

# E&M PHY350 - Spring 2020

Instructor: Paul Saulnier

Office: OHS 208 (507) 933-6123

Office Hours: M-F 9:00-9:50, other times by arrangement.

Text: Electromagnetic Fields, (2nd Edition), Roald K. Wangsness

Recommended Reference: Mathematical Handbook of Formulas and Tables, by Murray R. Spiegel, Schaum's Outline Series. You won't find a better one for 3x the cost!

Classes: MTWRF 12:30-1:20 in OHS 216. The class will meet five days a week.

Attendance: Regular class attendance is expected. If you miss a class for any reason you are responsible for the material covered during the class including any assignments. Skip at your own risk! Excessive absences may, at my discretion, cause points to be deducted from your FINAL grade.

Homework: Homework problems will be assigned regularly and are due a day or two after we finish the chapter. Late homework will be accepted at the discretion of the instructor, with possible loss of points (valid excuse required). Homework should be your own work, however, some collaboration is expected.

Makeup: Missed exams may be made up at the discretion of the instructor, with prior notification only.

Final Exam: Monday, May 25th at 8:00-10:00 a.m. in OHS 216.

Coverage: We will be covering the following chapters in more or less detail.

Chapter 1-5  
Exam I  
Chapter 6-10  
Exam II  
Chapter 11-16  
Exam III  
Chapter 17-21  
Exam IV  
Chapter 24, 25, 29 (if time permits)  
Final Exam (comprehensive)

<u>Evaluation:</u>	There will be four exams	$4 \times 15\%$
	One final exam	20%
	<b>Homework</b>	<b>15%</b>
	Problem Discussions / class participation	5%

Final course 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

Please note that these ranges are only guidelines. Final grades will also take into account the instructor's evaluation of the student's attendance and evidence of improvement.

Instructor's Note: My job in this class is to help you learn E&M. I would encourage you to ask questions about the material during class and speak with me outside of class to discuss any

course related concerns. Don't wait until the end of the semester to inform me of your concerns - by then it is too late. Your opinion is important to me.

Academic Honesty: By writing your name on any graded assignment for this class, you are attesting to the fact that it has been completed in accord with the highest standards of academic honesty. I take this responsibility seriously and I expect that you will also. If you have any doubt about what constitutes appropriate use of someone else's work, please ask.

Disability Services:

Gustavus Adolphus College is committed to ensuring equitable and inclusive learning environments for all students. If you have a disability and anticipate or experience barriers to equal access, please speak with the accessibility resources staff about your needs. A disability may include mental health, attentional, learning, chronic health, sensory, physical, and/or short-term conditions. When appropriate, staff will guide students and professors in making accommodations to ensure equal access. Accommodations cannot be made retroactively; therefore, to maximize your academic success at Gustavus, please contact them as early as possible. Accessibility resources staff are located in the Center for Academic Resources and Enhancement (<https://gustavus.edu/care/accessibility/>) (x7227). Accessibility Resources Coordinator, Katy Clay, ([clayk@gustavus.edu](mailto:clayk@gustavus.edu)), can provide further information.

## **Problem Presentation Tips**

1. Be completely prepared.
2. Work problem using blackboard panels - do NOT jump all over the board.
3. Do a step then step away and look at audience.
4. Ask for questions.
5. Use colored chalk.
6. Pause to let people catch up after a significant step.
7. Make sure people are done copying before you erase.
8. Explain, don't just copy your notes - not only discuss what you are doing but why you are doing it.
9. Box important results.
10. Write problem statement so that people have it in their notes. At least reference the textbook problem number.
11. Erase board when done.
12. Use vector symbols where appropriate.
13. Discuss physical significance of final result.
14. Don't assume that your problem is so easy that everyone understands it so that you can rush through it.
15. Don't be afraid to pause and let the audience catch up / think about what you are doing.