Electricity, Sound, and Light (PHYS 1302) - Wave motion, sound and light, basic electrical and magnetic phenomena. Computation of lecture and laboratory grades into one grade; the same grade recorded for both lecture and laboratory. Prerequisite: PHY 131. Co-requisite: PHY 132L.

Text and Materials:
College Physics 10th edition, Hugh D. Young, Philip W. Adams, Raymond J. Chastain
Supplement: Schaum's Outline College Physics
PHY 132 Lab Manual (produced by the Department of Physics and Astronomy and sold only in local bookstores).

Course Requirements:
Homework, 3 exams and a comprehensive final exam.
The co-requisite, PHY132L, has daily labs and a final exam

Exam I Chapters 30*, 11*, 12
Exam II Chapters 17, 18, 19
Exam III Chapters 20, 21, 22
Final Exam Comprehensive Final Exam with focus on Chapters 23, 24, 25, 26

Grading Policy:
A student who misses 3 or more laboratories or lectures will fail the course.
The laboratory and lecture grades will be combined to form a single grade for both PHY132 and PHY132L as follows:

(90-100) % A  (80-89) % B  (70-79) % C  (60-69) % D  (< 60) % F

Lab Portion - 25 %
Exam I - 15 %
Exam II - 15 %
Exam III - 15 %
Final Exam - 15 %
Homework - 15 %
# TENTATIVE COURSE CALENDAR

## JULY 2018

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## AUG 2018

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<td>Ch 30*: Nuclear and High Energy Physics (30.3, 30.4) Ch 11*: Elasticity and Periodic Motion (11.2 – 11.6) Ch 12: Mechanical Waves and Sound</td>
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<td>Ch 17: Electric charge and Electric Field Ch 18: Electric Potential and Capacitance Ch 19: Currents, Resistance and Direct Current Circuits</td>
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<td>Ch 20: Magnetic Field and Magnetic Force Ch 21: Electromagnetic Induction Ch 22: Alternating Current</td>
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**Homework Problems:**

Ch 30*: Problems: 15, 23, 31
Ch 11*: Problems: 21, 31, 33, 39, 45, 51, 55
Ch 12: Problems: 1, 3, 7, 9, 19, 27, 31, 33, 39, 45, 53
Ch 17: Problems: 1, 7, 17, 23, 33, 35, 39, 47, 49, 55, 61
Ch 18: Problems 3, 7, 9, 17, 23, 29, 41, 47, 55, 65
Ch 19: Problems: 1, 11, 19, 25, 29, 33, 43, 51, 57, 73
Ch 20: Problems: 1, 3, 17, 23, 27, 31, 33, 35, 49, 51, 55, 69, 75
Ch 21: Problems: 1, 5, 9, 13, 17, 21, 25, 29, 33, 37, 41, 47, 51, 53
Ch 22: Problems: 1, 7, 13, 15, 25, 27, 33, 37
Ch 24: Problems: 1, 5, 9, 13, 17, 23, 31, 41, 49, 53
Ch 25: Problems: 1, 11, 21, 23, 27, 31, 35, 41, 47
Ch 26: Problems: 1, 3, 7, 15, 27, 37, 45, 51, 53
Attendance Policy:
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. Three or more absences from lecture/lab will result in a failing grade.

Program Learning Outcomes:
There are no specific program learning outcomes for the physics program addressed in this course.

General Education Core Curriculum Objectives (EEOs):
1. To understand and apply method and appropriate technology to the study of physical science
2. To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry, and to communicate findings, analyses, and interpretation both orally and in writing
3. To identify and recognize the differences among competing scientific theories
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies
5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture

Student Learning Objectives:
By the end of the course, successful students will be able to:
Solve problems using principles derived from Maxwell’s Equations
Analyze DC and AC circuits
Demonstrate an understanding of fundamental wave motion as applied to mechanical and electrical waves
Solve problems involving geometrical and physical optics

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 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/.