



Requirements for Career and Technical Education Certificates

Arizona Department of Education – Certification Unit

Industrial and Emerging Technologies

General Information

The Career and Technical Education (CTE) Industrial and Emerging Technologies K-12 Certificate authorizes the holder for a CTE Industrial and Emerging Technologies teaching position.

Glossary of Terms

“Industrial and Emerging Technologies Occupational Area” means work experience in audiovisual communications technologies/technicians; graphic communications (journalism); cosmetology and personal grooming services; electrical engineering technologies/technicians; electromechanical instrumentation and maintenance technologies/technicians; environmental control technologies/technicians; industrial production technologies/technicians; quality control and safety technologies/technicians; mechanical engineering related technologies/technicians; mining and petroleum technologies/technicians; construction engineering technologies; engineering-related technologies; computer engineering technologies/technicians; drafting/design engineering technologies/technicians; security and protective services; mason/masonry; carpenters; electrical and power transmission installers; building/construction finishing, management and inspection; electrical/electronics maintenance and repair technology; heating, air conditioning, ventilation and refrigeration maintenance technology/technician; heavy/industrial equipment maintenance technologies; precision systems maintenance and repair technologies; vehicle maintenance and repair technologies; precision metal working; construction/heavy equipment/earthmoving equipment operation; design and visual communications, general; commercial and advertising art; industrial design; commercial photography; and visual performing arts.

“Verified Work Experience” means written documentation from a current or former supervisor, a current school superintendent, or the Department of Education CTE Programmatic State Supervisor indicating that the applicant has performed work experience in the occupational area.

Application Process

Step 1: Apply for an [Arizona Department of Public Safety Identity Verified Prints \(IVP\)](#) fingerprint clearance card.

Step 2: Have your current or former supervisor, or a current school superintendent, complete and sign the [Verification of Occupational Experience](#) form to document the required clock hours or years of work experience in an industrial and emerging technologies occupational area (not required if applying under Option E).

Step 3: Request official transcript(s) documenting required degree(s) and/or coursework, if required. **Note:** Electronic official transcripts must be emailed to Certification@azed.gov. Official paper transcripts may be mailed to yourself and submitted with the Application for Certification.

Step 4: Submit the Application for Certification and required materials to the Arizona Department of Education – Certification Unit.

Application Checklist

- Completed [Application for Certification](#)
- Appropriate fee (See *Application for Certification*)
- A photocopy of your valid [Arizona Department of Public Safety Identity Verified Prints \(IVP\)](#) fingerprint clearance card.
- Documentation to meet requirements under **Option A, B, C, D, E, or F**.
 - [Verification of Occupational Experience](#) (*Option A, B, C, D, and F*)
 - Official transcript(s) documenting required degree/coursework (*Option A, B, D, and F*)
 - Teaching Evaluation(s) (*Option B*)
 - Photocopy of comparable out-of-state certificate (*Option E*)



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Standard Career and Technical Education, K-12 Industrial and Emerging Technologies Certificate

The Standard CTE Certificate is valid for 12 years and may be renewed.

Requirements for the Standard Career and Technical Education (CTE), K-12 Industrial and Emerging Technologies Certificate are:

1. Completed [Application for Certification](#)
2. Appropriate fee (See *Application for Certification*)
3. A photocopy of your valid [Arizona Department of Public Safety Identity Verified Prints \(IVP\)](#) fingerprint clearance card.
4. Documentation to meet requirements under **Option A, B, C, D, E, or F:**

Option A: Bachelor's degree in an Industrial and Emerging Technologies area. The requirements are:

1. Official transcripts documenting a Bachelor's or more advanced degree in a Industrial and Emerging Technologies area from an accredited institution;
2. Official transcripts documenting thirty (30) semester hours of courses in a Industrial and Emerging Technologies area;
3. Two hundred forty (240) clock hours of [verified work experience](#) in an Industrial and Emerging Technologies occupational area.

Requirements #4, #5, and #6 must be completed within three years from date of issuance of a Standard Industrial and Emerging Technologies Certificate. Please see Allowable Deficiency Requirements below for further information.

4. Fifteen (15) semester hours of courses in professional knowledge in career and technical education, to include any of the following areas: principles/philosophy of career and technical education, developmentally appropriate instructional delivery, facilitation, and methodologies, instructional technology, instructional design and lesson planning, including modifications and accommodations, assessing, monitoring, and reporting progress, the learning environment, including classroom management, teaching students with exceptionalities, or professional responsibility and ethical conduct. Fifteen semester hours may be obtained through Board or Department-CTE approved professional development. Fifteen clock hours of approved professional development equals one semester hour.
5. A passing score on the NES Professional Knowledge Secondary Exam or qualification for a waiver of the exam requirement.
6. Completion of the Arizona and U.S. Constitution Requirements.

Option B: Valid non-CTE Arizona teaching certificate or an Arizona CTE teaching certificate in another content area. The requirements are:

1. A valid Arizona Provisional or Standard teaching certificate for teachers in Birth-Grade 12.
2. Three semester hours of courses in professional knowledge in career and technical education to include any of the following areas: principles/philosophy of career and technical education, developmentally appropriate instructional delivery, facilitation, and methodologies for career and technical education, or instructional technology. Three semester hours may be obtained through Board or Department-CTE



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approved professional development. Fifteen clock hours of approved professional development equals one semester hour; and

3. One year of the most recent teacher evaluation(s) approved by a certificated administrator, or the administrator's designee, in a PreK-12 school setting and issued during the term of the Arizona teaching certificate exhibiting satisfactory performance in the classroom; and
4. Two hundred forty clock hours of [verified work experience](#) in an Industrial and Emerging Technologies occupational area.

