Piedmont Technical College Course Syllabus

COURSE INFORMATION

Course Prefix/Number: EEM 118
Title: AC/DC Circuits II
Responsible Division: Engineering and Industrial Technologies
Last Day to Withdraw from this Course: For the last date to withdraw from this course, consult the current Student Calendar.

Course Description:
For course, credit hour, pre-requisite(s) and co-requisite(s) information, visit the Detailed Course Information page: www.ptc.edu/courses/EEM118.

Textbook and Other Materials:
For textbook information and additional required and/or supplemental materials, visit the college bookstore (www.ptc.edu/bookstore).

Proctored Examinations:
Proctored examinations for distance learning courses taken at non-PTC campuses may require a proctoring fee for each exam taken.

COURSE POLICIES

Course policies are available online through the Academic Catalog and Student Handbook. Visit the Course Policies page (www.ptc.edu/syllabus/policies) for a detailed list of important policies and more information.

GRADE POLICY

Detailed grading policy information can be found on the Grading Policy webpage (http://www.ptc.edu/grading-policy). Final grade appeal information is available in the Academic Catalog (http://www.ptc.edu/catalog/).
**ACCOMMODATIONS**

**Accommodations for ADA:**

Information is available on the Student Disability Services webpage (http://www.ptc.edu/ada).

**RATIONALE**

**Why do I need this course?**

Advances in technology have impacted every aspect of manufacturing – from design and production to inventory management, delivery and service. Today’s manufacturing jobs are technology jobs and technicians must have a wide range of skills required to respond to the demands of an increasingly complex environment. This class will help prepare the student for a high tech career in advanced manufacturing.

**PROGRAM INFORMATION**

For program information including required courses, program learning outcomes, gainful employment information and advisement information, refer to the Academic Program webpage. Go to Academics (http://www.ptc.edu/academics), select your program, and then select Credentials Offered.

**COURSE STUDENT LEARNING OUTCOMES**

Upon successful completion of this course and/or clinical, each student will be able to:

- Give examples of safe and unsafe work practices.
- Outline the role of Trigonometry in AC Circuits.
- Calculate Voltage and Current values for AC Circuits.
- Describe a Capacitor and explain how it works.
- Perform voltage, current and resistance calculations for a series resistive-capacitive circuit.
- Describe an Inductor and explain how it works.
- Perform voltage, current and resistance calculations for a series resistive-inductive circuit.
• Perform voltage, current and resistance calculations for a series resistive-capacitive-inductive circuit.
• Recognize a transformer and explain how it works.

GENERAL EDUCATION COMPETENCIES

Piedmont Technical College General Education Competencies for All Graduates:

This course may address one or more of the following General Education Competencies (assessment will be stated when applicable):

Communicate effectively.
Assessment: N/A

Apply mathematical skills appropriate to an occupation.
Assessment
Perform course specific calculations.

Employ effective processes for resolving problems and making decisions.
Assessment: N/A

Demonstrate the basic computer skills necessary to function in a technological world.
Assessment:
Completing D2L course work.

To validate proficiency in the general education competencies, students in some programs will be tested using Work Keys.