

## Global Learning Semesters

### Course Syllabus

Course: EENG-330 Electromagnetic II

Department: Engineering

Host Institution: Intercollege, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
EENG-330	Electromagnetic II	3
Semester Offered	Contact Hours	Prerequisites
Fall, Spring	42	EENG-230 Electromagnetic I. Introduction to the fundamentals of electrostatics and electromagnetic.
Department	Level of Course	Language of Instruction
Engineering	Upper Division	English

### Course Description

Covers a wide range of topics including Faraday's law of electromagnetic induction, Maxwell's equations, boundary conditions, wave equations, time-harmonic fields, plane waves in lossless and lossy media, group velocity, electromagnetic power and the Poynting vector, normal/oblique incidence on conducting/dielectric plane, multiple dielectric interfaces, transmission/reflection, wave impedance, polarization, transmission-line theory and impedance matching (Smith chart), waveguides and cavity resonators, and antennas and radiating systems.

### Instructor

Dr Anastasis Polycarpou

### Course Aims and Objectives

The course seeks to provide an introduction to electromagnetic theory, Maxwell's equations for time varying Electromagnetic fields and applications.

### Teaching Methods

The course is delivered through a mixture of lectures and practical exercises and assignments.

### Course Teaching Hours

The course is 42 hours long and is delivered in 14 weeks (3 hours/week).

### Evaluation and Grading

Homework: 10%  
Test 1: 25%  
Test 2: 25%

Final Exam: 40%

## Readings and Resources

### Required Textbook

D. K. Cheng, Fundamentals of Engineering Electromagnetics, Addison-Wesley, 1993

### Recommended Reading

W. H. Hayt, Engineering Electromagnetics, Fifth Edition, McGraw Hill, 1989