

Piedmont Technical College Course Syllabus

COURSE INFORMATION

Course Prefix/Number: EEM 151

Title: Motor Controls I

Responsible Division: Engineering/Industrial

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/eem151.

Textbook and Other Materials:

For textbook information and additional required and/or supplemental materials, visit the [college bookstore](http://www.ptc.edu/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](http://www.ptc.edu/syllabus/policies) (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) (http://www.ptc.edu/grading-policy). Final grade appeal information is available in the [Academic Catalog](http://www.ptc.edu/catalog/) (http://www.ptc.edu/catalog/).

ACCOMMODATIONS

Accommodations for ADA:

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

RATIONALE

Why do I need this course?

Electric motors play a very important part in furnishing power for all types of domestic and industrial applications. Their versatility, dependability, and economy of operation cannot be equaled by any other form of motive power. It is estimated that electric motors are utilized in over ninety percent of industrial applications. Electric motors affect just about every phase of our life.

Motor control is a broad term that is used to describe the system that controls the operation of an electric motor. It may be a simple on-off switch or a highly complicated array of switches, relays, pilots, sensors, or other devices that control an entire process. Therefore, motors without controls are of little or no value and so it is of upmost importance for us to study motor controls in order to fully utilize a motor.

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) (<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:

- Interpret the symbology and terminology of simple control circuits.
- Write basic motor control diagrams.
- Construct motor control circuits.

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:

N/A

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:

N/A

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