

PHY350 Electricity and Magnetism

Gustavus Adolphus College Spring 2008

Instructor: Dr. Thomas Huber

Office: Olin Hall 209

Phone/Voicemail: 933-7036

Email: huber@gustavus.edu

Textbook: *Electromagnetic Fields* (2nd Edition), by Roald K. Wangsness

Course Policy and Evaluation:

1. **Class Meetings and Reading Assignments:** The class will meet five days a week. Usually, four periods per week will be used for lecture, recitation or homework review. Class periods on the fifth day will be used for group problem-solving sessions or for exams. When reading assignments are made for a class session, the **reading is expected to be completed before coming to the class.**
2. **Homework:** Written homework problems will be assigned each week. Problems will be graded and returned to the student. Late homework *may* be accepted at the discretion of the instructor, with possible loss of points.
3. **Group and Discussion Problems:** Roughly once per week, there will be group problems and/or discussion problems. For discussion problems, a collection of problems will be assigned, and students will be asked to present the solutions to the class.
4. **Attendance:** Regular attendance at all class meetings is expected. Students will be held responsible for informing themselves of all announcements/assignments made in class.
5. **Exams:** There will be four one-hour exams and a two-hour final exam. The date for each of the exams is given below. Students must arrange **in advance** to take an exam at other than the scheduled time, and may do so **only** for a valid health or school-related reason.
6. **Academic Honesty:** Having signed and agreed to abide by the College's Honor Code, students thereby pledge that, in all academic exercises, examinations, papers, and reports, they shall submit their own work. Footnotes, or some other acceptable form of citation must accompany any use of another's words or ideas. In the context of this course, students are expected to collaborate and to discuss their out-of-class assignments. However, submitting under one's own name work that is merely copied from another is a violation of the Honor Code. (The full text of the Gustavus Academic Honor Code Policy may be found in the Gustavus Academic Bulletin).
7. **Incompletes :** A grade of incomplete will only be given for work not completed due to circumstances beyond the control of the student (**This is the college policy**).

8. Evaluation :	Homework	20%
	Problem Discussions	5%
	Hour Exams (four exams)	50%
	Final Exam	25%

Grades will be assigned using the following scale as a guide

94-100	A	74-78	C+
90-94	A-	70-74	C
86-90	B+	66-70	C-
82-86	B	62-66	D+
78-82	B-	58-62	D
		0-58	F

Assignment of the final letter grades will also take into account other factors including the instructor's subjective evaluation of the student's attendance, initiative, evidence of improvement, and the quality of independent work.

9. **Exam Dates:**

Wednesday, March 5, 2008

Wednesday, April 2, 2008

Wednesday, April 23, 2008

Wednesday, May 14, 2008

Final Exam: Friday, May 23, 2008 at 8:00 AM

10. **Course Coverage:** We will cover the following chapters in more or less detail

a. **Math Background**

Chapter 1

b. **Electrostatics**

Chapters 2-11

c. **Currents and Magnetic Fields**

Chapters 12-20

d. **Maxwell's Equations**

Chapters 21-22

e. **Electromagnetic Waves**

Chapters 24-25

f. **Special Relativity** (if time permits)

Chapter 29