This page and its links contain all of the general information you need for the course, and they will be updated frequently. Please check this page regularly, and make sure you hit your browser's `Reload' button so you get the latest version.

Overview, and Expected Learning Outcome

This course is designed to teach the basic notions and simple applications of classical electrodynamics. Successful completion of the course will result in knowledge of Maxwell's equations and their static and dynamic solutions.

Time and Location:

- MW 4:00 - 5:20 in 318 WIL
- Speaking of time, here is the official time from NIST:

Lecture Notes :

- Typeset notes based on an earlier version of this course can be found [here](#).
- A scanned version of my current notes will be posted later.
  Please keep in mind, however, that anybody else's lecture notes, including the lecturer's, are next to useless unless you have your own set taken by YOU. This goes for textbooks as well. My notes are only meant as a record of my blackboard art to check against.

Instructor:

- [Dietrich Belitz](#)
• email: <email>
• phone: 6-4738
• office: 459 Willamette
• office hours:
  ○ real: I'll try to keep an open office policy. Catch me after class if possible; otherwise, just stop by my office. If I'm *really* busy I'll kick you out, but usually I'll be able to accommodate you if I'm in. If your schedule and mine turn out to never overlap, send email and make an appointment.
  ○ virtual: anytime. My e-mail response time is rarely longer than a few hours, and usually it is much shorter.

**TA:**

• George DeCoster
• email: gjd at you-know-where
• office hours: M 10-11 in 454 WIL

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**Textbooks and other helpful material:**

• Recommended texts:
  ○ J. Schwinger et al., *Classical Electrodynamics*

• Other useful books:
  ○ M. Abramowitz and I.A. Stegun, *Handbook of Mathematical Functions*
  ○ C.M. Bender and S.A. Orszag, *Advanced Mathematical Methods for Scientists and Engineers*
  ○ R. Courant and D. Hilbert, *Methods of Mathematical Physics*
  ○ P. Dennery and A. Krzywicki, *Mathematics for Physicists*
  ○ J.D. Jackson, *Classical Electrodynamics*
  ○ M.J. Lighthill, *Introduction to Fourier Analysis and Generalized Functions*
  ○ F.E. Low, *Classical Field Theory*
  ○ P.M. Morse and H. Feshbach, *Methods of Theoretical Physics*
  ○ V.I. Smirnov, *A Course of Higher Mathematics*
  ○ D.E Soper, *Classical Field Theory*

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**Exams and Grading**

Midterm 622: Wednesday, Feb 24 in class
Final 622: Thursday, Mar 17, 2:45 - 4:45, 318 WIL

Homework will count for 20% of the grade. Your grade will thus be mostly based on the exams,
but it will be next to impossible to do well on the exams unless you have spent a lot of time and effort on the homework problems. If your performance on the final is better than on the midterm, the midterm will not count and the final will count 80%. If your performance on the midterm is better than on the final, the midterm will count for 30% of the grade and the final for 50%.

**Homework:**

The homework problems are an integral part of the course, and spending substantial time on the homework will be essential for understanding the material discussed in class. One can learn very little physics by just reading a book, or listening to lectures, so make sure you allow adequate time for doing the homework problems. Also, doing well on the exam will be next to impossible without a thorough understanding of the homework problems.

*Note: Of course I know that the solutions to my homework problems can be found on the web. But hey, this is graduate school; if you want to kid yourself, you right ahead.*

Homework problems will be assigned weekly on Wednesday, and will be due the following Wednesday in class.

Problems will be posted on this page in pdf format. Homework will be graded and account for 20% of the grade. I will post scans of my solutions, also in pdf format.

Collaborating on the homework is okay, and even encouraged. You should make sure, however, that you really understand the material yourself rather than just tagging along. Remember, your grade will be based mostly on the exams.

**Problem Sets**

- **Problem Assignment #1:** 01/06/2016, past due, [Solutions](#)
- **Problem Assignment #2:** 01/13/2016, past due, [Solutions](#)
- **Problem Assignment #3:** 01/20/2016, past due, [Solutions](#)
- **Problem Assignment #4:** 01/27/2016, past due, [Solutions](#)
- **Problem Assignment #5:** 02/03/2015, past due, [Solutions](#)
- **Problem Assignment #6:** 02/10/2016, past due, [Solutions](#)
- **Problem Assignment #7 & 8:** 02/17/2014, past due, [Solutions](#)
- **Problem Assignment #9:** 03/02/2016, past due, [Solutions](#)
- **Problem Assignment #10:** 03/31/2016, due 04/06/2016

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last update 3/12/2016

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