Physics 2211   -- Fall 2019

Text: <u>Physics for Scientists and Engineers</u>, 10th ed., by Serway and Jewett
Prerequisite: Math 1190

The topic areas for this course are: Mechanics, Gravitation, Vibrations, Waves, and Special Relativity. There will be five tests given during the semester. During each test you may use a 1-page [8.5 × 11, front & back] formula sheet, which you will prepare and bring with you. A model formula sheet will available at the course D2L BrightSpace site. Each of the (regular) tests will be composed of seven multiple-choice items and two free-response items; the final exam will consist of twenty-five multiple-choice items.

The test schedule for this semester is:

Test 1	Chapters 2 – 4	Monday, September 9
Test 2	Chapters 5 – 7	Monday, September 30
Test 3	Chapters 8 – 10	Wednesday, October 23
Test 4	Chapters 11 – 13	Monday, November 11
Test 5	Chapters 38, 15, 16	Friday, December 6
Exam	comprehensive	Monday, December 16

The final exam will not be individually rescheduled to accommodate any other plans. There are *no exemptions* from the final exam. [The time period for the exam is 10:30 am – 12:30 pm.]

Plan to take the tests as scheduled; no make-up tests will be given and tests will not be individually rescheduled. If one test is missed a replacement score will be created from the corresponding problems on the final exam. *The final exam will consist of five sections of five items each.* [If the absence was *unavoidable* and the reasons for it are *verifiable*, then the reasons *must be* submitted *in writing*, along with appropriate documentation, upon your return to class. This statement must also be signed.] If more than one test is missed without such reasons (or if the reasons are not provided as described) a grade of zero will be assigned for each missed test after the first. [The replacement procedure described is applied for each *excused* absence.] If *at least* four tests are taken and there have been *no un-excused* test absences, the lowest test score will be compared to a score produced from the corresponding material on the final exam and the higher of the two grades will be used as the score for that test.

The point credit distribution for the class is as follows:

5 tests @ 9 points each	45 points
Homework	16 points
Quizzes	14 points
Final Exam	25 points

This list contains all of the sources for credit in this course. No "special projects", papers, re-opened homework, etc. will be made available at the end of the course to repair an individual's grade. Stay on track and get the credits as they become available.

Cell phones, pagers, etc. must be silenced during class. Especially during testing, no use of any device capable of transmitting a signal is permitted. Cell phones may not be used as calculators; be sure to bring a working calculator with you for the tests. Any use of a communication device during a test will produce a grade of zero on the test and be reported as academic misconduct. Late-arriving students will not be allowed to begin a test if other students have already completed the test and left the classroom.

Homework problems will be assigned for each chapter covered. The tests and the final exam for this course will be primarily problem based instruments, though each will also include conceptual items. The homework problems are intended to provide practice for the tests. The assigned homework sets represent a minimum number of problems for the material covered; if you find particular areas to be difficult you should find similar problems to those assigned and do those also.

Homework *collection* will be done through WebAssign. You *must have* access to WebAssign in order to obtain homework credit. See the information given at the D2L site for self-enrollment and start-up procedures for WebAssign. [The class key appropriate for your section will be sent to you by email.] Note that WebAssign provides a 14-day *grace period* during which you can enroll without an access code, though you do need a class key. WebAssign includes an e-book of the course text; you do not need to purchase, separately, a book unless you want it.

The WebAssign system will compute a percentage score (points obtained divided by points available for each assignment, then it will compute an average of those percentage scores (dropping the two lowest-scored assignments) and report that average percentage score to me. I will multiply that fraction by 16; this will be your homework score.

Every assignment will have a clearly-indicated deadline for submission; no extensions will be given for students missing those deadlines. No assignments will be re-opened at a later date. Each assignment will be available for a minimum of one week. Also, it is very important that you do all assigned work in a timely manner – not just the part of it that is submitted through WebAssign for grading.

Quizzes will be given through D2L BrightSpace. There will be ten 2-point quizzes, but the total value for them is capped at 14 points. The quizzes will occur on the following days: Aug. 27, Sept. 3, Sept. 17, Sept. 24, Oct. 8, Oct. 17, Oct. 31, Nov. 5, Nov. 19, and Dec. 3. [There are no *make-ups* for quizzes; the extra points allow up to three misses, but you advised to miss none.] {Each opens 9:00 p.m. the date prior to the all-day availability and closes at 6:00 a.m. on the date following it. Most are on Tuesday, but two are on Thursday.}

KSU requires you 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.

