

Syllabus

Physics 622

Spring 2004

This is an advanced-level course on electromagnetism.

The main points of this course are

- **acquiring the calculational skills necessary to solve complicated problems in E&M (which are used in other branches of physics as well)**
- **acquiring a firm and deep knowledge of electromagnetic phenomena and their description through Maxwell's equations,**
- **understanding the hidden consequences and applications of Maxwell equations. The course requires a major effort from the students to acquire these skills.**

Lecture

Monday-Wednesday-Friday 12:00-12:50, Lewis 126.

Instructor

Dr. Tibor Torma, Department of Physics and Astronomy,
Lewis 208, 915-5627, kakukk@phy.olemiss.edu

Office Hours

Students should be continuously in touch with the instructor. They are expected to call immediately when they experience difficulties in solving homework problems or studying in general. Individual help is as much part of this course as lectures.

Textbook

J. D. Jackson, *Electrodynamics*, ed. 3.

Lectures: Students are expected to attend and make an effort to actively participate.

Reading assignments: Occasionally, reading assignment may be given when a particular subject is easy enough to learn from simple reading.

Homework: There will be a large amount of homework assigned in this class. Students are expected to keep up with deadlines and in case of any obstacle immediately work with the instructor to catch up. Most of the homework will be complicated calculations, but some memorization and some re-derivations will also be assigned. The latter will also form part of the final exam.

Tests: One final test will be given on **May 5** (Wednesday) 4:00 - 7:00. It will involve both calculations and conceptual questions.

Students with disabilities: All reasonable measures will be taken to accommodate any special needs. Inform the instructor in advance of any such need during lecture, discussion, laboratory or tests. Affected students are responsible for requesting special accommodation in time.

Grading: The grades are determined by the weighted average of the homework (75%) and the final test (25%). It is expected that any student who does all the homework, attends all the classes, and studies for the final, should achieve a grade A or B.