

INDUSTRIAL ELECTRICAL TECHNOLOGY/ MECHATRONICS

PROGRAM DESCRIPTION:

The Industrial Electrical Technology programs provide a broad working base from which to handle the many facets of industrial electricity as it relates to light and heavy industry, construction, and utility companies that provide electrical power. The programs meet the needs of those entering the trade for the first time, and allow those already in the trade to improve their understanding of the craft.

The Industrial Electrical Technology program curriculum covers electricity, magnetics, solid-state devices, electrical machinery, micro processing, programmable logic controllers (PLC's), DC and AC variable speed drives, and automation, including modern sophisticated concepts and practical applications.

CAREER AT A GLANCE:

HOW DO I KNOW IF THIS MAJOR IS FOR ME?

- You enjoy hands-on practical work
- You like to monitor equipment to ensure equipment is properly working
- You like to diagnose problems and test solutions
- You like to inspect parts and put things together
- You are comfortable working with wiring and electrical parts

Use Focus2Career on your MyChaffey portal to learn more about careers and majors that fit you best.

WHERE CAN I WORK?

Electrical Equipment Companies	Equipment Manufacturing
Industrial Machinery Manufacturing	Utility Companies
Construction	Railroad Yards

For more information visit: www.labormarketinfo.edd.ca.gov/OccGuides

HOW DO I GET STARTED?

- Start taking introductory electrical courses
- Job shadow and network with professionals in positions you wish to obtain in the future
- Meet with Industrial Electrical Technology faculty to learn more about apprenticeship programs
- Update resume to include technical and classroom experiences

WHAT CAN I DO WITH THIS CERTIFICATE AND/OR ASSOCIATE DEGREE?

<i>Position Title</i>	<i>CA Median Salary</i>
Electrical Equipment Assembler	\$32,620
Electrical Repairer	\$79,780
Industrial Electrical Repairer	\$79,780
Electromechanical Maintenance	\$69,070
Electrical Maintenance Technician	\$57,850
Meter Tester	\$38,670
Substation Electrician	\$64,220
Electrical HVAC	\$53,630
Electrical Sales	\$76,240
Shipping Electrical Maintenance Technician	\$57,850
Warehousing Electrical Maintenance Technician	\$57,850
Utility Technician	\$57,850
Control System Technician	\$57,850
Automation Logistics	\$81,580
Elevator Repair	\$88,700

WHAT CAN I DO WITH HIGHER EDUCATION AND ADDITIONAL TRAINING?

<i>Position Title</i>	<i>CA Median Salary</i>
Industrial Engineer	\$101,420
Electrical Engineer	\$110,880
Mechatronics Engineer	\$107,150
Controls Engineer	\$119,280
Equipment Engineer	\$98,260

For more information about careers, education and training requirements, salary data, and job outlooks visit www.onetonline.org.

INDUSTRIAL ELECTRICAL TECHNOLOGY/ MECHATRONICS

MAJOR AND COURSE REQUIREMENTS:

LEGEND: G=Grade IP=In Progress N=Need **Bold: Prerequisites** Plain Text: No Prerequisites

<i>Requirements for the Associate in Science Degree: (S150)</i>		Grade	IP	Need	Units
IET 401A	Introduction to Electricity				2.5
IET 401B	Industrial Basic Controls				2.5
IET 403A	Electrical Motors and Controls I				2.5
IET 403B	Electrical Motors and Controls II				2.5
IET 405	National Electrical Code				3
IET 407	Electrical Blueprints				3
IET 411	Programmable Logic Controllers				3
IET 413	Intermediate Programmable Logic Controllers				3
IET 414	Advanced Programmable Logic Controllers				3
IET 415	Advanced Electricity Laboratory				2
IET 417	Electrical Troubleshooting				3
IET 419	DC Variable Speed Drive				1.5
IET 420	Fundamentals of Control Systems Technology				4
IET 421	AC Variable Frequency Speed Drive				1.5
IET 422	OSHA Safety Training				2
IET 460	Introduction to Photovoltaic Installation				3

<i>Strongly Recommended:</i>		Grade	IP	Need	Units
IET 484ABCD	Industrial Electricity Internship				1-4

Student Name: _____

ID#: _____

Date: _____

Counselor: _____

COUNSELOR NOTES:

\$46 per unit for CA Residents

In addition to completion of the MAJOR, there are other requirements for the degree, refer to the Chaffey College Graduation Requirement Sheet or see a counselor in the Counseling Center.
 All courses required for a certificate must be completed with a minimum grade of C.

