

# ELECTRONIC TECHNOLOGIES 15.0300.00

## Program Description, Industry Credential, Coherent Sequence, and Teacher Certification

### PROGRAM DESCRIPTION

The **Electronic Technologies** instructional program prepares students to apply basic engineering principles and technical skills in support of electrical, electronics and communication engineers. Includes instruction in electrical circuitry, prototype development and testing, systems analysis and testing, systems maintenance, instrument calibration, and report preparation.

The **Electronic Technologies** instructional program is interwoven with practical and engaging activities and projects that repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas. Students completing the **Electronic Technologies** program will further understand advances in electronic technologies, energy bands with electronics, optical properties, and evolving nanotechnology related to circuits.

The **Electronic Technologies** Career and Technical Education program is delivered as a coherent sequence of courses designed to offer students knowledge and skills that meet the needs of the workplace. The Professional Skills developed by business and industry leaders across Arizona are integrated throughout the program. **Electronic Technologies** students develop leadership, social, civic, and career skills through participation in the state-recognized Career and Technical Student Organizations, SkillsUSA or FBLA (Future Business Leaders of America).

The **Electronic Technologies** instructional program prepares students for entry-level employment, further training, and/or post-secondary education for these and other occupations: An Instrumentation Technician, Electronic Bench Technician, Electronics Technician, Help desk technician, Test technician, and Electronics test technician

### INDUSTRY CREDENTIALS

The following credentials have been approved for the A-F CCR and are CTED eligible for the **Electronic Technologies** instructional program:

- FCC License - General Radiotelephone Operators (GROL)
- National Center for Construction Education and Research (NCCER) - Electronics Systems Technician (EST) - Level 1
- National Center for Construction Education and Research (NCCER) - Electronics Systems Technician (EST) - Level 2

The following credentials have been approved to meet CTED eligibility for the **Electronic Technologies** instructional program:

- Electronics Systems Professional Alliance (ESPA) - Electronics Systems Technician (EST)
- IPC and the Wiring Harness Manufacturer's Association (WHMA) J-STD-001 Certification
- IPC Association Connecting Electronics Industries - Hand Soldering
- National Institute for Certification in Engineering Technologies (NICET)

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## **COHERENT SEQUENCE**

15.0300.10 – Electronic Technologies I, **and**

15.0300.20 – Electronic Technologies II, **and**

15.0300.25 – Electronic Technologies III, **and program may elect to add:**

15.0300.40 – Electronic Technologies IV, **or**

15.0300.70 – Electronic Technologies – DCE (Diversified Cooperative Education) **or**

15.0300.75 – Electronic Technologies – Internship, **or**

15.0300.80 – Electronic Technologies – Cooperative Education

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### **TEACHER CERTIFICATION REQUIREMENTS**

The instructor must be ADE/CTE certified in one of the following Certificates: PCTIET, SCTIET, or SSCTEIET

Note:

- Electronic Technologies 15.0300.70 may be a part of the sequence and the teacher must hold a Cooperative Education Endorsement (CEN).
- Electronic Technologies 15.0300.75 is not required to have a Cooperative Education Endorsement (CEN).
- Electronic Technologies 15.0300.80 is required to have a Cooperative Education Endorsement (CEN).

### **CERTIFICATE TYPES**

<b>PCTIET</b>	Provisional Career and Technical Education Industrial and Emerging Technologies
<b>SCTIET</b>	Standard Career and Technical Education Industrial and Emerging Technologies
<b>SSCTEIET</b>	Standard Specialized Career and Technical Education Industrial and Emerging Technologies