The items in the following list are the expected Course Learning Outcomes for PHYS 2211:

Students completing this course will be able to:

1. *Analyze and solve kinematical problems for systems moving in one and two dimensions using pictorial, graphical, physical, or mathematical representations (including calculus and vectors) of the system, and other representations as appropriate.*
2. *Analyze and solve statics and dynamics problems using Newton's laws (including the law of gravitation) in one and two dimensions using multiple representations including free-body diagrams and mathematical descriptions (including calculus and vectors) of the system.*
3. *Analyze and apply the conservation laws (energy and momentum) for linear and rotational systems, and develop solutions using multiple representations, including pictorial, graphical, or mathematical (including calculus and vectors) descriptions as appropriate.*
4. *Explain simple harmonic motion and compute parameters related to it in such applications as mass-spring oscillators, simple pendulums, and sinusoidal transverse waves.*
5. *Use special relativity to analyze differences in the behavior of objects as observed in different inertial reference frames, and explain the equivalence of mass and energy.*

PHYS 2211 satisfies one of Kennesaw State University's general education program requirements. It also addresses the Natural Sciences general education learning outcome. The learning outcome for Natural Sciences states: Students will demonstrate an understanding of college-level scientific principles, theories, and laws, and apply them to solve problems and explore natural phenomena.

For more information about KSU's General Education program requirements and associated learning outcomes, please visit http://catalog.kennesaw.edu/preview_program.php?catoid=29&poid=3434.

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' this semester is Wednesday, October 9. Note that simply not attending will not produce an automatic withdrawal.
Official KSU policies regarding withdrawals from classes (as well as additional information on other registration-related policies) can be found at the following address: http://catalog.kennesaw.edu/content.php?catoid=24&navoid=2171#withdrawalfromclasses. Note also that the College of Science and Mathematics now requires a student to request permission for a *first repeat* of a course.

PHYS 2211L is a lab course that is associated with this course. The lab component is neither a pre-requisite nor a co-requisite for the lecture component, but PHYS 2211 is a pre-requisite or concurrent for PHYS 2211L. Note that generally programs listing PHYS 2211 as a requirement will also require PHYS 2211L and that the same holds for their use as pre-requisites for other courses. Also, Area D will require both if you are using this course there.

A variety of materials will be placed at the D2L site for this course. These include the model formula sheets for each test, a copy of this syllabus, homework assignments, answers to even-numbered assigned problems that were not selected for turn-in through WebAssign, and some other items. There is also a notice concerning policy in the event of university closure.

Breakout (also known as "recitation") will be used to reinforce the lectures; new material will not be introduced during the recitations. The recitation meetings will mainly consist of additional example problems. There will, of course, also be the opportunity to ask questions in a smaller group setting.

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

Any student with a documented disability or medical condition needing academic accommodations of class-related activities (for example, testing) or schedules must contact the instructor immediately. Verification from the KSU Student Disability Services at: http://www.kennesaw.edu/stu_dev/dsss/welcome.html *is required. No special accommodations can be made prior to completion of this approved University documentation. All discussions will remain confidential.*

Each assessment category (tests, quizzes, homework, final exam) produces points that contribute to your total. There are specified numbers of these points in each category, but they all simply add together; *there is no reweighting*. When each test is returned to you it will have both its own score and your total accumulated points to that point written on it. The test score will be in red and the total points score will be in blue.

At the time that the tests are returned (or very shortly thereafter) a histogram of the total scores distribution will be published at the course D2L site; this document will also include a calculation of the present total that would be on track for an ultimate total of 100. This is intended to allow you to compare yourself to the larger group and to also produce a current percentage score for yourself.

At the end of the course, the conversion of the number scores into letter grades is done using the standard 10-point blocks: [90, 100] is A, [80, 90) is B; [70, 80) is C, [60, 70) is D, and below 60 is F. No overall "curve" will be applied. Minor adjustments to the boundaries (especially the C-D boundary) may occur but you should not anticipate that; it also may not occur. Of course, in no case would such adjustments be so as to increase a threshold. {Note that the '[' square-bracket symbol indicates that the end-point *is* included in the range and the ')' close-parenthesis indicates that the end-point is *not* included in the range.}

Professor:	Dr. M. G. Thackston
Office:	H 260-i
Phone:	(470) 578-4214
Email:	mthacks1@kennesaw.edu

To email me, use the address in the box above only, and send the message from your KSU student email address.

I do not monitor the message center at WebAssign.

If you use D2L to communicate with me, the system will forward the message to me, but I will be blocked from replying. If you need a response from me, don't use that channel to ask your question. By the way, it's also possible that I won't notice your message since D2L sometimes places a header that appears to have come from *me*. Use only your KSU student Outlook account to send messages to me.

Office Hours:	
M	1:00 – 3:00
T	2:00 – 3:00
W	3:00 – 4:00
F	12:30 – 1:20