

SPRING SEMESTER, 2004

Syllabus for PHYSICS 402: Electromagnetic Theory II and PHYSICS 503: Selected Topics, Electromagnetic Theory II

Lecture time/place: Tuesdays and Thursdays, 9:30-10:45 a.m., Room 126 Lewis Hall

Professor: Dr. Thomas Marshall

Professor's Office/phone number: Room 108 Lewis, 915-5325

Professor's E-mail address: marshall@olemiss.edu

Office Hours: Tuesdays and Thursdays: 9:00-9:25 a.m. in my office. You may also schedule a meeting for other times.

Text: *Electromagnetic Fields*, 2nd edition, by Roald K. Wangsness
READ THE BOOK!!

Goals: In this course we cover the second half of undergraduate electromagnetic theory. The course will begin with Maxwell's equations and conservation laws and will explore applications of these concepts, including electromagnetic waves and electromagnetic radiation due to accelerated charges. As in most physics classes, critical thinking, analytical reasoning, and problem solving skills will be emphasized. These abilities are crucial in physics (and can be carried over into many other fields or endeavors).

Grading Scale: A's: 90-100%, B's: 80-89%, C's: 70-79%, etc.

Grades will be based on homework, tests, and the final exam:

Homework	30 %
Two tests	20 % each
Final exam	<u>30 %</u>
	100 %

The graduate students (taking Phys 503) will be asked to do additional homework problems and/or assignments, as well as additional or different questions on tests and on the final exam.

Homework is assigned weekly (approximately) and is due one week after being assigned. (E.g., homework assigned on a Thursday is due at the beginning of class on the following Thursday.)

Homework Rules:

1. Homework is due at the **beginning** of class on the due date.
2. Homework paper should be 8.5 x 11 inches with no torn or tattered edges.
Homework papers should be stapled.
3. Show all your work; the answer alone is not worth anything. Homework problems must include enough English to be understandable.
4. Homework answers should have units and a reasonable number of significant digits.

Class attendance is not required, but is strongly encouraged, since everything you need to know in the class will be discussed in class. Arriving late to class or leaving early distracts everyone (me especially). Both are rude, so please avoid them. If you are taken ill during class, feel free to leave.