



University of Wisconsin - Madison

College of Engineering [EGR]

Last Offered: 2013 Fall [1142]

Direct Link to this Syllabus :

<http://aefis.engr.wisc.edu/index.cfm/page/CourseAdmin.ViewABET?coursecatalogid=99&pdf=True>

1. E C E 740, Electromagnetic Theory

2. Credits : 3.00 Contact Hours :

3. Textbook and Materials : Advanced Engineering Electromagnetics; Balanis; 2nd ed.; 2012

4. Specific Course Information :

a. **Brief description of the content of the course (Course Catalog Description) :** Time harmonic fields and waves in linear media with applications to radiation, guiding and scattering; wave and surface impedance and admittance concepts; duality, uniqueness, image theory, equivalence principle, induction and compensation theorems, reciprocity, Green's functions, wave functions, potential and transform theory.

b. **Pre-requisites or Co-requisites :** ECE 420 or cons inst

5. Specific Goals for the Course :

a. **Course Outcomes :**

b. **ABET Student Learning Outcomes :**