Instructor: Dr. Harry D. Downing, Professor of Physics, Department of Physics and Astronomy
Office: Room 322B Miller Science Building
Office Hours: 10:30-11:30 MWF; 11:00-11:50 TR; 2:30-3:30 MW, or by appointment
Phone, Fax, E-mail: 468-2290 or 468-3001, Fax: 468-4448, hdowning@sfasu.edu
Class Meeting Times and Place: 2:00-3:50 TR, Room 323 Miller Science Building
Physics Homepage: www.physics.sfasu.edu
Text and Materials: College Physics 10th ed (Schaum's Outline, Authors: Frederick J. Bueche and Eugene Hecht)

COURSE DESCRIPTION
3 semester hours, 2 hours lecture and 2 hours recitation per week. Introductory course on engineering/physics analysis with practice in analyzing and solving problems in physics and engineering. Includes use of computational devices and methods.

PROGRAM LEARNING OUTCOMES
There are no specific program learning outcomes for the physics program addressed in this course.

GENERAL EDUCATION CORE CURRICULUM OBJECTIVES/OUTCOMES
This course is not included in the general education core curriculum.

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

- Demonstrate the ability to analyze and solve introductory physics and engineering problems.
- Demonstrate the ability to communicate analysis of problems in a professional manner.
- Exhibit the ability to work in teams/groups effectively.

COURSE OBJECTIVES: The course objectives are to develop basic introductory level problem solving skills in prospective engineers and physicists and to have students become familiar with Newton’s laws and associated conservation principles. A cooperative problem solving approach is taken where students develop time management skills and teaming skills. This course along with analytic geometry will prepare the student for the rigors of the PHY 240 series. The calendar (at the end of this syllabus) outlines the tentative course of study.

COURSE REQUIREMENTS AND GRADING POLICY

HOMEWORK: Your homework problems will be of professional quality and professionally presented. They will be complete in themselves to the extent that any competent person can determine the following: (a) the problem you are solving, (b) your method of solution, and (c) your answer. To assure these things you must adhere to the following rules.

- Use 8 ½ x 11 in. Engineer’s Computation Pad.
- Write in pencil on one side of the page only.
- Each problem must be started on a new page. Staple homework in the upper left corner and leave flat (not folded) before submitting for grading.
- Include the following when working a problem: problem number and statement (word for word), sketch, definition of variables used in the solution, units, vector arrows, numbering of equations when needed for
clarity, organized steps in the solution, and identification of the answers with boxes. Required graphs should be attached to the back of the problem.

Several problems will be selected for grading from each set. The homework grade will count as 100 points toward your final grade.

**PRESENTATIONS:** Presentations, attendance, and performance in class will count as 50 points toward your final grade.

**PORTFOLIO:** A portfolio of all the problems presented in class will be required. Each section of your portfolio will be turned in on the day of the exam which will cover that section. Your problems must be presented in standard format on engineering paper. Your portfolio will count 50 points toward your final grade.

**EXAMS:** There will be six timed exams this semester. Each exam will consist of three or four problems similar to those worked for homework and will be worth a maximum of 100 points toward your final grade. Students will have one week after the exam is returned to discuss any possible error in the grading. Make-up exams will be available to anyone missing an exam with a valid excuse. (A make-up exam might be partially oral.)

**FINAL GRADE:** The maximum total points possible will be 800 and a final grade will be assigned according to the following:

- 720-800 A
- 640-719 B
- 560-639 C
- 480-559 D
- 000-479 F

**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.
- Avoid classroom distractions. Be attentive in class, stay awake, and do not read newspapers, etc.
- If you are late to class or must leave early, please inform your instructor in advance (enter or leave quietly).
- **Cell phones, pagers and other communication devices must be turned off during class.**
- Be kind and respectful to your fellow students and your teachers.

**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. To get a free SFA email account go to https://apache.sfasu.edu/accountman/. You may forward e-mail from your SFA e-mail address to another address of your choice. To do this, use this link: https://apache.sfasu.edu/accountman/mailindex.html.

**ATTENDANCE POLICY**
Absences from class must be made up through extra homework assigned from the PHY 241 text. The first absence incurs one extra homework problem. Any further absences will incur three extra homework problems for each absence occurrence. Each of these extra homework problems must be submitted until each is completely correct. Failure to complete this extra homework will result in a grade of WH until the work is totally completed. (WH’s turn to F’s if not completed within one year.) Every four tardies (five minutes or more late) to class will count as one class absence. **Three unexcused absences from class will result in a grade reduction of one letter grade. Four unexcused absences from class will result in an “F” for the course.**
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

WITHHELD GRADES (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/.

Students with documented disabilities who need course adaptations or accommodations should schedule an appointment with the instructor as soon as possible.

ACCEPTABLE STUDENT BEHAVIOR
Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, Policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed. http://www.sfasu.edu/policies/student_conduct_code.asp