Learning that works for Arizona
CTE

Arizona
Department of Education

CTE Administrators Meeting
February 6, 2020
8:00am – 11:30am

Sign-in begins at 8:00am
Meeting starts promptly at 8:30am

Prescott Resort - 1500 E State Rte. 69, Prescott AZ 86301

AGENDA

Welcome – Introductions
ADE Updates:
      JobsEQ
      Presidential Scholar Nominees
      Perkins V, Modifications and Submissions

Updates: ACOVA – CTE Leadership Continuum

Quality Compliance Reviews, Industry Certifications

Updates: CTED – Post-Secondary – Project Change

Program Standards, Career Literacy Standards, and Assessments

Break

Updates: ACTEAZ – Premier Program Series – AZ CTE Curriculum Consortium

Grants, Accountability

School Counselors

CTSO

Closing and Announcements

Next CTE Administrators Meeting will be
Summer Conference, El Conquistador, Tucson, July 19, 2020

ACTEAZ Mid-winter Conference & CTE Administrators Meeting - Room Rates - $99 single/$109 double

CTE Directors – ADE / CTE is providing a new service for Perkins V recipients:

JobsEQ

JobsEQ is Software as a Service (SaaS) that gives you 24-hour online access to our labor market data. Designed and developed with data governance as the priority, their economists and data scientists ensure that their tools provide credible data. JobsEQ helps site selectors and economic developers identify unique workforce characteristics within their communities and provide quality data to clients by describing current industry and demographic trends, and targeted occupation and labor market information. JobsEQ can deliver data-driven empirical evidence that a region's workforce has the skills they need, and uses charts, tables, and maps to visualize the talent pipeline.

Main Features

Employment, wages, and demographic data are all provided at the zip code level of detail. You're able to define your region by a radius or drive-time from an address then quickly and easily create dynamic reports and presentations that couple current regional demographics with occupation-specific data or education data, for example.

- ADE / CTE is providing each Perkins V recipient with one (1) log-in into Jobs EQ.

- The log-in information will be sent to the CTE Director that your district listed in the ADE / CTE Data Portal.

- That person will receive an email from Jobs EQ on February 14, 2020.

- In that email will be instructions to log-in and use the website along with dates for available trainings.

Perkins and CTED Monitoring 2020-2021

Perkins and CTED (Central Programs)	Member Districts (Satellite Programs)
Gila Bend	Gila Bend HS (Perkins only)
Bicentennial USD	Salome HS (Perkins only)
Trivium Preparatory Academy	Trivium Prep (Perkins only) (Charter School)
West-MEC	ALL CENTRAL PROGRAMS
West-MEC	Agua Fria Union
	Buckeye Union
	Deer Valley
	Dysart
	Glendale
	Paradise Valley
	Peoria
	Saddle Mountain
	Tolleson Union
	Wickenburg

Perkins and CTED (Central Programs)	Member Districts (Satellite Programs)
CVIT	ALL CENTRAL PROGRAMS
CVIT	Globe
	Hayden-Winkelman
	Miami
	San Carlos
	Superior
AAEC (Arizona Agribusiness & Equine Center)	AAEC-Estrella Mountain (Perkins only)(Charter Schools)
	AAEC-Mesa
	AAEC-Paradise Valley
	AAEC-Prescott Valley
	AAEC-Red Mountain
	AAEC-South Mountain
CAVIAT	ALL CENTRAL PROGRAMS
CAVIAT	Flagstaff
	Fredonia-Moccasin
	Grand Canyon
	Page
	Williams
NATIVE	ALL CENTRAL PROGRAMS
NATIVE	Chinle
	Ganado
	Kayenta (Monument Valley HS)
	Pinon
	Red Mesa
	Sanders (Valley HS)
	Tuba City
	Window Rock
NAVIT	ALL CENTRAL PROGRAMS
NAVIT	Blue Ridge
	Heber-Overgaard
	Holbrook
	Joseph City
	Payson
	Round Valley
	Show Low
	Snowflake
	St Johns
	Whiteriver (Alchesay HS)
	Winslow
Western Navajo Agency (Greyhills)	Greyhills Academy HS (Perkins only)

CTED Central Only ☐
Perkins + Satellite ☐
Perkins Only ☐

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Arizona Department of Education
Quality and Compliance Monitoring Document (DRAFT)

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District/CTED Name _____

CTE Director/CTED Superintendent _____

CTE Program _____

CTE Program location _____

Program existed for
3 consecutive years ☐

Teacher name(s) _____

Years teaching at site program _____

Date monitored _____

Quality level achieved _____

Final compliance result _____

Arizona Department of Education Quality Compliance Monitoring Document (DRAFT)

