Physics 440 – Electromagnetism I

Spring 2009 Semester

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 440</td>
<td>12:45 pm - 2:05 pm</td>
<td>Tuesday, Thursday</td>
<td>Dr. Ivan Novikov</td>
</tr>
</tbody>
</table>

Instructor Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Office</th>
<th>Electronic Mail</th>
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<tbody>
<tr>
<td>Dr. Ivan Novikov</td>
<td>TCCW 218</td>
<td><a href="mailto:Ivan.Novikov@wku.edu">Ivan.Novikov@wku.edu</a></td>
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Catalog Description.

A study of classical electricity and magnetism with emphasis on fields, potentials, conductors, dielectrics, steady currents and radiation.

Co-requisites.

Students enrolled in Physics 440 must be enrolled in or have already satisfactorily completed Physics 350 – Classical Mechanics, Math 327 – Multivariable Calculus and Math 331 – Differential Equations.

Textbook

Title: Introduction to Electrodynamics
Author: David J. Griffiths
Hardcover: 576 pages
Publisher: Benjamin Cummings; 3 edition (January 9, 1999)
Following books is recommended:

Title: Div, Grad, Curl, and All That: An Informal Text on Vector Calculus  
Author: H. M. Schey  
Paperback: 176 pages  
Publisher: W. W. Norton; 4th edition (January 2005)  
Language: English  
ISBN-10: 0393925161  

Additional Reference Material
In addition to the textbook for the course, you should consider obtaining some additional mathematical reference materials. These books will prove useful not only for this course, but for subsequent undergraduate and/or graduate courses in physics. Some math texts that I have found particularly helpful include:


Grading Policy

Your grade for Physics 440 will be based on your performance on the homework assignments and examinations according to the usual distribution as shown in Table 1.

<table>
<thead>
<tr>
<th>Table 1</th>
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<tbody>
<tr>
<td>Score</td>
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<tr>
<td>90 – 100</td>
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<tr>
<td>80 – 89</td>
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<td>70 – 79</td>
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<tr>
<td>60 – 69</td>
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<tr>
<td>&lt; 59</td>
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The weights (in percent) that will be applied to the homework and exams are shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2</th>
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<tbody>
<tr>
<td>Grade Component</td>
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<tr>
<td>Homework</td>
</tr>
<tr>
<td>Exam 1</td>
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<tr>
<td>Exam 2</td>
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<tr>
<td>Exam 3</td>
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<tr>
<td>Final Exam</td>
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</table>

Homework

- Homework sets will be assigned on a routine basis.
- To be eligible for credit, homework must be submitted at the beginning of class on the due date.
- Homework sets submitted past this deadline, but prior to the next beginning of class following the due date, will be considered late and the grade will be reduced by 50%. Homework sets will not be accepted following the 50% credit deadline. There will be no exceptions to this policy.
- Homework papers should be neat, clean, and easy to read. The reasoning processes used in solving each problem should be fully explained. I can only infer your train of thought from what you have written on the paper. When grading your homework I will look for evidence that your results were obtained by an orderly and logical process. Homework papers, which do not meet these criteria, will be returned ungraded and can be submitted again for up to 50% credit.
- It is permissible for students to discuss homework problems with one another. However, such discussions should involve contributions from each student participating. Mere copying of another person's work is considered cheating and will result in a grade of zero for all involved if detected.
Exams

- Three exams will be given during the semester. The exams, which will consist of problems and derivations, will be based on material from the lectures, from assigned readings, and from homework problems.
- If you are unable to take an exam you may request permission from the instructor before the regularly-scheduled exam period to take a makeup exam. However, a serious reason is required to warrant the scheduling of a makeup exam.
- The final examination will be comprehensive and will be given on the day and time regularly scheduled for this course.

Attendance

Regular and punctual attendance is expected of everyone during every class meeting.

Drop/Audit Policies

If you choose to not complete the course for a grade then your only option is to drop the course and receive a grade of W by the University deadline for dropping a course. If you choose to drop the course you must also drop the class since they are co-requisites.

Disability Accommodations

Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services, DUC A201. The OFSDS telephone number is (270) 745-5004 V/TDD. Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

Classroom Policies

- Food and drinks are NOT allowed in the classroom.
- Cell phones, pagers, and similar devices must be turned off and stored away during class time.
- The laptop computers in the classroom are for specific classroom activities only.
  - Do not install or modify any software on the laptop computers.
  - Do not use the computers to check email during class time.
  - Do not use the computers to instant message or chat with anyone ever.
  - Do not submit or view homework assignments during class time.
  - Do not browse the Internet during class time unless it is part of a class activity.