

BOĞAZİÇİ UNIVERSITY - DEPARTMENT of PHYSICS

PHYS 201 - Physics III (Electricity and Magnetism) 4 Credits

Sections and Instructors:

Phys201.05: TT12 WW12 ThTh12, KB125, Hakan Erkol hakan.erkol@bogazici.edu.tr

Phys201.06: TT34 WW34 ThTh34, KB125, Hakan Erkol hakan.erkol@bogazici.edu.tr

Contents: Charge and matter, the electric field, Gauss law, electrostatic potential, capacitance, current and resistance, electromotive force and circuits, the magnetic field, Ampère's law, Faraday's law, inductance.

Prerequisites: Phys 101 (PHYSICS I) or Phys 121 (INTRODUCTORY MECHANICS & THERMODYNAMICS).

Suggested Textbooks:

1) University Physics with modern physics by Young & Freedman 15 th edition

2) Physics for Scientists and Engineers, 9th Ed., by Jewett & Serway. (Chapters 23 to 34 will be covered) Other Resources will be placed in the reserve section of the library.

Textbook for the Lab: Physics 3 Experiments, by E. Gülmez and Z. Kaplan

Laboratory Weekly laboratory sessions. There will be a laboratory exam at the end.

Attendance: Students are expected to come to class regularly and on time although it is not mandatory. They should be prepared to discuss the textbook material and to have worked on the suggested problems.

Exams: **There will be one midterm exam and one final exam.** All exams will be closed book/closed notes. Calculators are not allowed.

Students with a midterm grade below 8 or laboratory grade below 10 cannot take the final exam!

Make-up exams: **There will be no make-up exam (both for midterm and final)** during the summer term, due to time constraints. Thus, we strongly recommend you to be present for the exam, unless it is absolutely impossible.

Grading will be based on the sum of midterm (35%), one 2-hour final exam (45%) and laboratory grade (20%). Letter grades will be assigned after the final exam and according to the distribution of the total grade points.