Joseph A. Musser, Ph.D.
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(936) 468-2015, musserja@sfasu.edu, 322H Miller Science Building
Office Hours: MWF 10:00-11:00, M 2:00-4:00 or by appointment
Class lecture: MWF 8:00-8:50 in Miller Science room 334

Course Description: Presentation of the principles of mechanics and heat. Computation of lecture and laboratory grades into one grade; same grade is recorded for both lecture and laboratory. 3 Credit Hours


Course Requirements:
Quizzes: There will be an online quiz administered for each chapter discussed in this course. Each quiz must be completed before the class begins on the day that the chapter will be discussed. The quiz average counts 100 points toward the final lecture grade.

Portfolio: A portfolio of all the problems presented in class will be required. The problems must be presented in standard format on engineering paper. The portfolio will count 200 points toward the final lecture grade.

Exams: There will be four night exams and a comprehensive final exam. The exams consist of three or five problems similar to those worked for homework. Each test will be worth a maximum of 100 points toward the final lecture grade. Students will have one week after the exam is returned to discuss any possible error in the grading. After that time no change will be made in the grade.

Co-requisite: PHY241L (with weekly labs, a recitation, and a final exam); Calculus I (MTH 233); Labs will begin the week of Sept. 4th.

Course Calendar: A more detailed calendar follows on the next page.
Sept. 14th Exam 1, 6:00 pm, MSB 334 Chapters 2-4, Mechanics
Oct. 5th Exam 2, 6:00 pm, MSB 334 Chapters 5-8, Mechanics
Oct. 26th Exam 3, 6:00 pm, MSB 334 Chapters 9-12, Mechanics
Nov. 16th Exam 4, 6:00 pm, MSB 334 Chapters 13, 15, & 16, Mechanics & Heat
Dec. 13th Comprehensive Final Exam Comp. & Chapters 17-19, Thermodynamics

Grading Policy: Each major exam and the final will be graded on a 100-point scale. The final exam will be comprehensive. The final lecture average will be computed as follows:
Lecture Average = (Ex 1 + Ex 2 + Ex 3 + Ex 4 + Final Ex + Portfolio + Quiz Ave)/800
Course Average = 0.75 (Lecture Ave) + 0.25 (Lab Ave)
Letter grades are assigned as A 90.0-100, B 80.0-89.9, C 70.0-79.9, D 60.0-69.9, F <60.0.
**Attendance Policy:** If you have an unexcused absence 3 times or are late 6 times, your final grade will be reduced one letter grade. If you have 4 unexcused absences, you will receive an “F” in the course. If you are going to miss class for a university excused absence you should notify the instructor in advance. It is your responsibility to make arrangements to make up any missed work. If you are sick it is your responsibility to
abide by university guidelines in dealing with your absence. It is the responsibility of the student to provide appropriate written documentation of any excused absence to Dr. Musser within one week of the absence. Failure to provide the documentation within one week of the absence will result in the absence being considered unexcused. Make up exams must be made up within two weeks of the missed exam.

**Program Learning Outcomes:**

- The student will demonstrate proficiency in the basic and applied fields of physics.
- The student will develop good experimental technique, including proper setup and care of equipment, conducting experiments and analyzing results in order to observe physical phenomena, assess experimental uncertainty, and make meaningful comparisons between experiment and theory.
- The student will develop effective written and oral communications skills, especially the ability to transmit complex technical information in a clear and concise manner.

**Course Content:**

- Linear and Rotational Motions
- Newton’s Laws of Motion
- Work-Energy Principles
- Momentum-Impulse Principles
- Gravitational Processes
- Oscillatory Motion
- Hydrostatics and Hydrodynamics
- Heat and Thermodynamics

**General Education Core Curriculum:**

This course has been selected to be part of Stephen F. Austin State University’s core curriculum. The Texas Higher Education Coordinating Board has identified six objectives for all core courses: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

Assessment of these objectives at SFA will be based on student work from all core curriculum courses. This student work will be collected in D2L through LiveText, the assessment management system selected by SFA to collect student work for core assessment. LiveText accounts will be provided to all students enrolled in core courses through the university technology fee. You will be required to register your LiveText account, and you will be notified how to register your account through your SFA e-mail account. If you forward your SFA e-mail to another account and do not receive an e-mail concerning LiveText registration, please be sure to check your junk mail folder and your spam filter for these e-mails. If you have questions about LiveText call Ext. 1267 or e-mail SFALiveText@sfasu.edu.
The chart below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course and uploaded to LiveText this semester, and the date the assignment(s) should be uploaded to LiveText. Not every assignment will be collected for assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in LiveText this semester.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in LiveText</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas though written, oral, and visual communication.</td>
<td>Newton’s Second Law Project</td>
<td></td>
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</tbody>
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Student Learning Outcomes:
By the end of the course, successful students will be able to:
- Demonstrate the ability to apply Newton’s laws to the study of mechanical systems.
- Describe the laws of thermodynamics.
- Solve mechanics and thermodynamics problems using conservation principles.

Academic Integrity (A-9.I)
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)

Withheld Grades Semester Grades Policy (A-54)
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in
future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

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**Students with Disabilities**
To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.