ECE 580
NETWORK THEORY
Fall 2012

LECTURES: MWF 10:00-11:10 pm
Room: Strand Agriculture Hall 109

INSTRUCTOR: Gabor C. Temes, Professor
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OFFICE HOUR: MF 14:00-15:00 pm

CLASS WEBSITE http://classes.engr.oregonstate.edu/eecs/fall2012/ece580/

PREREQUISITE: Graduate standing in ECE

TEXT: Lecture notes will be posted on the Web. Parts of the following books will be used:


(Note: It is not necessary to acquire these books. Most are out of print. Lecture notes will be posted on the class web page which cover the material.)

MATERIAL TO BE COVERED (if time permits):

- Networks components: R, L, C elements; ideal/perfect/real transformers; op-amps; gyrators; independent/dependent sources.
- Network analysis: the incidence matrix; branch relations; nodal analysis; two-port parameter; multiport networks; multiport parameters; scattering relations and parameters; transfer functions; sensitivity analysis.
- Network synthesis: approximation theory for continuous-time and sampled-data filters; the design of passive, active R-C, Gm-C and switched-capacitor filters.

MIDTERM EXAMINATION: Monday, Oct. 29, 10 – 11:10 am
FINAL EXAMINATION: Monday, Dec. 3, 12 – 1:50 pm