Instructor: Dr. Dan Bruton  
Email: astro@sfasu.edu  
Phone: 936-468-2360  
Office: STEM Room 207Q  
Office Hours: MWF 2-3:15pm, TR 9-11am  
Department: Department of Physics, Physics, and Engineering  
Class Meetings: TR 2-3:15pm (Section 5&6)  
Course Home Page: [www.astro.sfasu.edu/PHY101](http://www.astro.sfasu.edu/PHY101)

**Course Description**  
*General Bulletin:* “Presentation with a minimum of mathematics of the basic concepts of mechanics, light and sound. May not be used to meet graduation requirements by students majoring in the College of Sciences and Mathematics (except for students majoring in Computer Information Systems or Information Technology). Lecture and laboratory grades are computed into one grade and the same grade is recorded for both lecture and lab. Co-requisite: PHY 101L.”  
*Additional Information:* The objective of this course is to become familiar with the basic physical concepts and principles of waves, sound, light, and mechanics. A conceptual rather than a mathematical point of view is emphasized.

**Text and Materials**  
The text is “Conceptual Physics” 12th Edition by Paul G. Hewitt. You will also need the PHY 101 Lab Manual (sold only in local bookstores).

**Course Requirements**  
*Exams:* There will be four major exams, each covering a limited amount of lecture and text material. The chapters covered and the dates of these exams are listed in the course outline on the back of this page. The exams are multiple-choice with about 50 questions. Each student must provide a SCANTRON form number 882-E in order to take each exam. Students will have three class days after each exam to review the exams and discuss the grades. No make-up exams will be given except in the case of an excused absence. A written notice is required for an excused absence within three days of the exam. Any makeup exam must be taken within three class days of the missed exam or a grade of zero will be recorded. The makeup exams may be fill-in-the-blank or essay exams rather than multiple-choice exams.  
*Homework:* Homework assignments will be provided on the course home page.

**Attendance Policy**  
Attendance will be taken on most days during the first minute of class and throughout the class time. If you have 3 unexcused absences, then your final grade will be reduced one letter grade. If you have 4 unexcused absences, you will receive an “F” in the course. A written notice is required for an excused absence within three class days of the absence. During class, we will engage in discussions and occasional activities. Participation in these activities will form part of your final grade.
Grading Policy
Each major exam will be graded on a 100-point scale. The lecture and lab grades will be combined as shown below and the same grade will be recorded for both lecture and lab.

\[
\text{Course Average} = 0.70 \times (\text{Exam Average}) + 0.05 \times (\text{Average of In-Class Activities and Homework Exercises}) + 0.25 \times ((\text{Average of Lab Exercise + Lab Exam}) / 2)
\]

This means that all exams (including the final) are weighted equally, and the lecture portion of the course accounts for 75% of the total grade. The cutoffs for each letter grade are firm. No 'extra credit' work will be assigned to individuals.

A  90.0 - 100   B  80.0 - 89.9  C  70.0 - 79.9  D  60.0 - 69.9  F  < 60.0

Classroom Policies
For the benefit of your fellow students and your instructor, you are expected to practice common courtesy with regard to all course interactions. For example:

- Be considerate toward your classmates and instructor and arrive to class on time.
- Do not leave class early and do not rustle papers in preparation to leave before class is dismissed without speaking with your instructor first.
- Avoid classroom distractions. Be attentive in class.
- If you are late to class or must leave early please inform your instructor in advance (enter or leave quietly, don’t walk across the front of the classroom (use the side aisles) and don’t walk in front of the projector).

Email Communications
Make sure you always use your SFA e-mail account for network correspondence. Messages from your instructor will be sent to your SFA email account periodically.
Academic Integrity (A-9.1)
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

Penalties may include no credit or failure in the course.

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.

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/.
## Tentative Course Calendar

### PHYSICS 101

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### EXAM I
- Chapter 19: Vibrations and Waves
- Chapter 20: Sound
- Chapter 21: Musical Sounds

### EXAM II
- Chapter 26: Properties of Light
- Chapter 30: Light Emission
- Chapter 27: Color
- Chapter 28: Reflection and Refraction
- Chapter 29: Light Waves

### EXAM III
- Chapter 2: Newton's First Law
- Chapter 3: Linear Motion
- Chapter 4: Newton's Second Law
- Chapter 5: Newton's Third Law

### FINAL EXAM
- Chapter 6: Momentum
- Chapter 7: Energy
- Chapter 8: Rotational Motion
- Chapter 9: Gravity
- Chapter 10: Projectile and Satellite
Program Learning Outcomes:
This is a general education core curriculum course and no specific program learning outcomes for this major are addressed in this course.

General Education Core Curriculum
The Texas Higher Education Coordinating Board has identified six core learning objectives: 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.

By enrolling in PHY101 you are also enrolling in a Core Curriculum Course that fulfills the Empirical and Quantitative Skills requirement. You will see this course on your D2L list. At one point during the semester, you will receive an assignment that fulfills both the requirements of this course and the needs of Stephen F. Austin State University’s Core Curriculum Assessment Plan with the Texas Higher Education Coordinating Board. When you complete this one assignment, you need to upload the assignment to both your standard course dropbox determined by your Instructor and the “Core Curriculum” dropbox. The Core Curriculum dropbox will be identified by the Objective for which work is being collected. (Examples: Critical Thinking, Teamwork, Social Responsibility Empirical & Quantitative Skills, Personal Responsibility, Communication Skills-Written, Communication Skills-Written & Visual, and Communication Skills- Oral & Visual.) Please note that this only applies to the approved assignment. All other assignments should be submitted according to regular class operations. If you have any questions, please see your Instructor or the Office of Student Learning and Institutional Assessment.

When you complete the assignment mentioned above, you will upload the assignment to both the PHY101 dropbox and the Empirical and Quantitative Skills dropbox.

Please note that this only applies to the specific assignment listed in the matrix below. All other assignments should be submitted according to regular class operations.

If you have any questions, please see your instructor or contact the Institutional Effectiveness Office at (936) 468-1130.

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 the D2L Empirical and Quantitative Skills dropbox this semester, and the date the assignment(s) should be uploaded to the D2L Empirical and Quantitative Skills dropbox. Not every assignment will be submitted for core assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in the D2L Empirical and Quantitative Skills dropbox.
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<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in D2L</th>
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<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</td>
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<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas through written, oral, and visual communication.</td>
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<td>Empirical and Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</td>
<td>The Simple Pendulum Project</td>
<td>Please see the lab syllabus for the due date.</td>
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<td>Teamwork</td>
<td>To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</td>
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<td>Personal Responsibility</td>
<td>To include the ability to connect choices, actions and consequences to ethical decision-making.</td>
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<td>Social Responsibility</td>
<td>To include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.</td>
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**Student Learning Outcomes:**

By the end of the course, successful students will be able to:

1. Recognize that the world in which they exist can be described by a few natural laws, (SLO 1)
2. Demonstrate a basic familiarity with concepts of waves, sound, light, and mechanics, (SLO 2).
3. Describe natural phenomena in a conceptual manner rather than mathematically, (SLO 3)
4. Demonstrate skills developed in critical thinking, communication (written and visual), empirical and quantitative analysis, and teamwork, (SLO 4. Includes COs 1, 2, 3, 4)