



# Requirements for the Career and Technical Certificate Industrial and Emerging Technologies

## Certificate Information:

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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. Additional approved areas or endorsements may not be added to this certificate EXCEPT for the full SEI, the full ESL, or the full Bilingual endorsements. This certificate is valid for 12 years and is renewable.

## Glossary of Terms:

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**“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.

## Administrative Requirement Checklist:

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In order for our office to complete a Substantive review the following Administrative requirements must be submitted as described, if not, the processing of your application could be delayed. Application fees are non-refundable.

- Application & Fee:** Complete the [Application for Certification](#) and submit the appropriate fee.
- IVP Fingerprint Card:** Submit a photocopy of your valid [Arizona Department of Public Safety](#) Identity Verified Prints (IVP) fingerprint card, (not the paper copy of your prints), with your application.

### Documentation to meet requirements under Option A, B, C, D, E, or F.

- Official Transcripts:** Request that your university/college submit official transcripts documenting a Bachelor's degree or more advanced degree directly to [certification@azed.gov](mailto:certification@azed.gov), or by mail to Arizona Department of Education – Certification Unit, P.O. Box 6490, Phoenix, AZ 85005. **(Options A, B, C, D, and F)**
- Foreign Transcripts:** Request that a course-by-course evaluation to be completed by an approved [Foreign Credential Evaluation Agency](#) to identify the equivalent degree in the United States, and submit them directly to [certification@azed.gov](mailto:certification@azed.gov). **(Options A, B, C, D, and F)**
  - *Note:* Transcripts submitted by the applicant via the online portal or by email are not considered official.
- Verification of Occupational Experience **(Option A, B, C, D, and F, submit with application)**
- Teaching Evaluation(s) **(Option B, submit with application)**

--OR--

- **Out-of-State Certificate/License:** Submit a photocopy of your out-of-state certificate/license with your application. **(Option E)**



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## Substantive Requirement:

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### Options A, B, C, D, E, or F:

#### Option A: Bachelor's degree in Industrial and Emerging Technologies area:

1. Official transcripts documenting a Bachelor's or more advanced degree in Industrial and Emerging Technologies area from an accredited institution;
2. Official transcripts documenting thirty (30) semester hours of courses in an 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 the 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.

1. A valid Arizona Provisional or Standard teaching certificate for teachers in Birth through 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-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 the 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 subject knowledge courses in Industrial and Emerging Technologies.
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.



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## Option C: Business and industry professional.

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 the 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.

1. A Bachelor's or a more advanced degree that included completion of a Board approved teacher preparation program in CTE Industrial and Emerging Technologies, 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.
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 the date of issuance of a Standard Industrial and Emerging Technologies Certificate. Please see Allowable Deficiency Requirements below for further information.**

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.

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 the 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.



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## Option F: Standard Specialized CTE Industrial and Emerging Technologies Certificate:

1. Five years of [verified 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

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Applicants may qualify for a Standard CTE Certificate with the following Allowable Deficiencies which must be completed within **three years** from the 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](http://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 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.

Pursuant to section 41-1093.01, Arizona Revised Statutes, an agency shall limit all occupational regulations to regulations that are demonstrated to be necessary to specifically fulfill a public health, safety, or welfare concern. Pursuant to sections 41-1093.02 and 41-1093.03, Arizona Revised Statutes, you have the right to petition this agency to repeal or modify the occupational regulation or bring an action in a court of general jurisdiction to challenge the occupational regulation and to ensure compliance with section 41-1093.01, Arizona Revised Statutes.