The topic areas for this course are: Mechanics, Gravitation, Special Relativity, Vibrations, and Waves. There will be two tests given during the semester, and a comprehensive final exam at the end of the semester. During each test you may use a single page [8.5 × 11 in.] formula sheet, which you will prepare and bring with you. The two regular tests will be primarily multiple choice but will also each contain three free-response items; the final exam will consist of twenty-five multiple-choice items.

The test schedule for this semester is:

<table>
<thead>
<tr>
<th>Test</th>
<th>Chapters</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test 1</td>
<td>2 – 8</td>
<td>Wednesday, June 21</td>
</tr>
<tr>
<td>Test 2</td>
<td>9 – 13, &amp; 39</td>
<td>Wednesday, July 12</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Comprehensive (includes 15 &amp; 16)</td>
<td>Monday, July 24</td>
</tr>
</tbody>
</table>

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 9:00 – 11:00 am.]

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. [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 both tests are missed without such reasons (or if the reasons are not provided as described) a grade of zero will be assigned for one of the tests. [The replacement procedure described is applied for each excused absence.] If both tests are taken, the lower of the two grades will be compared to the replacement score from the corresponding section of the final exam and will be replaced if improvement has occurred. Two ten-item sections of the final exam will be paired with the tests; the last five final-exam items will cover the remaining chapters.

The point credit distribution for the class is as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 tests @ 20 points each</td>
<td>40 points</td>
</tr>
<tr>
<td>Homework</td>
<td>20 points</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25 points</td>
</tr>
</tbody>
</table>

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; an access code is included in the text for this course. [If you have bought a used book, you need to separately purchase access to WebAssign.] See the information given at the D2L site for self-enrollment and start-up procedures for WebAssign. The WebAssign system will compute a percentage score (points obtained divided by points available, dropping the two lowest-scored assignments) and report that percentage score to me. I will multiply that fraction by 20; 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. It is very important that you do all assigned work in a timely manner – not just the part of it that is turned in for grading.

Quizzes will be given through D2L BrightSpace. There will be six 3-point quizzes, but the total value for them is capped at 15 points. The quizzes will occur on the following dates: June 9, 13, 16, 30; July 6, 18. [There are no make-ups for quizzes; the extra points allow one missed quiz without penalty.]

Cell phones, pagers, etc. must be silenced during class. 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. Late-arriving students will not be allowed to begin a test if other students have already completed the test and left the classroom.

KSU requires 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](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” is Monday, June 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](http://catalog.kennesaw.edu/content.php?catoid=24&navoid=2171#withdrawalfromclasses).

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 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 (at the course D2L site) concerning policy in the event of university closure.

Recitation (also known as breakout) will be used to reinforce the lectures; new material will not be introduced during the recitations. The recitation meetings will primarily consist of additional examples. 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](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 or schedules must contact the instructor immediately. Written verification from the KSU Student Disability Services at: [http://www.kennesaw.edu/stu_dev/dss/welcome.html](http://www.kennesaw.edu/stu_dev/dss/welcome.html) is required. No special accommodations can be made prior to completion of this approved University documentation. All discussions will remain confidential.

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Email: mthack1@kennesaw.edu