Physics 2334 – University Physics II

Class Schedule: 16 weeks starting Jan 20, 2017
Lecture: Robertson R116 11:10am - 12:00 pm MWF mandatory!
Recitation Session: R118 12:10pm - 1:00pm  F mandatory!

Instructor: Dr. Birgit Mellis
Phone: 713-525-2129
email: mellisb@stthom.edu (please put the course name in the subject line of your emails, e.g. “Uni Phys II”)
Office: Robertson Hall, Room 112

Office Hours:
Mon: 12:00pm-1:00pm
Tue: 9:00am-12:00pm
Wed: 12:00pm-2:00pm
Fri: 1:00pm-2:00pm by appointment
Other times/days: by appointment

Course Description:
Phys 2334 is the second semester of a one year, calculus based introductory course in Physics which covers mechanics, oscillations, waves and fluids, thermodynamics, optics, electromagnetism and modern physics.

Course Objectives:
Students will learn about electromagnetism, optics and modern physics. This includes both conceptual understanding and calculus based problem solving.

Prerequisites
Phys 2333, Math 1432 (Calculus II) or equivalent, or permission by instructor.
(Equivalent meaning that you must already have approved knowledge of the subjects covered in those courses)

Textbook:

University Physics Wolfson, 2nd ed. ! (don’t buy the newest, 3rd edition)

Blackboard:

Blackboard (http://gregory.stthom.edu) will be used to post grades, 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, 713-525-6900
Exams:
To get credit for solved problems you have to show all your work starting with the formula! Units must be carried along during calculations. Only Texas Instruments TI-30X calculators (or similar non-graphing scientific calculators previously approved by instructor) are allowed during an exam or final.

Exam Schedule and Content (tentative)
- Exam 1 – 15 Feb (W) – Ch 20-23
- Exam 2 – 10 Mar (F) – Ch 24-27a
- Exam 3 – 19 Apr (W) – Ch 27b, 28-31
- Final – 15 May (M) 12:00-2:30pm

All chapters covered in lecture will be part of the comprehensive Final!

Grading:
Your final semester grade will be calculated as follows:
- 50% Exam Grade = total of three Exam grades
- 25% Final Grade (If any higher, the Final grade will also replace the lowest Exam grade.)
- 10% Homework
- 10% Quizzes
- 5% Class Attendance and Participation

The letter grade for the course is based on the Grading Scale:
- A: (94-100)% , A-: (93-90)%
- B+: (87-89)% , B (84-86), B- (80-83)%
- C+ (77-79)% , C (74-76)% , C- (70-73)%
- D+ (67-69)% , D (60-66)%
- F (0-59)%

Makeup policy:
No makeup exams will be given. If an exam is missed (and excused), that will be treated as the exam to be dropped in favor of the final. 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 document (doctor’s note e.g.....) why you missed the exam. Use the email and/or phone information above to contact the instructor.
If you miss an exam unexcused you will receive 0 pts for this exam and the grade won’t be replaced by the final.

Homework:
Please keep a notebook with your worked homework problems. Hand in 40 problems (consisting of around 10 exercises/problems from each chapter covered previously) on the day of each exam or the final for your homework grade. Exams will test your ability to solve problems of intermediate difficulty. There are no required problems. Your homework grade will be based on the total number of problems which you attempt to work and will be collected on the day of each exam.

To receive credit you must:
- Show five worked problems each week at the beginning of the recitation session
- hand homework in at the beginning of class before we start on the exam
- show all your work (not just solutions)
- 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, (one problem can go on the front, the next problem on the back of one paper sheet, Conceptual, Thought and Discussion Questions can be answered on the same page)
- put your name on your work

You can often receive credit for a problem even if you do not get the correct answer-- if you show serious effort in tackling the solution. There will be no credit for handing in homework late!
You will find that the value of homework and class participation is MUCH greater than the 15% of your term grade which they are worth together. It affects your exam grades heavily!