The quality and compliance document has nine(9) elements and each element has compliance indicators and quality indicators. To complete the evaluation of compliance indicators, select either yes or no for each compliance indicator that has shown evidence to meet the indicator. To complete the evaluation of quality indicators, use the following simple 0-1 rubric to rate the program on each of the criteria organized under the elements for quality as either "Evident" "1" or "not Evident" "0". Use the boxes marked "Evidence" to record the sources of information and key components considered in order to determine the ratings. After rating each criterion within a particular element for compliance, indicate on the summary page which elements were not met for compliance. After rating each criterion within an element for quality, total the points earned for that quality element. Calculate percentage score by dividing the points earned by the total points possible for that quality element/each element's total possible points. Evidence to be provided will come from a district level or program level. The District level of documentation is indicated in the monitoring document by blue highlight. The program level of documentation is indicated in the monitoring document by white/no highlight

Quality Ratings Scale

Not at all achieved: No evidence of the criterion in the program. **0% to 69%**

Basic Achievement: The criterion is minimally implemented in the program. **70% to 79%**

For example:
- Implementation is just beginning
- Implementation is evident infrequently
- Implementation is evident in a small portion of the program.
- Access is limited to a small segment of students.

Proficient Achievement: The criterion is evident in the program but implementation is uneven or incomplete. **80% to 89%**

For example:
- Only part of the criterion is evident.
- Implementation is evident part of the time, but not on a sustained and regular basis.
- Implementation is evident in portions of the program.
- Access is available to most, but not all students.

Distinguished Achievement: The criterion has been fully implemented throughout the entire program. **90% to 100%**

For example:
- All Parts of the Criterions are evident
- Implementation is evident on a regular and sustained basis.
- Implementation is evident across all portions of the program.
- Access is available to all students.

1. Standards-Aligned and Integrated Curriculum and Engaging Instruction.
This element addresses the development, implementation and revision of the program curriculum, including the relevant knowledge and skills taught in the program and the standards on which they are based.

Compliance Indicator	Yes	No
a. The curriculum shows evidence of: the technical standards, the professional skills, work based learning, CTSO integration, and academics integration being addressed in the curriculum. (CURRICULUM MUST INCLUDE ALL OF THE FOLLOWING) ☐ Technical standards ☐ Professional skills ☐ Work-based learning ☐ Academics integration		
b. The curriculum allows for student application of technical skills meeting the 51% of required lab time. ☐ Lab schedules/Calendar		

Quality Indicator	(1) Evident	(0) Not Evident
c. Current program standards are publicly available and accessible to students, parents/guardians (as appropriate), partners and the public. ☐ Course syllabus / Website / or other evidence please indicate:		
d. The program incorporates multiple forms of assessment, including performance-based assessment where students must demonstrate the application of their technical knowledge and skills. (must include a minimum of two of the following) ☐ TSA Data Results Showing use of assessment ☐ Performance Rubrics ☐ Sample of Assessments ☐ 3rd party Credential Attainment ☐ Sample of Student tests ☐ Student Projects/work		
District:		
e. A written plan is in place for review of curriculum based on data or changes in technical standards.		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

2. **Prepared and Effective Program Staff** This element addresses the qualifications and professional development of program staff, including secondary CTE teachers.		
Compliance Indicator	Yes	No
a. CTE teacher(s) meets appropriate state CTE area specific certification. ☐ Copy of valid CTE teacher(s) certificate		
Quality Indicator	(1) Evident	(0) Not Evident
b. CTE teacher has PD plan in place that include dates for PD for report/certification (must include ALL of the following) ☐ Professional Development Plan - individual ☐ Professional Development log - date and type		
c. CTE teacher(s) has earned an appropriate industry certification to offer to students in the program, earned an advanced degree, or National Board Certified Teacher. (must include at least one of the following) ☐ Externship/Industry Employment ☐ Industry Certificate ☐ Advanced degree ☐ National Board Certification.		
District:		
d. CTE teachers have access to resources and support to implement all elements of a high quality program.		
e. The District has a professional development plan for CTE teachers		
TOTAL POINTS EARNED		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

3. Access and Equity

This element addresses program promotion, student recruitment and strategies that support access and equity for various student populations, including by gender, race and ethnicity, and special population status (such as individuals with disabilities, individuals from economically disadvantaged families and English learners).

