

**PHYSICS 3420: Electricity and Magnetism I****Syllabus**

January 14, 2019

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Lecture Sessions:	MWF 10:00-10:50 am	Rm. 205, Physics Building
Instructor:	Xiaochao Zheng	email: xz5y@virginia.edu
Office Hours:	W 2-4pm, Th 1-3pm walk-in welcome	Office 135, Physics Building

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Teaching Assistant:	Saikat Bera	email: sb5xa@virginia.edu
Office Hours:	W 11am-1pm Th 11am-1pm, 5pm-6:30pm	Rm.220, Physics Building

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Grader:	Ningshun Chen	email: nc2bx@virginia.edu
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**Course Organization**

The course comprises pre-lecture reading assignments, lecture sessions with quizzes, weekly homework assignments, two in-class midterm exams, and one final exam.

During each lecture, we will use 15 minutes to summarize important concepts, theorems, and such. Then we will spend 15 minutes on examples and derivations. The last 20 minutes of each lecture will be reserved for the quiz. As such, one must complete the reading assignment prior to each lecture to be able to understand what's going on. Pre-lecture reading assignment will be posted every Wednesday as part of the homework assignment file on Collab (under "Resources").

The in-lecture quiz serves as an active learning component. Students will be working in groups of 3-4 and hand in individual solutions by the end of the lecture. The lowest score of each group will be assigned to everyone in the same group. Group assignments will be arranged by the instructor and will be rotated every two weeks.

Then, students will continue studying the material and complete homework assignments. There will be about 2 problems per lecture (6 per week) in average.

**Textbook and Other Study Material**

The **textbook** is "Introduction to Electrodynamics", by David J. Griffiths, 4th edition (ISBN-13: 978-1108420419 ISBN-10: 1108420419; Cambridge) is recommended but 3rd edition (ISBN-13: 978-0138053260 ISBN-10: 013805326X; Prentice Hall) will work just fine.

**Lecture notes** (if any) will be posted on Collab after each lecture.

**Quiz and homework solutions** will be provided in hard-copies only.

**Exams**

There will be two midterm exams during class hours and one final exam. The lecture prior to each exam will be devoted to summarizing the material and there will be no quiz for that particular lecture. The format of the exam (open- or close-book) is TBD at this moment.

### **Grading**

The final grade will be determined as: 30% from in-lecture quizzes and homework assignments (with 1/3 from quizzes and 2/3 from homeworks); 15% each from two in-class midterm exams; and 40% from one final Exam.

### **Class Calendar**

The course calendar along with important dates will be provided in a separate document. The two midterms will be held on Friday Feb. 22nd and Friday April 5th. The final exam will be held from 9am to noon on Saturday May 4th (consider it a good sign!). Please inform the instructor as soon as possible if you have pre-arranged travel plans on exam dates.