

Physics 2211L 58 – Spring 2020
Text: Physics 1 Laboratory Manual

The following schedule will be used for this lab during this semester:

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| Jan. 17 | 1 | Introduction to Data Analysis |
| Jan. 24 | | No Lab |
| Jan. 31 | 2 | Free Fall |
| Feb. 7 | 3 | Atwood's Machine |
| Feb. 14 | 4 | Friction |
| Feb. 21 | 5 | Uniform Circular Motion |
| Feb. 28 | 6 | Conservation of Energy and Momentum |
| Mar. 6 | 7 | Rotation |
| Mar. 13 | 8 | Ballistic Pendulum |
| Mar. 20 | 9 | Equilibrium |
| Mar. 27 | 10 | Simple Harmonic Motion |
| Apr. 3 | | No Lab |
| Apr. 10 | 11 | Resonance |
| Apr. 17 | | No Lab |

You should plan to attend all scheduled lab meetings. Should you miss one lab, this will not significantly affect your lab score unless you also have a low score that you would need to be able to drop. There will be *no opportunity* to make up a missed lab. Each lab will be graded on a 20-point scale. The numeric score upon which your letter grade is based will be calculated by dividing the sum of the best 10 lab grades (if all 11 are completed) by 10. If less than 11 labs are completed the semester lab grade is the sum of the completed labs divided by 10.

Some of the labs will be short enough that you will be able to turn the lab in during the lab period. If the lab does not involve extensive calculation, answers in words to questions, or graphing you will be expected to remain in lab until you are able to submit your completed lab report. Do not make other plans during the lab period.

If the lab does involve a graph, or written answers to questions you may be allowed to complete that work at home. There are two important things to note about this: 1) all such labs are due at the **beginning** of the next lab period and will be counted as late *any time* after that, and 2) all labs removed from the lab room **must** be initialed by the lab instructor prior to being taken from the lab room. *No labs* removed from the lab room and subsequently submitted without the lab instructor's initials will be accepted for credit. There will be **no exceptions** to this policy. [It is not, however, necessary to obtain the lab instructor's initials on lab reports submitted in lab on the day that the lab is performed.]

Any labs submitted late are subject to a late penalty. One point will be subtracted for any amount late, and one additional point will be subtracted for each additional lab period that the lab is late. Any lab that is already late and turned in after the last lab meeting will be subject to an additional one-point deduction. **No** lab reports will be accepted after Friday, April 17.

The lab reports are to be submitted on the data sheets that are contained in the Lab Manual. The top portion of those sheets includes a line for a list of lab partners. Failure to fill out the lab partner list will result in a 1-point deduction from the lab score. For any labs that require multiple pages to be submitted, those pages must be properly joined together with either a paper-clip or a staple. There are staplers located in the lab room. A 1-point deduction will also be applied for failure to properly join pages together.

Each week's lab activities will be preceded by a short "lecture" describing the lab and/or the lab equipment to be used. During this lecture you should be in your seat and paying attention. Lab activities, talking, etc. will not be permitted during this time. *Be sure to purchase your lab manual and read both the introduction and the first lab prior to the first lab meeting.*

Be sure to arrive at the beginning of the lab, which is 12:20 p.m. You will not be permitted to start the lab if you are more than 15 minutes late in arriving.

No food or beverage may be brought to lab. No use of tobacco in any form (including electronic cigarettes) is permitted in lab. Shoes are required to be worn in the lab; sandals are not acceptable footwear for the lab.

Deactivate all cell phones, pagers, and similar devices prior to entering the lab room. No texting, emailing, web use, or other non-lab interactions may be conducted during the lab period.

Students completing this laboratory course should:

- 1) demonstrate the ability to use the GLX datalogger with a variety of sensors,
- 2) be able to perform error calculations related to both their collected data and results calculated from those data,
- 3) be able to graphically represent their experimental results.

At KSU, you are required to have a minimum grade of 'C' in any course (including this one) in order to use it as a pre-requisite for a more advanced course unless the department providing that course explicitly decides otherwise.

PHYS 2211 is a prerequisite, which may be taken concurrently, for PHYS 2211L; the converse, however, is no longer true. You are not required to presently be enrolled in PHYS 2211L in order to take PHYS 2211. Programs that require PHYS 2211 generally also require PHYS 2211L and, generally, courses that require PHYS 2211 as a prerequisite also require PHYS 2211L. [If you have previously taken and passed PHYS 1111L you may be able to substitute it since they are actually identical. Check with an advisor in your college or department.] The actual content of PHYS 2211L is identical to that of PHYS 1111L.

Students are solely responsible for managing their enrollment status in a class; nonattendance does not constitute a withdrawal. The last day to drop this course with a grade of 'W' is Wednesday, February 26. Official KSU policies regarding withdrawals from classes (as well as additional information on additional registration-related policies) can be found at the following address:

<http://catalog.kennesaw.edu/content.php?catoid=24&navoid=2171#withdrawalfromclasses>.

Any student with a documented disability or medical condition needing special accommodations for testing or other class-related activities must contact the instructor concerning this matter as soon as possible. Written verification from the KSU Student Disability Services at: <http://studentsuccess.kennesaw.edu/sds/> is required. No special accommodations can be made prior to completion of this approved University documentation. All discussions will remain confidential.

Every KSU student is responsible for upholding the provisions of the Student code of Conduct, as published in the Undergraduate and Graduate catalogs. The Student Code of Conduct addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic malicious/intentional misuses of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Student Conduct and Academic Integrity department, which includes either an "Informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement. The link to the full university honor code is: <https://web.kennesaw.edu/scai/content/ksu-student-code-conduct>.

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Note: Use the email address above to contact me. Do not send email through D2L. D2L *will forward* email to my regular address but the mail server will block any reply I send back to you. Also, send only from your KSU Student Outlook account. If you send from within D2L, I cannot respond in any case and generally the message will arrive with a label saying I sent it. I will most likely think it's fraudulent. Further, if you send from a personal account, it is not secure; I cannot respond to anything covered by privacy guidelines if you use a personal account. Note: any message that I send you will come from my regular faculty address or from the mass mailer within D2L. If you receive anything purporting to be from me that is coming from any other system, discard it. [We have had several fraud attempts of various sorts using impersonations.]

office hours for Spring 2020

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| Tuesday | 10:00 – 10:50 a.m. | 3:00 – 4:00 p.m. |
| Thursday | 10:00 – 10:50 a.m. | 3:00 – 4:00 p.m. |

On days that this lab class meets I'll also be available for some time before and after its meeting.