

CEEN2140 Electrical Circuits II

UNO, Spring 2000

TR 10:30-11:45am, PKI335

Fundamental of AC network analysis: sinusoidal steady-state analysis, phasor concepts and complex frequency response, AC power, magnetic circuits and two-port networks, transform methods for circuit analysis.

1. Instructor: Dr. Lim Nguyen, PKI201F, ext. 4-2752, nguyenl@unomaha.edu; office hrs M-R 9-10am, W 1pm.
2. Text: J. D. Irwin, *Basic Engineering Circuit Analysis*, 6th edition, Prentice-Hall 1999.
3. Prerequisites: CEEN2130, Math 1960.
4. Course topics:
 - Review of complex numbers and s-plane.
 - Sinusoidal and phasor concepts: sinusoids and complex forcing functions, phasor diagrams and RLC relations, impedance and admittance circuit analysis.
 - Stead-state power and frequency response analysis.
 - Magnetic circuits and two-port networks.
 - Laplace and Fourier transforms for circuit analysis.
5. Problem sets: there will be approximately 10 problem sets assigned weekly and due the following week in class. Late turn-in (within 1 week of due date) without prior arrangement will be 50% off; no credit after 1-week late. Discussion and collaboration are strongly encouraged. However you must turn in solutions of your own (no division of work, please).
6. Exams: three hourly exams and one final exams, take home or in-class TBD.
7. Grading: problem sets 25%, exams 45%, final 30%.