



COURSE SYLLABUS

Fall 2012

Course:	Advanced Circuits and Systems EET K119	Lab, Advanced Circuits and Systems EET K120
Location:	Room B229	Room B229
Time:	T 5:00-7:45 pm	T 8:00-9:40 pm
Prerequisites:	EET K105/106, MAT K137	EET K105/106, MAT K137
Co requisites:	EET K120, MAT 186	EET K119, MAT 186
Instructor:	John Forella forella@earthlink.net	John Forella forella@earthlink.net
Office Hours:	By appointment	By appointment
Text:	The Science of Electronics – DC/AC, David M, Buchla & Thomas Floyd	N/A

Course Description: This course develops the concepts of DC and AC electric circuits introduced in (K105) Electric Circuits and Systems. More advanced configurations and applications of DC and AC principles are covered, including: Capacitors and inductors in AC circuits; network theorems; power systems and magnetic circuits.

Laboratory experiments will be included throughout the course to allow the students to apply the concepts learned in the classroom and develop their skills in building and testing circuits.

Course Topics:

DC series/parallel and AC principles review
Reactance and impedance
Filters and frequency response
Superposition & Thevenin network theorems
Power systems
Magnetic Circuits
MultiSim

Lab Safety & Standard Practices
Equipment Familiarization
Reactance in AC Circuits
Series and Parallel Impedance
Network Theorems
Power Factor Correction
Special Topics and Projects



Course Format: This course will be a combination of lecture and lab exercises. All classes are held in the lab for easy transition from lecture topics to hands-on demonstration of theoretical principles.

Grading: Homework, Lab Exercises and Reports. Tests, Oral Presentations, Class Participation, Attendance, Promptness, Professional Attitude.

Attendance/Timeliness: Attendance is mandatory at all class and lab sessions. Tardiness of attendance and/or assignments can have a significant negative impact on grading.

K119/120 Course Outcomes: The Course Outcomes are defined and assessed to determine the effectiveness of the course at meeting the course objectives.

1. Mastery of electrical technology concepts as defined in this syllabus.
2. Knowledge of advanced electrical quantities, units and relationships.
3. Demonstrate an ability to build and test advanced electrical circuits and systems.
4. Demonstrate an ability to analyze and solve problems relating to advanced electrical systems.
5. Demonstrate oral and written communications skills.
6. Demonstrate an appreciation for lifelong learning.
7. Demonstrate proper professional and ethical behavior.
8. Demonstrate a commitment to quality, timeliness and continuous improvement

College Withdrawal Policy

Students may withdraw, in writing or verbally at the Registrar's Office for any reason until the end of the 10th week of classes. From the 11th week through the end of the 13th week, a student may withdraw with the instructor's written approval.

Disabilities Statement

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Disabilities Counseling Services at 383-5240. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. Please note that I cannot provide accommodations based upon disability until I have received an accommodation letter from the Disabilities Counselor.