ENG EC 455: Electromagnetics Systems
Fall, 2014

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Grading Policy: (1) Homework: 20%,
(2) Mid-term exam 1: 25%,
(3) Mid-term exam 2: 25%,
(4) Final exam: 30%.

Midterm Exam (1) will be held on Friday, Oct 17, 6-8 PM,
Midterm Exam (2) on Friday, Nov 21, 6-8 PM,
Final Exam (TBA). Homework will be collected in the class.
Late homework will not be accepted.

COURSE SCHEDULE

1. Sept 2 Complex expressions, complex vectors, time average [1.1 – 1.5]
2. Sept 4 Maxwell equations [2.1]
3. Sept 9 Maxwell equations, constitutive relations [2.1, 2.2, 16.1]
5. Sept 16 Poynting Theorem [2.5]
6. Sept 18 Uniform waves, polarization [3.1 – 3.3]
7. Sept 23 Plane waves in dissipative media [3.4]
8. Sept 25 Radiation power and pressure [3.5]
9. Sept 30 Boundary conditions [4.1]
10. Oct  2 Reflection & Transmission [4.2]
11. Oct  7 Reflection & Transmission [4.2]
12. Oct.  9 Standing waves [4.3]
14. Oct 17 Midterm Exam I
15. Oct 21 Transmission line equations [6.1, 6.2]
20. Nov  6 Parallel-plate waveguides (TE modes) [5.1]
21. Nov 11 Parallel-plate waveguides (TM modes) [5.1]
22. Nov 13 Rectangular waveguides and resonators [5.2],
23. Nov 18 Dielectric slab waveguides [5.3], Coaxial lines [5.4]
24. Nov 20 Review for Midterm Exam II
25. Nov 21 Midterm Exam II
27. Dec  2 Fields of an infinitesimal antenna [7.2]
28. Dec  4 Linear antennas [7.3]
29. Dec  9 Array antennas [7.4], Review for the Final Exam
30. TBA Final Exam