

New Course

EE 410/510– Electromagnetic Compatibility and Interference (EMC/EMI)

EMC/EMI course will be offered again in Spring 2010 semester.

The course deals with concepts useful in design of electrical/electronic products *compatible* with governmental as well as industrial requirements on electromagnetic compatibility and interference. This course is a synthesis of the concepts you learn in a variety of courses like circuits, electronics, communications, linear systems and electromagnetics. In electromagnetics you must have taken EE307 or an equivalent course. Main topics include:

- History of EMC/EMI
- Governmental Requirements on EMC/EMI
- Basics of Electromagnetic Fields Useful in EMC/EMI
- Transmission Line Theory
- Non-ideal Behavior of Resistors, Inductors and Capacitors
- Common Impedance Coupling
- Inductive and Capacitive Coupling
- Radiative Coupling
- Shielding and Grounding
- Practical Considerations for Printed Circuit Board Design

Textbook: *Introduction to Electromagnetic Compatibility*, Clayton R. Paul, 2nd Edition, Wiley Interscience, 2006.