regulations handbook describes the student standard of conduct relative to the University of Missouri System's Collected Rules and Regulations section 200.010, and offers descriptions of academic dishonesty including cheating, plagiarism and sabotage (<http://registrar.mst.edu/academicregs/index.html>), **any of which will be reported to the Vice Provost for Academic Support.**
- Other resources for students regarding academic integrity can be found [online](#).

Well-Being and UCARE (<https://go.mst.edu/ucare-report>)

Any of us may experience strained relationships, increased anxiety, feeling down, alcohol/drug misuse, decreased motivation, challenges with housing and food insecurity, etc. When your mental well-being is negatively impacted, you may struggle academically and personally. If you feel overwhelmed or need support, please make use of S&T's confidential [mental health services](#) at no charge. If you are concerned about a friend or would like to consult with a Care Manager, please make a [UCARE referral](#) for support and assistance.

Health and Well-Being Canvas Course.

(<https://umsystem.instructure.com/enroll/G3LY3G>)

The Health and Well-Being Canvas Course offers the Miner Well-Being Certification Program, a semester-long certification where participants can engage with campus-wide services and initiatives and develop skills that contribute to personal well-being and student success. Students can enroll in the free course at any time.

Nondiscrimination, Equity, and Title IX

Missouri University of Science and Technology is committed to the safety and well-being of all members of its community, and to creating an environment free from discrimination and harassment.

The University does not discriminate on the basis of race, color, national origin, ancestry, religion, sex, pregnancy, sexual orientation, gender identity, gender expression, age, disability, protected veteran status, and any other status protected by applicable state or federal law. As used in this policy, the word “sex” is also inclusive of the term “gender.”

Additionally, US Federal Law Title IX states that no member of the university community shall, on the basis of sex, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any education program or activity. Violations of this law include sexual harassment, sexual assault, dating/domestic violence, and stalking.

In accordance with The Collected Rules and Regulations University of Missouri, Missouri S&T requires that all faculty and staff members report, to the Missouri S&T Equity Officer, any notice of discrimination disclosed through communication including but not limited to direct conversation, email, social media, classroom papers and homework exercises.

Missouri S&T’s Equity Officer and Title IX Coordinator is Chief Diversity Officer Anitra Rivera. Contact their office at (573) 341-6038; 203 Centennial Hall) to report violations of the university’s nondiscrimination policies, including Title IX. To learn more about resources and reporting options (confidential and non-confidential) available to Missouri S&T students, staff, and faculty, please visit <http://titleix.mst.edu>.

Classroom Egress Maps

For all in-person instruction, faculty should explain where the classroom emergency exits are located. Classroom egress maps are posted at <http://designconstruction.mst.edu/floorplan/>.