



العدد :

التاريخ : ٢٠ / /

Course number and name	EE 2610: Electromagnetic Fields II
Credits and contact hours	3 credits and 3 hours
Course coordinator	
Textbook	W. H. Hayt, Jr. and J. A. Buck, Engineering Electromagnetics. McGraw Hill, Eighth Edition (2012).
Course Information	a. Prerequisites: EE 1100 Circuits I b. Required
Topics to be covered	-Real (complex) materials: Dispersive permittivity -The electromagnetic field of a moving charge and the concepts of Current and Magnetic field -Maxwell's first Curl Equation (Ampere's law) -Using Ampere's Law in integral form to obtain the magnetic fields of current distributions -Second alternative to Ampere's Law, integration over current elements -Third alternative to Ampere's law, the vector potential -Force and energy in the magnetic field -Inductance -Maxwell's second Curl equation aka Faraday's Law -Time Varying fields and Maxwell's equations

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