Instructor: Susan Fontanilla  
Email: fontans@stthom.edu  
( please put the course name in the subject line of your e-mails, e.g. “PHYS 1332” )

Office: Robertson Hall, Room 108, Phone: 713-525-3835
Office Hours: Mon & Wed: 1:30 – 3:30 p.m. Tue & Thu: 10:30 – 11:30 a.m.  
Other times and days: by appointment

Class Schedule: MWF 09:10 - 10:00 a.m.  
Lecture Room: Robertson R116

Course Description: Phys 1332 is the second semester of a one year, non-calculus based introductory course in Physics for pre-medical and science students. It is a non-calculus introduction to optics, electromagnetism, modern and atomic physics.

Course Objectives: Students will learn electromagnetism, optics and elements of modern and atomic physics. This includes both conceptual understanding and problem solving with non-calculus mathematical tools.

Math Prerequisites: Math 1331 (Pre-Calculus, Algebra & Trigonometry) or equivalent or by permission of instructor. Calculus doesn’t count as a prerequisite. In other words you must already have a working knowledge of algebra, geometry and trigonometry.

Textbook: Good news: your textbook for this class is available for free online! If you prefer, you can also get a print version at a very low cost. Your book is available in web view and PDF for free, or you can purchase on iBooks in two volumes for $2.99 each. Web view is recommended -- the responsive design works seamlessly on any device. College Physics from OpenStax, ISBN 1938168003, www.openstax.org/details/college-physics

Blackboard: Blackboard (http://gregory.stthom.edu) will be used to post the Lecture PowerPoints, homework problems, other assignments, announcements, and many of the quizzes. Therefore you need access to the internet during the semester. Please check Blackboard frequently to look for new assignments or announcements. All computer and Blackboard problems or any technical questions should go to: University Help Desk, Robertson B112, itherhelpdesk@stthom.edu or call 713-525-6900.

Exams: In order to get credit for any solved problems you have to show all your work starting with the formula. Units have to be carried along during calculations. Only Texas Instruments TI-30X calculator (or similar non-graphing scientific calculators previously approved by instructor) is allowed during an exam.

Exam Schedule and Content (tentative)
EXAM 1 (Ch18-21) Feb20 MON; EXAM 2 (Ch22-24) Mar15, WED; EXAM 3 (Ch 25-27) Apr19, WED
FINAL EXAM (Comprehensive - All chapters covered in lecture.) May 10, 2017 08:30 – 11:00 a.m. ROB 116
Grading:

Your final semester grade will be calculated as follows:
60%  3 Chapter Exams (lowest exam score will be replaced with final exam grade if higher)
20%  Final Exam Grade
20%  Homework, Quizzes and Participation

The letter grade for the course is based on the following Grading Scale:

<table>
<thead>
<tr>
<th>Percent Grade</th>
<th>94 – 100%</th>
<th>90 – 93%</th>
<th>87 – 89%</th>
<th>84 – 86%</th>
<th>80 – 83%</th>
<th>77 – 79%</th>
<th>74 – 76%</th>
<th>70 – 73%</th>
<th>67-69%</th>
<th>60 – 66%</th>
<th>0 – 59%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grade</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td>C+</td>
<td>C</td>
<td>C-</td>
<td>D+</td>
<td>D</td>
<td>F</td>
</tr>
</tbody>
</table>

NOTE: students who earn a "C" or lower on any assignments must visit the Tutorial Services Center and/or ust.askonline.net for assistance.

Makeup policy:

No makeup exams will be given. If a chapter exam is missed, that will be treated as the exam to be dropped in favor of the final exam. If for some reason you must miss an exam you are required to: i) let the instructor know BEFORE the regularly scheduled exam time that you will not be able to make the exam; ii) be prepared to turn in copy of document explaining why you missed the exam. Use the email /or phone information above to contact the instructor.

Homework:

Please keep a notebook (no loose sheets of paper!) for homework problems. Work-out assigned problems from each chapter covered in class and turn in on due dates. All possible homework problems will be posted on blackboard. Your homework grade will be based on the total number of problems you solved and following instructions.

To receive credit you must:
- hand in homework on exam day at the beginning of class (before we start on the exam)
- show all your work (not just solutions but calculations and explanations for conceptual problems)
- be neat and legible (if I can’t read it I can’t grade it!)
- put a box or circle around your final result
- start a new page for each problem (except for Conceptual and short Questions)

You can often receive credit for a problem even if you do not get the correct answer-- as long as you show serious effort in tackling the solution. There will be no credit for handing in homework late!

Quizzes:

Quizzes will be given to assess your understanding of the material we covered previously in class. Typically they will be given via clickers or online or randomly in class whenever we have finished one chapter. The online quizzes have to be completed within the given time frame. There’s no make-up for quizzes.
Attendance: “The University expects all students to be regular and punctual in class attendance. Frequent unexplained absences may result in a student being administratively withdrawn from the course or in a grade reduction or failing grade, at the discretion of the faculty member” (see also Undergraduate Catalog). Each unexcused absence from class, including absence at the start of the lecture, may result in a percent decrease in the final semester numerical grade, or in dropping one homework or quiz score. Remember, 5% of your total grade is based upon your class attendance and participation. Please sign the attendance sheet at the beginning of class.

What Is An Excused Absence? An excused absence includes hospitalization of yourself or an immediate family member, death of an immediately family member, or attendance at an approved school-related activity. Excused absences must be documented in writing. You will need to make a copy of the written excuse that I can keep for my attendance records or you may send it to me via e-mail. Try to schedule elective medical care outside of the class time. Document your excused absence on the day you return to class. After that, your absence will count as unexcused.

