

General Physics

PHY 101.002 Syllabus – Fall 2009



Instructor: Dr. Harry D. Downing, Professor of Physics, Department of Physics and Astronomy

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Physics Homepage: www.physics.sfasu.edu

Course Home Page: <http://www.physics.sfasu.edu/downing/101HomePage.htm>

Office Hours/Class Hours: 11:00-11:50 MTWRF; 2:30-3:30 MWF, or by appointment/9:30-10:45 am TR

Texts and Accessories: Conceptual Physics 10th Edition by Paul G. Hewitt, Turning Technologies Turning Point XR student response system (clicker), and PHY 101 Lab Manual (sold only in local bookstores)

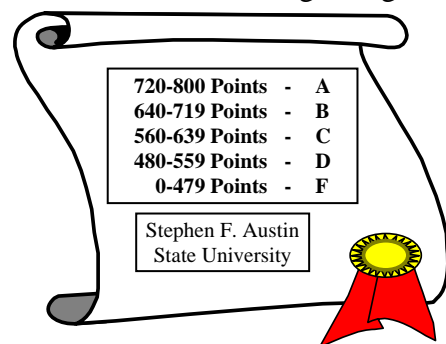
COURSE OBJECTIVE

The course objectives are to become familiar with and have an appreciation for the basic physical concepts and principles of waves, sound, light, and mechanics. A conceptual rather than a mathematical approach is taken.

COURSE INFORMATION

- ◆ There will be three major tests (about 40-50 multiple choice questions per exam) plus a final. (**The Final is comprehensive.**) **Each student must provide a SCANTRON form number 882-E in order to take each test including the final.** Students should become familiar with the policies on [cheating and plagiarism](#).
- ◆ No make-up exams will be given. The final will serve to replace one missed exam for which the student has an [excused absence](#).
- ◆ Students will have one week after exam scores are posted to discuss possible errors in the grading.
- ◆ For each student, lecture and lab scores will be combined to determine an overall grade in PHY 101. Each student will then receive this overall grade for both lecture and lab. The breakdown and grading scale are:

140 points	-	Lecture Test 1
140 points	-	Lecture Test 2
140 points	-	Lecture Test 3
140 points	-	Final Test
40 points	-	In-Class Participation
200 points	-	Lab Experiments and Exams



- ◆ A maximum of 40 **bonus points** will come from attendance, classroom exercises, etc.
- ◆ PHY 101L is a co-requisite to PHY 101. (New editions of the lab manual are available in local bookstores.)

IN-CLASS PARTICIPATION – CLICKER GRADE

You must bring your clicker to class every day. Attendance will be taken using the clicker on most days during the first 60 seconds of class. During class, we will engage in discussions and occasional activities using clicker technology (Turning Point XR). Participation in these activities will form part of your final grade. You cannot earn class participation points if you don't have a clicker. Do not let anyone else use your clicker. If you are observed using two clickers you will receive no credit for the In-Class Participation Grade portion of your final grade.

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, don't walk across the front of the classroom (use the side aisles) and don't walk in front of the projector).
- 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>.

ATTENDENCE

I realize that occasionally there are legitimate reasons for missing a class, an assignment or an exam. In general, absences can be excused for reasons including illness, family emergency or participation in certain university-sponsored events. Absences from exams are the only absences that require documentation. The final exam will serve as a make-up exam for an excused absence from a regularly scheduled exam.

I keep track of attendance using clicker technology. Attendance will be checked at the beginning and at the end of each class. Absence from either one will result in zero clicker points for attendance that day. The maximum possible scores from attendance and clicker grades do not require 100% attendance.

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. Students with documented disabilities who need course adaptations or accommodations should schedule an appointment with the instructor as soon as possible. For additional information, go to <http://www.sfasu.edu/disabilityservices/>.

ACADEMIC INTEGRITY

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

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.

The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

Hints for Success in Physics 101

- ✓ You will benefit much more from lecture if you **read the text** material before coming to class.
- ✓ Attend class and take notes. Don't try to copy everything I say, write on the board, or show in slides or video. Leave enough space in your notes to complement them through a thorough **reading of the text** material. I generally present material in class in the same order as the text. This makes it easier for you to augment your notes.
- ✓ Make use of the material at the end of each chapter. Study the "Summary of Terms" and answer the "Review Questions" (the answers for which are found in the text). Practice on the "Exercises" for they will assist you in applying physics.
- ✓ As a test draws near, **read** the applicable chapters again a few days prior to the exam. On the night before an exam rely on your notes and the material at the ends of the chapters and try to attend the review session that I conduct.
- ✓ If you have problems trying to comprehend this material, please do not hesitate to come and visit with me. I have truly enjoyed working with students, and often I have found that I am most effective with them when they have brought their questions and problems to me in my office.
- ✓ **The most important things you can do are read the book and attend class and be attentive.**

Bring this syllabus to every class meeting.

