

# ABOUT THE COLLEGE

## The College

Chaffey College, one of the first colleges to be established in California, is a two-year public community college situated in an area of natural and tranquil beauty in Southern California. The campus occupies 200 acres of rolling lawns and native foliage in the foothills of the majestic San Gabriel Mountains. Founded in 1883 as a private college, Chaffey has been a publicly funded college since 1916.

## Curricula

Chaffey College offers two year associate in art or science degrees in academic or vocational fields, one-year certificates of achievement, and transfer programs that meet the lower-division requirements for a baccalaureate degree to be obtained at a four-year college or university. The college operates on the semester system, which consists of fall, spring, and summer terms.

Courses are offered at the main campus in Rancho Cucamonga and at campuses in Chino and Fontana, as well as online through the Distance Education program.

## District

The college district serves a population of 750,000 in the west end of the vibrant Inland Empire of San Bernardino County, including the communities of Chino, Chino Hills, Fontana, Montclair, Ontario, Rancho Cucamonga, and Upland.



## Statement of Equal Opportunity

Non-Discrimination and Prohibition of Harassment Policy

The District and each individual who represents the District shall provide equal access to employment and educational opportunities without regard to race, color, national origin, ancestry, religion, creed, sex, age (over 40), physical disability (including HIV and AIDS) or mental disability, marital status, medical condition (including cancer and genetic characteristics), sexual orientation, or military status as a Vietnam-era veteran, or the perception that a person has one or more of the foregoing characteristics.



## THE INSTRUCTORS

Industrial Electrical Technology faculty at Chaffey College have extensive current industrial experience. All of the instructors have worked in the areas they teach and have licenses and certificates for those areas.

## FOR MORE INFORMATION

[www.chaffey.edu/bat/electrical](http://www.chaffey.edu/bat/electrical)

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INDUSTRIAL ELECTRICAL TECHNOLOGY

**Chaffey College offers three Industrial Electrical Technology programs:**

- **INDUSTRIAL ELECTRICAL TECHNOLOGY**
- **ELECTROMECHANICAL TECHNOLOGY**
- **INSTRUMENTATION TECHNOLOGY**

## **THE FACILITY**

The Industrial Electrical Technology program is one of many offered at the Robert Pile Chaffey College Chino Information Technology Center (CHTC). The CHTC is a dynamic partnership between Chaffey College, the City of Chino, and several business sponsors.

The state-of-the-art electricity laboratory offers 1,400 square feet with workbenches around the perimeter with tables in the center. The lab is equipped with computers and software to simulate “real world” problems that allow students to develop the trouble-shooting skills needed for employment in industry. The lab is also equipped with interactive, industrial quality trainers that allow students to gain skills and knowledge in specific technologies.

## **THE PROGRAM**

*Each program is designed to provide students with the skills needed to master current technology and gain employment in industry. Programs are divided into levels or “building blocks”, allowing each student to meet their specific career goals. A certificate is awarded at*

*each level. Associate of Science degrees are awarded for each program. Credit may be earned for internship work experience and is strongly recommended for all three programs.*

### **INDUSTRIAL ELECTRICAL TECHNOLOGY**

Industrial Electrical Technology is the study of electrical motors, variable speed drives and controls, including computer controls such as Programmable Logic Controllers (PLCs). The National Electric Code and electrical schematics and blueprints are stressed.

**LEVEL I CERTIFICATE** - Prepares students for entry-level employment in industry, or as a general electrician helper.

**LEVEL II CERTIFICATE** - Builds on Level I by adding advanced information about static devices and Programmable Logic Controllers (PLCs). Students also learn how to interpret and apply National Electric Code.

**LEVEL III CERTIFICATE** - Prepares students to be industrial electrical technicians. Students learn how to troubleshoot power, lighting and generation systems and components, and work with AC and DC Variable Speed Drives.

**ASSOCIATE IN SCIENCE DEGREE** - Students who complete the course work for the Industrial Electrical Technology Level III Certificate may also earn an AS Degree by completing the required general education courses.

### **ELECTROMECHANICAL TECHNOLOGY**

Electromechanical Technology is the study of how industry uses fluid and air power, along with electrical controls. This program combines industrial electricity with hydraulics and pneumatics to prepare the student to work in the area of robotics.

**LEVEL I CERTIFICATE** - Prepares students for entry-level employment in robotics.

**LEVEL II CERTIFICATE** - Prepares the student to become an assistant-technician for installing, programming, and repairing robots and related equipment. Students learn how Programmable Logic Controllers (PLCs) can be used to control hydraulic applications. Students are also introduced to pneumatics (air power).

**LEVEL III CERTIFICATE** - Qualifies students to work as technicians in hydraulics and pneumatics. Students learn advanced information about the function of hydraulic and pneumatic components and the control of hydraulic and pneumatic systems.

**ASSOCIATE IN SCIENCE DEGREE** - Students who complete the course work for the Electromechanical Technology Level III Certificate may also earn an AS Degree by completing the required general education courses.

### **INSTRUMENTATION TECHNOLOGY**

Instrumentation Technology is the study and practice of controlling energy and is common to all types of industry. The Instrumentation Technology program at Chaffey College covers the use of sophisticated electrical, electronic, and pneumatic instruments to control industrial processes. The areas studied are: pressure, temperature, level flow, and analytical process control. Instrumentation is used in many industries including petroleum, chemical, water & sewage treatment, electrical power generation, food processing and paper and metal production industries.

**LEVEL I CERTIFICATE** - Prepares students for entry-level employment in industry. Basics of electricity, electrical controls and blueprints are covered. Students are introduced to flow process, measurement and control.

**LEVEL II CERTIFICATE** - Prepares the student for employment as maintenance level process/instrument technicians. This program builds on the Level I Certificate by adding information on level and temperature process control.

**ASSOCIATE IN SCIENCE DEGREE** - Students who complete the course work for the Instrumentation Technology Level II Certificate may also earn an AS Degree by completing the required general education courses.