

Engr 5A (ECE)

Class: 1260 Phelps, Wednesday 2:00-2:50

Organization: Lectures, Weekly Homework, Quizzes

Answer Keys scanned into web pages.

Teacher: Forrest Brewer (x8043) 4159 EngrI

TA: Anna Tauke (atauke@yahoo.com)

Class Materials: Class Notes (PDF) on Web (updated periodically)

<http://www.bears.ece.ucsb/class/eng5a/engr5a.html>

Facilities: ECI Cad Lab: Mathematica, MATLAB, MAPLE etc.

Students are encouraged to use computer techniques for problem solutions-- Some problems may require use of computer hosted tools. Students can make use of CADLAB tools or use student copies on their own PC's.

Format: Course is intended to supplement Ma5a content

Syllabus:

Complex Variables, Functions and Techniques

Review of First Order Differential Equations

Second Order Linear Equations

Second Order w. Constant Coefficients

--RLC Circuits and Resonance

Linear Algebra -- Determinants and Linear Independence

--Passive Circuit Graphs and Matrix Form

Linear Algebra -- Eigenvalues, Eigenvectors

Systems of Linear Differential Equations

--Coupled Resonance