Requirements #5, #6, and #7 must be completed within three years from date of issuance of a Standard Industrial and Emerging Technologies Certificate. Please see Allowable Deficiency Requirements below for further information.

5. Nine semester hours of courses in Industrial and Emerging Technologies subject knowledge.
6. A passing score on the NES Professional Knowledge Secondary Exam or qualification for a waiver of the exam requirement.
7. Completion of the Arizona and U.S. Constitution Requirements.

Option C: Business and industry professional. The requirements are:

1. Six thousand clock hours of [verified work experience](#) in an Industrial and Emerging Technologies occupational area.

Requirements #2, #3, and #4 must be completed within three years from date of issuance of a Standard Industrial and Emerging Technologies Certificate. Please see Allowable Deficiency Requirements below for further information.

2. Fifteen (15) semester hours of courses in professional knowledge in career and technical education, to include any of the following areas: principles/philosophy of career and technical education, developmentally appropriate instructional delivery, facilitation, and methodologies, instructional technology, instructional design and lesson planning, including modifications and accommodations, assessing, monitoring, and reporting progress, the learning environment, including classroom management, teaching students with exceptionalities, or professional responsibility and ethical conduct. Fifteen semester hours may be obtained through Board or Department-CTE approved professional development. Fifteen clock hours of approved professional development equals one semester hour.
3. A passing score on the NES Professional Knowledge Secondary Exam or qualification for a waiver of the exam requirement.
4. Completion of the Arizona and U.S. Constitution Requirements.

Option D: Bachelor's degree and an Industrial and Emerging Technologies education teacher preparation program. The requirements are:

1. A Bachelor's or more advanced degree that included completion of a Board approved CTE Industrial and Emerging Technologies teacher preparation program, or a program from an accredited institution offering substantially similar training, addressing the following topics in career and technical education and any others as required by law: principles/philosophy of career and technical education; instructional design and lesson planning, including modifications and accommodations; the learning environment, including classroom management; developmentally appropriate instructional delivery, facilitation and methodologies; assessing, monitoring, and reporting progress; teaching students with exceptionalities; and professional responsibility and ethical conduct.; and
2. Two hundred forty clock hours of [verified work experience](#) in an Industrial and Emerging Technologies occupational area.

Requirements #3 and #4 must be completed within three years from date of issuance of a Standard Industrial and Emerging Technologies Certificate. Please see Allowable Deficiency Requirements below for further information.



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3. A passing score on the NES Professional Knowledge Secondary Exam or qualification for a waiver of the exam requirement.
4. Completion of the Arizona and U.S. Constitution Requirements.

Option E: Out-of-State Certificate. The requirements are:

1. The applicant holds a valid, comparable Standard CTE Industrial and Emerging Technologies certificate from another state and is in good standing with that other state. Submit a photocopy of your valid, comparable CTE Industrial and Emerging Technologies certificate.

Requirements #2 must be completed within three years from date of issuance of a Standard Industrial and Emerging Technologies Certificate. Please see Allowable Deficiency Requirements below for further information.

2. Completion of the Arizona and U.S. Constitution requirements.

Option F: Standard Specialized CTE Industrial and Emerging Technologies. The requirements are:

1. Verification of five years of work experience in an Industrial and Emerging Technologies occupational area.
2. Demonstration of expertise in Industrial and Emerging Technologies through one of the following:
 - a. A Bachelor's, Master's, or Doctoral degree in Industrial and Emerging Technologies; or
 - b. A Bachelor's or more advanced degree and completion of 24 semester hours of coursework in Industrial and Emerging Technologies; or
 - c. An Associate's degree in Industrial and Emerging Technologies; or
 - d. An industry certification, license, or credential in Industrial and Emerging Technologies approved by the Arizona Department of Education CTE Industrial and Emerging Technologies Program Specialist or CTE Program Services Director; or
 - e. Verification of experience teaching Industrial and Emerging Technologies courses for the last two consecutive years, and a total of at least three years, at one or more accredited postsecondary institutions.

Allowable Deficiency Requirements

Applicants may qualify for a Standard CTE Certificate with the following Allowable Deficiencies which must be completed within **three years** from date of issuance:

1. Arizona Constitution: A college course or appropriate examination covering the Provisions and Principles of the Arizona Constitution.
2. U.S. Constitution: A college course or appropriate examination covering the Provisions and Principles of the U.S. Constitution.
3. Professional Knowledge Secondary Exam.

One of the following:

- A. **NES/AEPA:** A passing score on the NES or AEPA Assessment of Professional Knowledge: Secondary exam. Visit www.aepa.nesinc.com for further information; **or**
- B. **Out-of-State Exam:** A passing score on a substantially similar Professional Knowledge Secondary examination from another state or agency. Submit original score reports; **or**
- C. **NBCT:** A valid comparable certificate from the National Board for Professional Teaching Standards. Submit a photocopy of the certificate; **or**
- D. **Teaching Experience:** Three years of full-time teaching experience in any state, including Arizona, **in grades 6-12**. Submit a [Verification of Teaching Experience](#) form signed and



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completed by the District Superintendent or Personnel/HR Director to verify teaching experience. *Note: Experience teaching in a foreign school does not meet this requirement.*

4. Completion of all required semester hours of CTE professional knowledge coursework.

NOTE: If you otherwise qualify but are deficient in the Arizona Constitution, U.S. Constitution, Professional Knowledge Secondary exam, or CTE professional knowledge coursework, you have **three years** under a valid teaching certificate to fulfill these requirements. If you do not complete all allowable requirements within the allowable time frame, your Standard teaching certificate will be **temporarily suspended** and will not be valid for employment until the deficiency is corrected. A temporary suspension for failure to meet these requirements is not considered a disciplinary action and a person shall be allowed to correct the deficiency within the remaining timeframe of the certificate.