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 (http://campus.mst.edu/physics/courses/24/index.html) and on the course Canvas.

**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-3

**Internet Access:** Students must be able to interactively participate in Zoom sessions for recitations and labs.

**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

**Lecture Instructor:**  
Dr. Jim Musser  
Physics 122  
musserj@mst.edu

**Office Hours:** Mondays and Wednesdays 11:30am – 12:30pm

**Recitation Instructors:**  
Dr. Marco Cavaglia  
Dr. Jim Musser  
Dr. Jerry Peacher  
Jayson Summers  
Dr. Shun Saito  
Dr. Thomas Vojta

Contact information for recitation instructors is provided in Canvas and on the course web site. Office hours for recitation instructors will be provided by the instructors for their sections.

**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 (http://stuco.mst.edu/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. Times and location for PLC will be available on the course web site, on Canvas and at http://lead.mst.edu.

Laboratory [Required]. See the “Physics 2135 Laboratory” handout for details. This handout is available 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. 22, Oct. 27 and Nov. 17). See the course website for the location where the exams will be given for your recitation section. The final exam is 3:00 pm – 5:00 am, Wednesday, Dec. 16. 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. 16. 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 call students to solve a homework problem (or one similar to it). If you are absent when called, a grade of zero will be recorded. In addition, expect your recitation instructor to 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. Recitation instructors will provide students with their grading policy. [The final recitation average will be converted and reported relative to a 150 point maximum.]

Changes to the Course Handbook and Syllabus due to COVID-19

Policies have been implemented to reduce the risk of contracting and/or transmitting COVID-19. The in-person lectures have been moved to a large facility allowing for social distancing. Completely online recitations have been created. In-person recitations and labs will meet with only a portion of the enrolled students on a rotating basis. Exams will be administered online utilizing Canvas.

Students enrolled in one of the in-person lecture sections have the option of viewing the lectures online instead of attending the in-person lectures. The online lectures are available to all students on the course web site and accessible through Canvas.

In the event that campus is closed at some point during the semester, contingency plans have been made. Information regarding changes will be provided on Canvas and on the course web site. Contingency plans include the possibility of moving all remaining lectures, labs and recitations to completely online. Changes to the course may result in a change in the number of assignments collected. In the unlikely scenario that changes affect the calculation of grades, instructors will provide information about the grade calculation.
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:

<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>Homework</td>
<td>50</td>
</tr>
<tr>
<td>Recitation</td>
<td>150</td>
</tr>
<tr>
<td>Six Laboratories</td>
<td>150</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
</tr>
</tbody>
</table>

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 (≥ 89.50%) ≥ 895.0
- B (≥ 79.50%) ≥ 795.0
- C (≥ 69.50%) ≥ 695.0
- D (≥ 59.50%) ≥ 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 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.

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.

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 Academic Regulations at 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.

**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 Voja, Physics Department Chairman.

### Course Assistance

**The Student Success Center.** SSC was developed as a campus-wide initiative to foster a sense of responsibility and self-directedness to all S&T students by providing peer mentors, caring staff, and approachable faculty and administrators who are student-centered and supportive of student success. The Student Success Center in Toomey Hall was designed for students to visit and feel comfortable about utilizing the campus resources available. Visit the SSC at 198 Toomey Hall; 573-341-7596; success@mst.edu; Facebook: www.facebook.com/SandTssc; web: http://studentsuccess.mst.edu/

**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 disability, please contact Student Disability Services at (573) 341-6655, dss@mst.edu, visit http://dss.mst.edu/ for information and to initiate the accommodation process.

### Additional Important Information

**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 speak with me before recording any class activity. It is a violation of University of Missouri policy to distribute such recordings without my authorization and the permission of others who are recorded. More information is provided online.

**Well-Being and UCARE**

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. For a quick guide to campus resources that address specific issues please visit our Well-Being Referral Guide, available as a website at https://minerwellness.mst.edu/well-being-referral-
guide/. 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. https://stuaff.mst.edu/ucare/.

Student Honor Code and Academic Integrity

- The Honor Code all students are expected to follow can be found at this link: http://stuco.mst.edu/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 or sabotage (http://registrar.mst.edu/academicregs/index.html).
- Additional guidance including the University’s Academic Dishonesty Procedures is available at http://academicsupport.mst.edu.
- Other resources for students regarding ethics and integrity can be found at http://academicsupport.mst.edu/academicintegrity/studentresources-ai.

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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 Neil Outar. Contact him (naoutar@mst.edu; (573) 341-6038; 203 Centennial Hall) to report violations of the university’s nondiscrimination polices, 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/.