INDUSTRIAL ELECTRICAL TECHNOLOGY

Requirements for the Industrial Electrical Level I Certificate: (L149)		Grade	IP	Need	Units
IET 401A	Introduction to Electricity				2.5
IET 401B	Industrial Basic Controls				2.5
IET 403A	Electrical Motors and Controls I				2.5
IET 403B	Electrical Motors and Controls II				2.5
IET 405	National Electrical Code				3
IET 407	Electrical Blueprints				3
IET 460	Introduction to Photovoltaic Installation				3

Strongly Recommended:		Grade	IP	Need	Units
IET 484ABCD	Industrial Electricity Internship				1-4

Requirements for the Industrial Electrical Technology Level II Certificate: (T151)

Same requirements as for Level I Certificate, plus:		GRADE	IP	NEED	UNITS
IET 411	Programmable Logic Controllers				3
IET 413	Intermediate Programmable Logic Controllers				3
IET 417	Electricity Troubleshooting				3
IET 420	Fundamentals of Control Systems Technology				4

Strongly recommended:		GRADE	IP	NEED	UNITS
IET 484ABCD	Industrial Electricity Internship				1-4

Requirements for the Industrial Electrical Technology Level III Certificate: (T154)

Same as the major requirements for the A.S. Degree.

Strongly recommended:		GRADE	IP	NEED	UNITS
IET 484ABCD	Industrial Electricity Internship				1-4

Requirements for the Electromechanical Technology Level I Certificate: (L153)

(Non-transcripted)		GRADE	IP	NEED	UNITS
CIS 1	Introduction to Computer Information Systems				3
IET 401A	Introduction to Electricity				2.5
IET 401B	Industrial Basic Controls				2.5
IET 407	Electrical Blueprints				3
IETELMT 430	Hydraulic Fundamentals				2
IETELMT 432	Electrical Control of Hydraulic Systems				2

In addition to completion of the MAJOR, there are other requirements for the degree, refer to the Chaffey College Graduation Requirement Sheet or see a counselor in the Counseling Center.
 All courses required for a certificate must be completed with a minimum grade of C.

INDUSTRIAL ELECTRICAL TECHNOLOGY/ MECHATRONICS

Requirements for the Mechatronics Associate in Science Degree: (S156)		Grade	IP	Need	Units
IET 401A	Introduction to Electricity				2.5
IET 401B	Industrial Basic Controls				2.5
IET 407	Electrical Blueprints				3
IET 411	Programmable Logic Controllers				3
IET 422	OSHA Safety Training				2
IETELMT 430	Hydraulic Fundamentals				2
IETELMT 432	Electrical Control of Hydraulic Systems				2
IETELMT 436	Pneumatics Fundamentals				2
IETELMT 438	Electrical Control of Pneumatic Systems				2
IETMECH 400	Introduction to Mechatronics				4
IETMECH 401	Robotics and Sequencing				4
IETMECH 402	Mechatronics Troubleshooting				4

Requirements for the Mechatronics Level I Certificate: (L156)		Grade	IP	Need	Units
IET 401A	Introduction to Electricity				2.5
IET 401B	Industrial Basic Controls				2.5
IET 407	Electrical Blueprints				3
IET 422	OSHA Safety Training				2
IETELMT 430	Hydraulic Fundamentals				2
IETELMT 432	Electrical Control of Hydraulic Systems				2
IETMECH 400	Introduction to Mechatronics				4

Requirements for the Mechatronics Level II Certificate: (B156)		Grade	IP	Need	Units
IET 411	Programmable Logic Controllers				3
IETELMT 436	Pneumatics Fundamentals				2
IETELMT 438	Electrical Control of Pneumatic Systems				2
IETMECH 401	Robotics and Sequencing				4
IETMECH 402	Mechatronics Troubleshooting				4

In addition to completion of the MAJOR, there are other requirements for the degree, refer to the Chaffey College Graduation Requirement Sheet or see a counselor in the Counseling Center. All courses required for a certificate must be completed with a minimum grade of C.