Program Name	Industrial Electrician
Program CIP Code	46.0300.30
Program Description and Coherent Sequence	The **Industrial Electrician** program prepares individuals to apply technical knowledge and skills to install indoor and outdoor commercial and industrial electrical systems and associated power transmission lines. Includes instruction in electricity, safety procedures, wiring, insulation and grounding, schematic blueprint interpretation, equipment operation and maintenance and applicable codes and standards. The program is designed and delivered as a coherent sequence of experiences using technical instruction, academic foundations, experiential learning, supervised occupational experience and leadership and personal development through the Career and Technical Student Organization, SkillsUSA. This program can lead towards an industry-recognized NCCER credential and OSHA 10. **Fundamentals of Electrical and Power Transmission Technologies:** This foundation course will prepare students to use a wide variety of tools and equipment and maintain a safe work environment. The student will develop an understanding of construction math, reading blueprints, install, operate and repair electric apparatus and systems such as residential, commercial and industrial electric power wiring; DC and AC motors controls, electrical distribution panels and techniques. The student will develop skills in oral and written communication as they relate to the electrical industry. This course is designed to help students develop an enhanced understanding of teamwork, employability skills and career opportunities in the electrical field. **Industrial Electrician:** This course prepares the individual to apply and demonstrate advanced technical knowledge and skills. This lab-based course will provide the students an opportunity to participate in maintaining and repairing local, long distance and rural electric power cables and communication lines, erect and construct pole and tower lines; install underground lines and cables, which will include installation and repair, fiber-optic technology, maintenance and inspection, safety, remote communications and applicable codes and standards. Also includes the planning, design and completion of project-based activities. This course prepares students for advanced technical knowledge and skills using a variety of techniques and equipment. **Work-based Learning:** Students have the opportunity to participate in either an Industrial Electrician Cooperative Education experience or an Internship.
Industry Validated Standards	http://www.azed.gov/career-technical-education/files/2013/07/technical-standards-industrial-electrician-lineworker-46030030.pdf

Specialized Equipment	Under Development
Industry Recognized Certifications	Occupational Safety and Health Administration (OSHA) 10 Hour Training for Construction Industry **and** **Must offer one or more of the following certifications:** • NCCER Core-87.5 hours • NCCER Electrical: o Level 1– 185 hours o Level 2- 157.5 hours o Level 3– 157.5 hours o Level 4– 155 hours • NCCER Powerline Worker o Level 1– 404.5 hours
CTE End-Of- Program (EOP) Technical Skill Assessment (TSA) Y/N	No
Current EOP TSA Pass Score	N/A
Participation in JTED Program Qualifies Students for These Employment Opportunities	Apprentice Electrician Electrician's helper

SB1525 JTED Course and Program Requirements

Requires students obtain passing score of 60% on assessment 15-391(3)(b) Page 1/20-24 & 15-391(5)(b) Page 2/1-6	The NCCER cut score for the written and performance test is 70% to pass. All levels of a curriculum must be passed to receive the credential.
Not a Course Required under Minimum Course of Study including Honors 15-391(3)(d) Page 1/27-29	This course is not required to graduate.
Majority of Instructional Time in Lab / Field / Work Based Learning Environment 15-391 (3)(e) Page 1/30-32 and **Requires CTSO Participation** 15-391(5)(d) Page 2/10-13	The program has more than a majority of lab time needed to become competent in industrial wiring, reading blueprint, interpreting building codes and developing industry standard skills. SkillsUSA (has industry aligned competitions for electrical wiring judged by industry professionals)
Demonstrated Need for Extra Funding for a course 15-391 (3)(f) Page 1/33-34	Yes, the tools and equipment needed for this program is substantially different and expensive to meet industry standards, local, county and state building codes.
Specialized Equipment Exceeds Cost of Standard Course 15-391(3)(g) Page 1/35-36 and 15-391(5)(c) Page 2/7-9	Yes, reading plans, electrical tools and equipment are required for this course that are beyond the scope of a standard classroom—insulating blankets, hot sticks, fuse pullers, shorting probes, multimeter, ladder and hand and power tools specifically for wiring.
Alignment through Curriculum, Instructional Model and Courses Sequence 15-391(5)(e) Page 2/15-18	Yes, the established course sequence for Industrial Electrician is 2 Carnegie Units of Instruction.
Defined Pathway to Career and Postsecondary Ed in Specific Vocation or Industry 15-391(5)(f) Page 2/19-21	Yes, leads to careers in industrial wiring, commercial wiring and apprenticeships. Associate of Applied Science degree in Electrical and Instrumentation Technology along with Electrical and Instrumentation Technician Certificate
Fills High Need Vocation or Industry as Determined by CTE/ADE 15-391(5)(j) Page 2/30-31	Yes, the Industrial Electrician program is ranked # 2 on the 2016 CTE Program List. Ranking is based on “high demand, high wage, high skill” occupations as determined by Arizona Labor Market Data from the AZ Office of Employment and Population Statistics.

Requires a Single or Stackable Credential or a Skill that allows a student to obtain work 15-391(5)(k) Page 2/32-35	Yes, NCCER credentials earned during the program lead towards a full credential when hours and performance measures are met; students develop skills that would allow them to enter an apprentice program or gain credit through dual or concurrent enrollment at a community college.
Leads to certification or licensure verified by that vocation or industry that qualifies student for employment which the student would not otherwise qualify. 15-391(5)(l) Page 2/36-39	Yes, NCCER Credentials for Core, Electrician, Licensed Electrical Contractor.
If no certification or licensure is accepted by vocation or industry, completion of program must qualify student for employment for which student would not otherwise qualify without completing JTED program. 15-391(5)(l) Page 2/39-43	N/A
Requires instruction and instructional materials substantially different from and exceed scope of standard instruction and include skills, competencies and knowledge to be successful in JTED program vocation or industry. 15-391(5)(m) Page 2/44-45 and 3/1-3	Yes, this specialized program requires tools and equipment utilized in the electrical field that exceeds a standard classroom. Code compliance resources, wiring schematics, hands-on skills development in wiring electrical motors and commercial equipment are all vital to this program.
Industry provided financial or technical support. 15-391(5)(n) Page 3/4-8	Electrical contractors are on advisory councils and provide technical support to programs.
Demonstrated need for extra funding in order to provide JTED program 15-391(5)(o) Page 3/9-11	This program could not be offered with a high level of technical education due to the level of specialized tools and equipment needed and the specialized training for highly technical training without JTED support. Additionally, the training students receive includes building codes, electrical loading, mechanical components and material utilization that encompasses both commercial and industrial electrical wiring and beyond.

Eligibility		**Yes**	**No**
JTED	The **Industrial Electrician** program meets the requirements for **JTED** compliance and eligibility	x	
CTE Federal Perkins and State Priority	The **Industrial Electrician** program meets the requirements for **Perkins** and is eligible to generate **CTE State Priority funding**.	x	