

Instructor: Dr. Jessica Kintner
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Text: **Introduction to Electrodynamics** (4th Edition) by David Griffiths.

Meetings: Lecture T Th 11:30-1:05

Web page: <http://physics.stmarys-ca.edu/>

Forum: <http://www.piazza.com/>

Office Hours: TBD, and by appointment

- **Course Description:** We will cover electrical and magnetic concepts using static and dynamic field concepts. Maxwell's equations will be emphasized. Topics include: Electrostatics, magnetostatics, and electromagnetic waves.
- **Course Goals:** To learn, at an intermediate level, electricity and magnetism; To develop stronger problem solving and critical thinking skills; To gain confidence in using previously learned material.
- **Homework:** Problems will be assigned during class each day. These problems will include traditional homework problems, example problems from the text, and filling in missing steps from derivations in the text. We will present and discuss some (or all) of these problems the very next class period, so it is very important that you attempt them in between each class meeting. Some days I will also add new problems based on the homework. (See the next section on In Class Work.)

Since homework with in class work is a fairly large percentage of your grade in this class, it is important how you work. I encourage you to *discuss* problems with each other, but write up your own solutions individually. Direct copying is prohibited and will be considered a violation of the Honor Code. You should also cite any sources and give credit to anyone you worked with. Exceptions to this are only work done by me, or perhaps in my office, or if we have all discussed the problem in class. Of course, if you use another source, you should credit that as well (just as if you were writing a paper.) You will not lose any points for this! You will, on the other hand, get in big trouble for plagiarism.

Doing the homework is the best way to learn the material. Please take it seriously and make every effort to do it on time.

Although I would like to put all the homework problems on the board, that probably won't happen: some will be too long, and doing all of them will take too much time. So I will collect and grade some problems.

I am not planning to make Piazza a required part of the class, but I am prepared to possibly give credit for using it well—both asking good questions and answering them. So if we do like using that resource, it is another possible way for you to participate in the course.

- **In Class Work:** When you come into class, you should be prepared to put homework problems on the board and/or ask questions about any problems you got stuck on or are confused about. You also might ask questions about the last lecture or sections of the book you've been reading.

Studies show that lecture is the worst way for students to learn physics. Believe it or not, even spending the hour doing homework problems is more effective than pure lecture. We will use a variety of activities in class such as board work, small group work, and problem solving. Some of the problems we do in class will be homework problems, and some will be “new” to the class that day. For those, I will typically have you work in small groups (of two if at all possible) at the board while I come around and discuss them with you. Some days we might use clickers.

And some days, I will do lectures with every attempt to keep you involved.

- **Exams:** There will be two one-hour exams and a final. The final exam will be two hours long, and it will be cumulative. The nature of the course is such that each exam will depend to some extent on the material before. The two hour-long exams will be: Thursday, September 27 and Thursday, November 8.

Final Exam: Tuesday, Dec 4, 10:30am-12:30pm

- **Attendance:** Although attendance will not be taken each day, it is strongly recommended that you attend lecture. The text for this class is challenging. And your In Class grade will be affected by absences. You will be responsible for any material presented in class.

Exams cannot be made up without an approved excuse. Approved excuses are such things as illness and family or personal emergencies. If you must miss an exam, you must contact me prior to the exam. Each student is responsible for all assignments, etc, which are given during lecture.

- **Grading:** The *approximate* weighting for the course is shown below.

Homework/in class work	40%
Exams	30%
Final Exam	30%