Compliance Indicator	Yes	No
District:		
a. Program is inclusive for special populations as drafted in Perkins		
☐ Data on special populations enrollment in program		

Quality Indicator	(1) Evident	(0) Not Evident
b. Students are actively recruited from populations that have been traditionally underrepresented, including by gender, race and ethnicity, economic status and/or special population as defined in Perkins.		
☐ Recruiting/Registration materials and all events that recruit students are free from bias.		
c. Facilities, equipment, technology and materials are comparable, accessible and / or adaptable for students with disabilities.		
☐ Visual Review of Facilities for accessibility, adaptability		
d. Curriculum, instruction, materials and assessments are free from bias and stereotypes associated with race, color, national origin, sex & disabilities and are offered in ways that ensures all students have the opportunity to achieve success in the program, including through accommodations, as appropriate. (must include ALL of the following)		
☐ Recruiting materials and all events that recruit students are free from bias.		
☐ Curriculum, Instructional or assessment materials		
District:		
e. Career guidance is offered to all potential and current program participants in a manner that is free from bias, inclusive and non-discriminatory. (must include at least one of the following)		
☐ District PD for Counselor education on bias, equity and inclusion		
☐ Student Registration materials		
f. Supportive services and supplementary aids, including transportation are available to students with disabilities as well as other members of special populations.		
☐ Identify District Support Services such as supplemental aids, transportation plan, instructional aids etc.(attach documentation)		
g. Appropriate actions are taken to eliminate barriers to extended learning experiences, such as work-based learning, CTSO participation and articulated credit, for all students, including special populations.		
☐ Identify actions taken to eliminate barriers(attach documentation):		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

4. Facilities, Equipment, Technology and Materials This element addresses the alignment, appropriateness and safety of the physical/material components of the program, including laboratories, classrooms, computers, industry-specific equipment, and tools and supplies that support learning.		
Compliance Indicator	Yes	No
a. Facilities, equipment, technology and materials used in the program reflect current workplace, industry and/or occupational practices and requirements and align to technical standards and the program objective.(must include at least one of the following) ☐ Program inventory by site ☐ District/School Inventory system w/asset Numbers, tag numbers for equipment in each classroom/lab, shows Inventory matches equipment tags. *Grants specialist will verify inventory.*		

Quality Indicator	(1) Evident	(0) Not Evident
b. Facilities, equipment, technology and materials meet standards for occupational safety and health in the related industry, as appropriate. (must include ALL of the following) ☐ Visual review of facilities and equipment for safety ☐ Equipment is set up and functional ☐ Equipment and facilities are clean and organized		
District:		
c. District provides appropriate use of facilities, equipment, technology and materials within the program.		
d. Processes are defined and resources provided to regularly inspect, update and replace facilities, equipment, technology and materials.(attach process documentation)		
e. Identify example(s) of the District working with program(s) to maximize student access to relevant facilities, equipment, technology or materials through partnerships or flexible delivery models as appropriate.(attach documentation)		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

5. Business and Community Partnerships

This element addresses business and community partner recruitment, partnership structure and the wide variety of activities partners should be engaged in to support the program and ensure programs are aligned with workforce needs.

Compliance Indicator	Yes	No
a. The program has a formalized, structured approach to coordinating partnerships, such as an advisory board or sector partnership. ☐ Advisory Minutes indicating industry and business partners and community members with follow up		

Quality Indicator	(1) Evident	(0) Not Evident
b. Representatives of the program actively conduct outreach activities to develop partnerships to ensure the program is informed by employer and community needs. (must include at least one of the following) ☐ Business contact log ☐ Advisory Minutes indicating industry and business partners and community members with follow up		
c. Partnerships for the program are formed with a diverse range of stakeholders who represent differing perspectives, including employers from businesses; industry representatives; community, workforce and economic development agencies; and other education stakeholders. ☐ Stakeholder list indicating contact information and position		
d. Partners support the program in tangible ways to meet program goals. ☐ Tangible support received (attach documentation).		
e. Partners help to evaluate the effectiveness of the program in preparing students for further education and careers. ☐ Program evaluation		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

6. Student Career Development:

This element addresses strategies that help students gain career knowledge and engage in education and career planning and decision-making, including career counseling, career assessments, curricula that helps students learn about careers, information about educational opportunities and workforce trends, and job search information and placement services.

