

EE23102 Electromagnetics I (Spring 2017)

Lecture time & room:

- Tuesday/Thursday 17:30 – 18:45
- Bld. 106, Rm. T205

Instructor

- Prof. Il-Sug Chung
- Office: Bld. 106, Rm. 401-2
- Office hour: Thursday 13:30 – 15:30
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Teaching assistant:

Mr. Seong Jin PARK (psjin62@unist.ac.kr)

Course general objective

In this course, we will learn the fundamental principles of electromagnetism, including electric and magnetic fields, as well as their static and dynamic properties. These knowledges will be a basis for understanding various application structures such as transmission lines, waveguides, cavities, and antennas.

The lectures will be interactive, encouraging active participation of students in the learning process on electromagnetism. In lectures, any questions are welcome!

Textbook

David K. Cheng, *Fundamentals of Engineering Electromagnetics*, International Ed., Addison-Wesley

Pre-requisite

General Physics II and Vector Calculus

Grading

- Class attendance: 10% (-1% for each absence; F for more than 8 absences)
- Homework: 20%
- Midterm exam: 30%
- Final exam: 40%

Course Schedule

Week	Subject	Sections
Feb 27	Introduction and Vector analysis	2.1 – 2.4
Mar 6, 8	Vector analysis	2.5 – 2.11
Mar 13, 15	Static electric fields	3.1 – 3.5
Mar 20, 22	Static electric fields	3.6 – 3.8
Mar 27, 29	Static electric fields	3.9 – 3.11
Apr 3, 5	Steady electric currents	4.1 – 4.4

Apr 10, 12	Steady electric currents	4.5 – 4.6
Apr 16-20	Mid-term exam	
Apr 24, 26	Static magnetic fields	5.1 – 5.4
May 1, 3	Static magnetic fields	5.5 – 5.9
May 8, 10	Static magnetic fields	5.10 – 5.12
May 15, 17	Time-varying fields	6.1 – 6.2
May 24	Time-varying fields	6.2 – 6.3
May 29, 31	Time-varying fields	6.4 – 6.5
Jun 5, 7	Plane electromagnetic waves	7.1 – 7.2
Jun 11-15	Final exam	