

E-Mail: Please put PHYB21 in the subject line of any course-related emails. I will endeavour to reply as quickly as possible to your e-mail. However, I cannot promise that I will do so outside of normal working hours (Monday-Friday 9-5). Please include your name and student number in any communications. I will not respond to emails if I cannot tell who they are from. Please also note that I will NOT accept assignments via e-mail.

OFFICE HOURS:

I will be available to answer questions on a drop in basis on Fridays between 11:30 and 12:30 in Room SW504E. If you are unable to attend these hours for time table reasons you may arrange an appointment by e-mail. Gene

FEBRUARY 27 and MARCH 1

Capacitance (2.5.4)

Magnetic Fields, Lorentz Forces (5.1.1-5.1.2)

MARCH 6 and MARCH 8

Currents, Biot-Savart Law (5.1.3-5.2)

Divergence and Curl of B, Ampere's Law (5.2.1)

MARCH 13 and MARCH 15

Ampere's Law cont'd (5.3.1-5.3.3)

Magnetic Vector Potential (5.4.1-5.4.3)

MARCH 20 and MARCH 22

Magnetostatic Boundary Conditions (5.4.2)

Ohm's Law, Electromotive force, Motional EMF (7.1.1-7.1.3)

MARCH 27 and MARCH 29

Electromagnetic Induction, Induced Fields (7.2.1-7.2.2)

Inductance, Energy Stored in Magnetic Fields (7.2.3-7.2.4)

APRIL 3 and APRIL 5

Maxwell's Equations (7.3.1-7.3.3)

Extra tutorial

ASSESSMENT:

A COMPREHENSIVE FINAL EXAM (3 hrs) : 50%

MIDTERM TEST (90 minutes) : 21%

4 ASSIGNMENTS (tutorial and take home work): 20% in total

3 TUTORIAL PRACTICALS/QUIZZES : 9% in total

TESTS AND EXAM:

Both the midterm and final exam will draw from lecture and tutorial materials.

NOTES:

One of the main problems students seem to have when taking ~~ele~~ro-magnetism for the first time arises because much of the mathematics is unfamiliar to them. The study of electromagnetism requires the use of