



## COURSE SYLLABUS

**COURSE: ELN 229 INDUSTRIAL ELECTRONICS**

**HOURS: Lecture: 3 Lab/Shop: 3 Work Exp/Clinical: 0 Credits: 4**

### **COURSE DESCRIPTION:**

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices. Upon completion, students should be able to construct and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

**PREREQUISITE(S):** ELC 112 or ELC 131

**COREQUISITE(S):** NONE

### **TEXTBOOK(S) & OTHER SPECIAL REQUIREMENTS:**

Open Educational Resources (OER) are listed in the course Moodle.

### **STUDENT LEARNING OUTCOMES:**

Upon successful completion of this course, the student will be able to:

1. Identify and demonstrate safe practices and procedures with tools, materials and industry accepted test equipment covered in the course.
2. Demonstrate appropriate use of test equipment, evaluate circuit performance and apply appropriate troubleshooting techniques to semiconductor devices.
3. Describe the properties and operation of semiconductors.
4. Identify the schematic symbols associated with semiconductor devices.
5. Construct and analyze operational circuits using semiconductor devices.

**\*\*\*Please refer to the online version of the Richmond Community College Program & Course Catalog and the Student Handbook for current academic and general information.**