PHYSICS 101.002

Tentative Course Outline and Calendar

Fall 2009

Chapters and Topics

TEST 1	
Chapter 19	Vibrations and Waves
Chapter 20	Sound
Chapter 21	Musical Sounds

TEST 2	
Chapter 26	Properties of Light
Chapter 30	Light Emission
Chapter 27	Color
Chapter 28	Reflection and Refraction
Chapter 29	Light Waves

TEST 3	
Chapter 2	Newton's First Law of Motion - Inertia
Chapter 3	Linear Motion
Chapter 4	Newton's Second Law of Motion
Chapter 5	Newton's Third Law of Motion
Chapter 6	Momentum

FINAL EXAM	
Chapter 7	Energy
Chapter 8	Rotational Motion
Chapter 9	Gravity

Course Calendar

MON	TUE	WED	THU	FRI
<u>Aug. 31</u>	<u>Sep. 1</u> <i>Intro & Ch. 19</i>	<u>Sep. 2</u>	<u>Sep. 3</u> <i>Ch. 19</i>	<u>Sep. 4</u> <i>Add Deadline</i>
<u>Sep. 7</u> <i>Labor Day</i>	<u>Sep. 8</u> <i>Ch. 19</i>	<u>Sep. 9</u>	<u>Sep. 10</u> <i>Ch. 20</i>	<u>Sep. 11</u>
<u>Sep. 14</u>	<u>Sep. 15</u> <i>Ch. 20</i>	<u>Sep. 16</u> <i>12th Day</i>	<u>Sep. 17</u> <i>Chs. 20 & 21</i>	<u>Sep. 18</u>
<u>Sep. 21</u>	<u>Sep. 22</u> <i>Ch. 21</i>	<u>Sep. 23</u> <i>Review 7-9 pm</i>	<u>Sep. 24</u> <i>TEST 1*</i>	<u>Sep. 25</u>
<u>Sep. 28</u> <i>20th Day</i>	<u>Sep. 29</u> <i>Ch. 26</i>	<u>Sep. 30</u>	<u>Oct. 1</u> <i>Ch. 30</i>	<u>Oct. 2</u>
<u>Oct. 5</u>	<u>Oct. 6</u> <i>Ch. 27</i>	<u>Oct. 7</u>	<u>Oct. 8</u> <i>Chs. 27 & 28</i>	<u>Oct. 9</u>
<u>Oct. 12</u>	<u>Oct. 13</u> <i>Ch. 28</i>	<u>Oct. 14</u> <i>Mid Term</i>	<u>Oct. 15</u> <i>Ch. 28</i>	<u>Oct. 16</u>
<u>Oct. 19</u>	<u>Oct. 20</u> <i>Ch. 29</i>	<u>Oct. 21</u> <i>Review 7-9 pm</i>	<u>Oct. 22</u> <i>TEST 2*</i>	<u>Oct. 23</u>
<u>Oct. 26</u> <i>Degree Deadline</i>	<u>Oct. 27</u> <i>Ch. 2</i>	<u>Oct. 28</u> <i>WP/WF Deadline</i>	<u>Oct. 29</u> <i>Ch. 3</i>	<u>Oct. 30</u>
<u>Nov. 2</u>	<u>Nov. 3</u> <i>Chs. 3 & 4</i>	<u>Nov. 4</u>	<u>Nov. 5</u> <i>Ch. 4</i>	<u>Nov. 6</u>
<u>Nov. 9</u>	<u>Nov. 10</u> <i>Chs. 4 & 5</i>	<u>Nov. 11</u>	<u>Nov. 12</u> <i>Chs. 5 & 6</i>	<u>Nov. 13</u>
<u>Nov. 16</u>	<u>Nov. 17</u> <i>Ch. 6</i>	<u>Nov. 18</u> <i>Review 7-9 pm</i>	<u>Nov. 19</u> <i>TEST 3*</i>	<u>Nov. 20</u>
<u>Nov. 23</u>	<u>Nov. 24</u> <i>Ch. 7</i>	<u>Nov. 25</u>	<u>Nov. 26</u> <i>Chs. 7 & 8</i>	<u>Nov. 27</u>
<u>Nov. 30</u> <i>W Deadline</i>	<u>Dec. 1</u> <i>Ch. 8</i>	<u>Dec. 2</u> <i>Thanksgiving</i>	<u>Dec. 3</u> <i>Thanksgiving</i>	<u>Dec. 4</u> <i>Thanksgiving</i>
<u>Dec. 7</u>	<u>Dec. 8</u> <i>Chs. 8 & 9</i>	<u>Dec. 9</u>	<u>Dec. 10</u> <i>Ch. 9</i>	<u>Dec. 11</u>
<u>Dec. 14</u> <i>Review 7-9 pm</i>	<u>Dec. 15</u> <i>Final (8-10) †</i>	<u>Dec. 16</u>	<u>Dec. 17</u>	<u>Dec. 18</u>

* No make-up exams will be given. The final will serve to replace one missed exam for which the student has an excused absence.

† Comprehensive