Accessibility and Accommodations: Reasonable accommodations will be made for students with disabilities according to the University’s policy. If you need special accommodations, please see the Office of Counseling and Disability Services (C&DS) located on the second floor of Crooker Center. You need to provide a special accommodations document immediately at the beginning of the term so appropriate arrangements can be made.

Academic Honesty: All students are subject to the university’s Policy on Academic Dishonesty and the UST Student Handbook. This extends to any quizzes taken online via Blackboard. Cheating includes looking at or copying from another student’s exam, communicating or receiving answers during an exam, having another person take an exam or complete a project or assignment, using unauthorized notes, texts, or other materials for an exam, and obtaining or distributing an unauthorized copy of an exam or any part of an exam. Aiding and abetting - if you help another person commit academic dishonesty you will face similar consequences. Cheating will be punished in accordance with University procedures.

Getting the Most Out of Your Course:

- Prepare for class, read the chapter before the lecture, then read the material again after class discussion of the topics.
- Participate actively in class. Bring your calculator every meeting. Take notes, solve, ask and answer questions. Work out all assigned homework problems. Re-read the chapter and study the worked examples. Pay attention to units. Practice, practice, practice.
- Have fun with physics. Work with a group. Share something interesting that you have heard, read or watched related to our lessons.
- REMINDER: In class, keep all electronics out of sight. Please DO NOT use your iPad, tablet, or laptop and DO NOT take or place any calls or texts during class time.

And finally:

I hope you’ll have a successful semester and find that physics is an exciting adventure of the human mind!
## General Physics II (PHYS 1332) Syllabus

**Spring 2017**

### Class Schedule*

<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>START of Class: Friday, 01/20: Syllabus, Intro, Ch 17 Sound Waves</td>
<td>01/25: Ch 18 Electric Charge and Electric Field</td>
<td>01/27: Ch 18 Electric Charge and Electric Field</td>
</tr>
<tr>
<td>2</td>
<td>01/23: Ch 17 Sound Waves</td>
<td>01/25: Ch 18 Electric Charge and Electric Field</td>
<td>01/27: Ch 18 Electric Charge and Electric Field</td>
</tr>
<tr>
<td>3</td>
<td>01/30: Ch 19 Electric Potential and Electric Field</td>
<td>02/01: Ch 19 Electric Potential and Electric Field</td>
<td>02/03: Ch 20 Electric Current, Resistance, and Ohm's Law</td>
</tr>
<tr>
<td>4</td>
<td>02/06: Ch 20 Electric Current, Resistance, and Ohm's Law</td>
<td>02/08: Ch 20 Electric Current, Resistance, and Ohm's Law</td>
<td>02/10: Ch 21 Circuits, Bioelectricity, and DC Instrum.</td>
</tr>
<tr>
<td>5</td>
<td>02/13: Ch 21 Circuits, Bioelectricity, and DC Instrum.</td>
<td>02/15: Ch 21 Circuits, Bioelectricity, and DC Instrum.</td>
<td>02/17: REVIEW</td>
</tr>
<tr>
<td>6</td>
<td>02/20: <strong>EXAM 1 (Ch18-21)</strong></td>
<td>02/22: Ch 22 Magnetism</td>
<td>02/24: Ch 22 Magnetism</td>
</tr>
<tr>
<td>7</td>
<td>02/27: Ch 22 Magnetism</td>
<td>03/01: Ch 23 Electromagnetic Induction, AC Circuits</td>
<td>03/03: Ch 23 Electromagnetic Induction, AC Circuits</td>
</tr>
<tr>
<td>8</td>
<td>03/06: Ch 23 Electromagnetic Induction, AC Circuits</td>
<td>03/08: Ch 24 Electromagnetic Waves</td>
<td>03/10: Ch 24 Electromagnetic Waves</td>
</tr>
<tr>
<td>9</td>
<td>03/13-17 SPRING BREAK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>03/20: REVIEW</td>
<td>03/22: <strong>EXAM 2 (Ch22-24)</strong></td>
<td>03/24: Ch 25 Geometric Optics</td>
</tr>
<tr>
<td>11</td>
<td>03/27: Ch 25 Geometric Optics</td>
<td>03/29: Ch 25 Geometric Optics</td>
<td>03/31: Ch 26 Vision and Optical Instruments</td>
</tr>
<tr>
<td>12</td>
<td>04/03: Ch 26 Vision and Optical Instruments</td>
<td>04/05: Ch 26 Vision and Optical Instruments</td>
<td>04/07 Ch 27 Wave Optics</td>
</tr>
<tr>
<td>13</td>
<td>04/10: Ch 27 Wave Optics</td>
<td>04/12: Ch 27 Wave Optics</td>
<td>04/14 Good Friday (NO class)</td>
</tr>
<tr>
<td>14</td>
<td>04/17: REVIEW</td>
<td>04/19: <strong>EXAM 3 (Ch 25-27)</strong></td>
<td>04/21: Ch 28 Special Relativity</td>
</tr>
<tr>
<td>15</td>
<td>04/24: Ch 28 Special Relativity</td>
<td>04/26: Ch 29 Introduction to Quantum Physics</td>
<td>04/28: Ch 29 Introduction to Quantum Physics</td>
</tr>
<tr>
<td>16</td>
<td>05/01: Ch 30 Atomic Physics</td>
<td>05/03: Ch 30 Atomic Physics</td>
<td>05/05: Semester REVIEW</td>
</tr>
</tbody>
</table>

*The instructor reserves the right to make reasonable changes to the syllabus during the course. Any changes will be announced during class and/or posted on Blackboard.

**Comprehensive Final Exam:** May 10, 2017 08:30 – 11:00 a.m. Room: ROB 116