

**UNIVERSITY OF MASSACHUSETTS
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING**

ECE 361

Fundamentals of Electrical Engineering (3 credits)

FALL 2013

Class Hours: MWF 11:15 AM – 12:05 PM from 9/3/13 to 12/6/13

Location: ELAB II Room 119

Professor: Dr. David McLaughlin

Office: 205 Marcus **Phone:** 413.336.1707 **email:** mclaughlin@ecs.umass.edu

Office Hours: Thursday 3:00 – 5:00 PM and by appointment

Teaching Assistant: Izzy Masiunas

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Drop-in Lab Clinic: MIE Innovation Lab, Wednesdays 4-5 pm

Course Web Page: <https://moodle.umass.edu> (login using your UMass OIT ID)

Description: This course is intended to provide the non-EE student with the relevant electrical and electronic engineering concepts and device knowledge to effectively work in multi-disciplined design, development, and manufacturing teams.

Objectives: Students completing the course will have an understanding of the following topics:

1. Basic RLC circuit elements and analysis of simple circuits
2. Basic sinusoidal response of RLC circuits
3. Diode and transistor circuits and applications
4. Digital logic circuits
5. Microcomputer applications

Textbook: Allan R. Hambley, Electrical Engineering Principles and Applications, 6th Ed., Pearson. (you may also use the 5th edition)

Exams: There will be two exams given during the semester and a final exam during exam week.

Homework: Weekly homework will be assigned. Homework problems will be graded and returned. Owing to the size of the class, late homework will not be accepted.

Lab projects: Students work in teams of four (4) on asynchronous lab experiments using a parts-kit that will be provided. Weekly lab experiments will be assigned, culminating in two term projects.

Grading:

2 midterms at 20% each	40%
Homework assignments	10%
Lab projects	20%
Final exam	30%

Honesty Policy: Collaborative efforts on homework and lab assignments are encouraged. Exams, however, represent an individual's work and require that you have personally gained the knowledge that you need from the homework and labs to succeed in the exams. No form of cheating, plagiarism, fabrication, or facilitating dishonesty will be condoned in the University community. Any incident of academic dishonesty will be forwarded to the University Academic Honesty Board and handled in accordance with its policy. The UMASS Academic Honesty Policy and Appeal Procedure can be found at www.umass.edu/dean_students/codeofconduct/acadhonesty