

## **Electromagnetism II (電磁學二)**

**Course No:** 543 M4760

**Lecture hours:** Tuesday 2:20-5:20 pm

**Classroom:** IAM(應力所) Room 109

### **Instructor:**

**Ruey-Lin Chern (陳瑞琳)**

### **Description:**

This course is an extended lecture of Electromagnetism, which covers the basic theory of electromagnetic waves and related topics including conservation laws, potentials and fields, wave propagation and radiation, and so forth. Students are suggested to have basic knowledge of electrostatics, magnetostatics, as well as electrodynamics.

### **Course outline:**

- 1. Conservation Laws**
- 2. Electromagnetic Waves**
- 3. Potentials and Fields**
- 4. Radiation**

### **Prerequisite:**

**Basic knowledge of Electromagnetism**

### **Text book:**

**Introduction to Electrodynamics (3rd Edition) by David J. Griffiths**

### **Reference:**

**Classical Electrodynamics (3rd ed.), J. D. Jackson, Wiley, 1998**

### **Grading:**

**Midterm exam: 40%**

**Final exam: 40%**

**Homework: 20%**