**Quizzes:**
Quizzes will be given to assess your understanding of the material we covered previously in class. Typically, they will be given randomly in class or via blackboard whenever we have finished one chapter of the book. The online quizzes must be completed online before you come to the next class.
All scheduled online quizzes will be posted in Blackboard under “Assignments”. So please check blackboard at least once every week to look for new assignments or announcements!

**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 one-point decrease in the final semester numerical grade, or in dropping one homework or quiz score. Conversely, 5% of your total grade is based upon your class attendance and participation.

**Accessibility and Accommodations**
Reasonable accommodations will be made for students with disabilities per the University’s policy. If you need special accommodations, please see the instructor and the Office of Counseling and Disability Services (C&DS) located on the second floor of Crooker Center.

**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.
To be a little bit more specific:
You may not use material in a test, quiz, or exam which is not allowed; turn in someone else’s work in completion of a test, quiz or homework. Remove or copy an exam without the instructor’s permission; plagiarism; copying information from someone else’s test, quiz or any graded homework. Cheating will be punished in accordance with University procedures.

**Some Last Advice….**
- Come to class
- Read, as best you can, textbook chapters before coming to class.
- Complete all assigned homework problems (and then some... physics is about solving problems, not memorizing facts). This will help you to do much better on your quizzes and exams.
- Build study groups with other students for…solving problems, preparing for exams, having fun with physics…. It helps a lot to discuss problems/difficulties with others. In real life, scientists always work in teams, too!

I hope you all have a great semester and enjoy physics!
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<thead>
<tr>
<th>Week of</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>16-Jan</td>
<td>Introduction; Ch20 El. Charge, Force and Field</td>
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<td>23-Jan</td>
<td>Ch20</td>
<td>Ch20</td>
<td>Ch21 Gauss's Law</td>
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<td>30-Jan</td>
<td>Ch21</td>
<td>Ch22 El. Potential</td>
<td>Ch22</td>
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<td>6-Feb</td>
<td>Ch 23 El. Energy &amp; Capacitors</td>
<td>Ch 23</td>
<td>Ch 23</td>
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<td>13-Feb</td>
<td>Ch 24 El. Current</td>
<td><strong>Exam1 (Ch 20-23)</strong></td>
<td>Ch 24</td>
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<td>20-Feb</td>
<td>Ch25 El. Circuits</td>
<td>Ch25</td>
<td>Ch 25</td>
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<td>27-Feb</td>
<td>Ch26 Magnetism: Force and Field</td>
<td>Ch26</td>
<td>Ch 26</td>
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<td>6-Mar</td>
<td>Ch26</td>
<td>Ch27 Electromagnetic Induction</td>
<td><strong>Exam2 (Ch24-27a)</strong></td>
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<td>13-Mar</td>
<td><strong>Spring Break</strong></td>
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<td>20-Mar</td>
<td>Ch27</td>
<td>Ch27</td>
<td>Ch 28 AC Circuits</td>
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<td>27-Mar</td>
<td>Ch28</td>
<td>Ch 29 Maxwell’s Equations</td>
<td>Ch29</td>
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<td>3-Apr</td>
<td>Ch30 Reflection &amp; Refraction</td>
<td>Ch 30</td>
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<td>10-Apr</td>
<td>Ch31 Images &amp; Opt.Instruments</td>
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<td>17-Apr</td>
<td>Ch31</td>
<td><strong>Exam3 (Ch 27b, 28-31)</strong></td>
<td>Ch 32 Interference &amp; Diffraction</td>
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<td>24-Apr</td>
<td>Ch32</td>
<td>Ch 32</td>
<td>Ch 33 Relativity Theory</td>
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<td>1-May</td>
<td>Ch. 33</td>
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The instructor reserves the right to make reasonable changes to the syllabus during the course. In this event, any necessary changes will be posted online and/or announced during class.