


Coordinator: Dr. Nizar Al-Holou, Professor

Objective: To develop an understanding and capability in network analysis and design.

Prerequisites by topic:

1. Phasors

2. Laplace transform

3. Complex Numbers

Computer usage:

Computer Programs, PSPICE will be used extensively for circuit simulation and design in this course and in the EE 361 Network Labs.

Grading: 100-95% = A 71-74% = C+
94-90% = A
65-70% = C
85-89% = B'
61-64% = C\’
80-84% = B
50-60% = D
75-79% = B\’
Below 50%=F

The total 100% consists of the following components:

1. Midterm Exam (2/18/98) 20%

Final Exam (4/20/96, 11-12:50) 30%

3. Quizzes 15%

2. Homework 10%

4. Design Problems & Case Study 25%

[No late homework, nor make-up exams exceptions make only under compelling circumstances].

Withdraw Dates: Jan. 30, 1998 (without a "W") and March 27, 1998 (with a "W").

Office Hours and Phone Number: 11:00 - 12:00 P.M. & 1:00-2:00 P.M. M W F
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Academic Integrity: Students are expected to conform to a high standards of honesty and integrity in this course. Please refer to the University Catalog and E&S Student Handbook for further explanation of academic integrity.

**Topics:**

1. Sinusoidal Steady State Analysis: phasor representations, voltage current and analysis in
1. Phasor domain (Ch 9). (3 classes)

2. Sinusoidal Steady State Power Calculations: Real and reactive power, rms Value and Power Calculations, Complex power, maximum power transfer (Ch 10). (3 Classes)


5. Laplace Transform and Network Analysis. Laplace Transforms for the Typical Functions, Inverse Transforms, Initial and Final Value Theorem, Circuit Analysis in the S-Domain (Ch 13 & 14). (7 classes)

5. Transfer Function, the Transfer Function and the Steady State Response, Bode Plots (Ch 17) (6 classes)

6. Two Port Network: The Terminal Equation, Two-port parameters (Z, Y, a, b, h and g parameters), Analysis of the two-port circuit, Interconnected Two-ports. (6 Classes)