Industrial Technology

This program is offered at **Fresno, Bakersfield, Rancho Cucamonga, Hesperia, Modesto,** and **Visalia**.

Program Description

This is 30 school week program is designed to provide fundamental, hands-on training of electrical equipment, motor control, programmable logic controllers, fluid power systems, bearing application, and power transmission systems which are utilized in an industrial facility. Students will learn electricity theory with emphasis in those energy sources developed for commercial and manufacturing use. Students will also learn central concepts and applications of Programmable Logic Controllers (PLCs). In addition, students will study the basic principles, applications, concepts, functions of hydraulic systems, bearings, and power transmission components.

Program Student Learning Outcomes

Upon completion of this program, the graduate will be able to:
1. Apply basic concepts of electrical theory related to motor control
2. Operate and maintain machinery and machinery components such as industrial bearings, gear systems, and shaft joining and coupling devices
3. Perform advanced hydraulic testing procedures, maintenance, and hydraulic systems operation
4. Program, install, and perform diagnostic functions on programmable logic controllers (PLCs)
5. Use a computer and associated hardware and software to generate documents, prepare electronic spreadsheets, manage databases, conduct Internet research, and communicate via electronic mail
6. Relate and apply concepts of communication, reasoning, critical analysis, ethical behavior and appropriate interpersonal interaction to situations in his or her career and personal life
7. Demonstrate the social skills, professional appearance, attitudes and behavior that employers expect of all SJVC graduates

Admission Requirements
*   Valid California driver license
*   No felony convictions
*   No misdemeanor convictions for property or drug crimes

The following courses are required to obtain a certificate in this field.

Course ID	Course Name	Credit Units
IT 101	Basic Industrial Electricity	10.0
IT 110	Power Transmission	5.0
IT 120	Fluid Power	5.0
IT 201*	Programmable Logic Controllers	10.0
Certificate Program Total		**30.0**

*This course satisfies the CSS100 graduation requirement.
For a description of the courses listed above, please see Section 8.