

ST571-01 --- Electromagnetism and Light – Summer 2015

[Note ... the course number was supposed to change to 571 but for Summer 2015 it is still 589 ... don't let it confuse you ... it's still the right course!!]

Detailed Syllabus/Homework Assignments

The summer semester is very rapid. Homeworks must be completed at the rate of 1 or 2 per week. **I will not penalize late homework up until it is 2 weeks late – however after that I cannot accept it.** (If there is some specific hardship please contact me).

When doing homeworks, please use the assignment numbers from this sheet so you can keep track (and I can keep track) of how far you've gotten. I strongly prefer you submit homeworks into Canvas. If there is a technical difficulty you may e-mail:

In that case, please send to mpsonnenfeld@gmail.com and put ST571 in subject line.

Note that I have tried to synchronize the homeworks with the lectures, but not all assignments are the same length.

Detailed Homework Assignments:

HW01 Due 6/15/2015:

Watch these two lectures:

00 LAB - Difference Between Electricity and Magnetism

Bonus Lab – Superconductivity

HW01:

Address the questions contained in the handout HW01.doc.

HW02 Due 6/22/2015:

Watch these two lectures:

Lecture 1: Introductions / Magnetic Field

Lecture 2: Magnetic Forces on Charges and Currents

Read Chapter 11 of Hewitt through p. 232.

Answer questions listed in the handout HW02.doc.

HW03 Due 6/29:

Watch this lecture:

Lecture 3: Motors and Dipole moments

Answer questions listed in the handout HW03.doc.

HW04 Due 7/06:

Watch this lecture:

Lecture 4: Magnetism and Magnetic Induction

Read the remainder of Chapter 11 of Hewitt.

Answer questions listed in the handout HW04a.pdf.

Answer questions listed in the handout HW04b.pdf.

HW05 Due 7/13:

Watch this lecture:

Lecture 5 – Magnetic Induction and Flux

Answer questions listed in the handout HW05.doc.

HW06 Due 7/13:

Watch this lecture:

Lecture 6 – Generators, Transformers and Worked Problems

Answer questions listed in the handout HW06.doc.

HW07 Due 7/20:

Watch these lectures:

Lecture 7 – Labs and demos that you can do with your kit – Part I

Lecture 8 – Labs and demos that you can do with your kit – Part II

Do the labs listed in HW07.pdf

HW08 Due 7/27:

To be announced

HW09 Due 7/31:

To be announced