

## **COURSE SYLLABUS** Physics 3306-001, Spring 2009

“Electricity and Magnetism II”, TR 2:00-3:20 PM, Science Room 010

**Instructor:** Soyeun Park, Assistant Professor of Physics

**Office Hours:** TR, 3:20-4:20 pm, Science Room 107, Tel. 742-2264,  
e-mail: soyeun.park@ttu.edu

**Course outline and purpose:** This is the second semester of a two-semester course on classical electrodynamics at the junior-senior level. The course is intended for physics and engineering physics majors. Other students with the appropriate background in physics and mathematics are welcome as well. The topics are Maxwell’s equations, electromagnetic waves, radiation and relativity, and applications in electrodynamics. For detailed topics, see the textbook, chapters 7-12, and the calendar.

**Textbook:** “Introduction to Electrodynamics”, David J. Griffiths, 3<sup>rd</sup> ed., Prentice Hall

**Attendance required**, except for excused absences given to the instructor in by e-mail or in person. For each recorded unexcused absence, -1% taken off the course total.

**Grades:** Quiz 20% (the lowest quiz score will be dropped)  
Three examinations 25% each (the lowest exam score will be dropped)  
Final examination 30%  
100-A-86-B-72-C-58-D-44-F-0

**The examinations** are closed books. They cover the lecture notes, homework, lecture demonstrations, and textbook.

Bring a simple calculator without physics contents and a ruler to the examinations.  
A 3” x 5” note card will be allowed.

**No make-up examinations** in general. In a serious emergency, please contact the instructor as soon as possible with proper documentation to find out how the missed grade will be determined.

**Homework** will be assigned regularly. You don’t need to submit your homework. The quizzes will reflect how well you do on the homework. In order to get a good score on the quiz, you must do the homework by yourself. It is unethical and poor preparation for the examinations to obtain homework answers from other sources or collaborations.

**Quizzes** will be given related with homework assignments. Anyone does the homework by him/herself can easily solve the quizzes.

**A must:** Spend at least 12 hours outside of class each week on this course for a high probability of a grade C or better. This course probably is more challenging than most courses you have taken. Spend about half of the time on your own lecture notes and the textbook, the other half on the homework. Before each class, review the new material in the textbook (see calendar).

**Dates:** See the attached **Calendar** for chapter coverage, examination dates, and homework dates.

**Withdrawal policy:** Automatic “W” if you withdraw from the course by the posted deadline. Thereafter, it will be a “W” if your course average is a “D” or better at the time of withdrawal; otherwise “WF”. **You must withdraw yourself from the class. The instructor does not do that.** If you consider withdrawing from the course, please see me first to discuss the grade.

**Disability:** Any student who because of a disabling condition may require special arrangements in order to meet course requirements should contact the instructor as soon as possible so that the necessary accommodations can be made. The student must present appropriate verification from Access Tech. No requirement exists that accommodations be made prior to completion of the approved university procedure.

**Academic honesty** is assumed. Violations will be dealt with appropriately.

**Course objectives and expected learning outcomes:**

Know and apply the fundamentals of classical electrodynamics based on Maxwell’s equations.  
Be able to use these principles in other courses and also everyday life.  
Raise the level of higher education in the United States.

**Methods for assessing the expected learning outcomes:**

1. Examinations and grades.
2. In-class polling and responses from students.
3. Class discussions to assess assimilation of knowledge.
4. Feedback from students about usefulness of physics after leaving TTU.

# Calendar (approximate) for PHY3306-001, Spring 2009

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
1/5	1/6	1/7	1/8	1/9
			Ch7	
<b>1/12</b>	<b>1/13</b>	<b>1/14</b>	<b>1/15</b>	<b>1/16</b>
	Ch7		Ch7	
<b>1/19</b>	<b>1/20</b>	<b>1/21</b>	<b>1/22</b>	<b>1/23</b>
Holiday	Ch7		Ch8	
			<b>Quiz#1</b>	
<b>1/26</b>	<b>1/27</b>	<b>1/28</b>	<b>1/29</b>	<b>1/30</b>
	Ch8		Ch8	
<b>2/2</b>	<b>2/3</b>	<b>2/4</b>	<b>2/5</b>	<b>2/6</b>
	Ch9		<b>Exam 1</b>	
	<b>Quiz#2</b>			
<b>2/9</b>	<b>2/10</b>	<b>2/11</b>	<b>2/12</b>	<b>2/13</b>
	Ch9		Ch9	
<b>2/16</b>	<b>2/17</b>	<b>2/18</b>	<b>2/19</b>	<b>2/20</b>
	Ch9		Ch9	
<b>2/23</b>	<b>2/24</b>	<b>2/25</b>	<b>2/26</b>	<b>2/27</b>
	Ch9		Ch9	
<b>3/2</b>	<b>3/3</b>	<b>3/4</b>	<b>3/5</b>	<b>3/6</b>
	Ch10		<b>Exam 2</b>	
	<b>Quiz#3</b>			
<b>3/9</b>	<b>3/10</b>	<b>3/11</b>	<b>3/12</b>	<b>3/13</b>
	Ch10		Ch10	
<b>3/16</b>	<b>3/17</b>	<b>3/18</b>	<b>3/19</b>	<b>3/20</b>
←		Spring break		→
<b>3/23</b>	<b>3/24</b>	<b>3/25</b>	<b>3/26</b>	<b>3/27</b>
	Ch10		Ch11	
			<b>Quiz#4</b>	
<b>3/30</b>	<b>3/31</b>	<b>4/1</b>	<b>4/2</b>	<b>4/3</b>
	Ch11		Ch11	
<b>4/6</b>	<b>4/7</b>	<b>4/8</b>	<b>4/9</b>	<b>4/10</b>
	Ch11		Ch12	
			<b>Quiz#5</b>	
<b>4/13</b>	<b>4/14</b>	<b>4/15</b>	<b>4/16</b>	<b>4/17</b>
	<b>Exam 3</b>		Ch12	
<b>4/20</b>	<b>4/21</b>	<b>4/22</b>	<b>4/23</b>	<b>4/24</b>
	Ch12		Ch12	
<b>4/27</b>	<b>4/28</b>	<b>4/29</b>	<b>4/30</b>	<b>5/1</b>
	Ch12			<b>Final exam</b>
	<b>Quiz#6</b>			<b>1:30-4:00 PM</b>