Course Syllabus

Course	**Adv Circuits & Systems** **10707 - EET* K119 - T1**	**LAB, Adv Ckts & Systems** **10708 - EET* K120 - T1A**
Credits	**4**	**1**
Prerequisites	**EET* K105/106, MAT* K137**	**EET* K105/106, MAT* K137**
Co-requisites	**EET* K120, MAT* K186**	**EET* K119, MAT* K186**
Attributes	**Open Elective, Tech Lab**	**Open Elective, Tech Lab**
Type	**Lecture**	**Lab**
Time	**MW 2:30-4:10 PM**	**T 2:30-4:10**
Classroom	**Three Rivers CC B209**	**Three Rivers CC B229**
Dates	**1/21/09 - 5/19/09**	**1/21/09 - 5/19/09**
Instructor	**Dan Courtney** dan.courtney@jdsu.com dcourtney@trcc.commnet.edu 860-243-6723	**Dan Courtney** dan.courtney@jdsu.com dcourtney@trcc.commnet.edu 860-243-6723
Text	**Introductory Circuit Analysis 11th ed, Robert L. Boylestad and David M. Buchla, Pearson Publishers**	N/A
Course Description	This course develops the concepts of DC and AC electric circuits introduced in Electric Circuits and Systems. More advanced configurations and applications of DC and AC principles are covered, including: transient behavior of capacitive and inductive circuits; power considerations in industrial AC system; network theorems, such as superposition and Thevenin's theorem applied to DC, AC, and mixed circuits; transformers, three phases circuits, and filters. Electrical Engineering Technology majors are expected to use this course to complete a year of study of circuits and systems.	This course will supplement the course Electric Circuits and Systems. Students will apply the concepts learned in the classroom and develop their skills in making electrical measurements using a variety of test instruments.
Course Topics	Methods ofAnalysis and Selected Topics (dc) Network Theorems Basic Elements and Phasors Series and Parallel AC Circuits Series-Parallel AC Netowrks Methods ofAnalysis and Selected Topics (ac) Network Theorems (ac) Power (ac) Resonance Frequency Response Magnetic Circuits Transformers Polyphase Systems Motors and Generatos Pulse Waveforms and RC Response Nonsinusoidal Circuits	Laboratory Familiarization, 5S Lab Instumentation Reactance in AC Circuits Series Circuit Impedance Series-Parallel Impedance Series Resonant Circuit AC Mesh and Nodal Equations Thevenin's Theorem for AC Networks AC Power Power Factor Correction Resonance Special Topics Projects