

# Physics 201 - Section 04

## Introduction to Electricity and Magnetism Fall Semester 2015

- Room/Time:* Seaver Hall 101 – TR 1:00 - 2:30 pm (lectures)  
Seaver Hall 117/119 – T 4:20 - 5:50 pm (lab sections)
- Instructor:* Dr. Gabriele Varieschi  
*Office:* Seaver Hall - 110  
*Phone:* (310) 338-7632  
*E-mail:* [gvarieschi@lmu.edu](mailto:gvarieschi@lmu.edu)  
*Office hours:* MW 10:00-11:30 am, and by appointment.  
*Web page:* <http://myweb.lmu.edu/gvarieschi/physics.html>
- Text:* Serway & Jewett – Physics for Scientists and Engineers, Vol. 2 (or two volumes together ISBN-13: 978-1-133-94727-1) - Brooks/Cole/Cengage – recommended edition: **9<sup>th</sup> edition** (other editions can also be used, but homework assignments will be based on 9<sup>th</sup> edition).
- Objectives and Topics:* From Chapter 23 to Chapter 31 (tentatively). Electrostatics. Current, resistance and D.C. circuits. Magnetism. Induced electromotive force. Electric and magnetic properties of matter. Maxwell's equations. Laboratory experiments pertaining to electricity and magnetism. Calculus based course for engineers and scientists. Prerequisites: Physics 101- Introduction to Mechanics, Math 132 – Calculus II (or concurrent enrollment).
- Learning Outcomes:* Understand the phenomenology of electricity and magnetism. Understand the concept of a classical field: electric and magnetic. Be able to solve problems involving DC circuits of increasing complexity and other e.m. problems. Understand the theoretical framework provided by Maxwell's equations. Understand the practical applications of Maxwell's equations. This course serves as a prerequisite for PHYS 301.
- Tests:* There will be **three tests** during the semester. **They will all count toward your final grade, so please try not to miss any of them.** There will be **no make-up tests** given. Tests are closed-book, but you may bring in a sheet of equations.
- Test Dates:* TBA
- Final Exam:* **Thursday, Dec. 17, 11am-1pm.**  
The final exam is cumulative and is equivalent to 2 tests.
- Homework:* Weekly homework will be assigned and graded (in part – one or two problems per assignment). Solutions will be partially discussed in class and posted online. Homework assignments are due at the beginning of the lecture, on the due date. Late homework will receive partial credit.
- Laboratory:* The laboratory is an integral part of this course. The experiments will complement the topics of the lectures. The laboratory will count for 15% of your final grade. Missing 2 or more lab sessions will result in a failing grade for the course. See lab schedule for detailed information.

**DOWNLOAD LAB MATERIALS AT:**  
<http://myweb.lmu.edu/gvarieschi/physics.html>

|                 |            |      |
|-----------------|------------|------|
| <i>Grading:</i> | Laboratory | 15 % |
|                 | Homework   | 10 % |
|                 | Test 1     | 15 % |
|                 | Test 2     | 15 % |
|                 | Test 3     | 15 % |
|                 | Final Exam | 30 % |

*Test Grading (approx.):* <50%=F; 50-54%=D; 55-69%=C range; 70-84=B range; >85=A range.

*Academic Honesty:* Academic dishonesty will be treated as an extremely serious matter, with serious consequences that can range from receiving no credit for assignments/tests to expulsion. It is never permissible to turn in any work that has been copied from another student or copied from a source without properly acknowledging the source. It is your responsibility to make sure that your work meets the standard of academic honesty set forth in the "LMU Honor Code and Process" in the LMU University Bulletin.

*Syllabus changes:* If necessary, this syllabus and its contents are subject to revision; students are responsible for any changes or modifications announced in class.

Have a good semester. Good luck !