Compliance Indicator	Yes	No
District:		
a. District Provides career exploration to the middle grades (anytime during 5-9th grade) (must include at least one of the following)		
☐ Curriculum, lessons		
☐ District Schedule for Career Exploration		
☐ Identify activities that counselors or career specialists are involved to provide awareness and promote CTE career pathways		

Quality Indicator	(1) Evident	(0) Not Evident
b. Students in the program and their parents/guardians (as appropriate) are provided current information on extended learning experiences available through the program, such as work-based learning, CTSO participation and articulated credit.(must include at least one of the following)		
☐ Syllabus		
☐ Career Center on Campus with CTE evidence of career pathways		
c. Students in the program and their parents/guardians (as appropriate) are provided current information on regional occupational trends and outlooks, high-demand and high-wage career opportunities, and the educational pathways that lead to current and projected career opportunities.(must include at least one of the following)		
☐ District resources for students		
☐ Career Center on Campus with CTE evidence of career pathways		
District:		
d. Students in the program have access to job search information, career center, online resources, and counselors (must include at least one of the following)		
☐ Career Center on Campus		
☐ Career specialist are available to assist students		
☐ Counselor assist students through workshops		
e. School counselors have access to professional development and up-to-date information on CTE programs extended learning experiences, education and training options, and regional occupational trends to aid students in education and career planning and decision-making.		
☐ District utilizes CTE funds to support counselor CTE related professional development		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

7. Career and Technical Student Organizations (CTSOs): This element addresses CTSOs, which are organizations for individuals enrolled in CTE programs that engage in activities as an integral part of the instructional program, including the delivery and availability of CTSO opportunities for student skill and leadership development.		

Compliance Indicator	Yes	No
a. The CTSO local chapter is properly registered annually with their approved CTSO association which includes submitting chapter by-laws, a chapter program of work, membership, officer list, and have the CTE teacher serve as the local advisor.(must include ALL of the following) ☐ Chapter bylaws ☐ Local chapter advisor is CTE teacher ☐ Official student membership roster ☐ Program of work		

Quality Indicator	(1) Evident	(0) Not Evident
c. The local chapter program of work provides opportunities for students to interact with business and industry professionals. (must include at least one of the following) ☐ Program of work ☐ End of year summary		
d. The local chapter provides opportunities for students to participate in leadership conferences.(must include at least one of the following) ☐ Program of work ☐ End of year summary ☐ Event registration		
e. The local chapter provides opportunities for students to participate in relevant community and school service activities.(must include at least one of the following) ☐ Program of work ☐ Community service verification ☐ End of year summary		
f. The local chapter provides opportunities for students to participate in leadership development activities.(must include at least one of the following) ☐ Event registration ☐ End of year summary ☐ Program of work		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

8. Work-based Learning:		
This element addresses the delivery of a continuum of work-based learning involving sustained, meaningful interactions with industry or community professionals that foster in-depth, firsthand engagement with the tasks required in a given career field. Experiences may be delivered in workplaces, in the community, at educational institutions and/or virtually, as appropriate, and include a range of activities such as lab simulations, school-based enterprises, internships and apprenticeships.		

Compliance Indicator	Yes	No
a. Work-based learning experiences are accessible to every student at some point during the program. ☐ Documentation of type of work-based learning		
b. Work-based learning experiences are supervised by appropriately certified CTE staff. (Cooperative education or diversified cooperation requires cooperative endorsement.) (must include one of the following) ☐ CTE teacher certification ☐ CTE teacher certification with cooperative education endorsement		

Quality Indicator	(1) Evident	(0) Not Evident
c. Work-based learning experiences are provided through delivery methods that maximize meaningful interaction with businesses industry professionals. (must include ALL of the following) ☐ Student Journals ☐ Training agreement/Plans ☐ Teacher annual Report / review and summary (accomplishments, number of opportunities, picture of events, number of students participating and type of WBL etc.) ☐ Record of student in work-based learning hours		
d. Requirements and procedures for work-based learning experiences are formalized following the AZ work based learning guide. ☐ Work-based learning plans		
e. CTE Program annual report of WBL activities, includes number of students participation and type of Work-based learning (must include at least one of the following) ☐ Teacher annual Report / review and summary (accomplishments, number of opportunities, picture of events, number of students participating and type of WBL etc.) ☐ Record of student in work-based learning working		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

9. Data and Program Improvement at District Level
This element addresses collection, reporting and use of data for continuous evaluation and program improvement, as well as appropriate access to relevant data.

Compliance Indicator	Yes	No
District:		
a. The district meets the state determined level of performance (SDLP)		
☐ District Performance measures Results		
b. Labor market information, student data, and Comprehensive Local Needs Assessment (CLNA) is used to inform program decision-making and support program improvement.		
☐ LNA Comprehensive Local Needs Assessment (CLNA) (CTED's Excluded)		

Quality Indicator	(1) Evident	(0) Not Evident
c. Program meets state determined level of performance (SDLP)(must include ALL of the following)		
☐ Data that includes all students		
☐ Program Performance measures Results		
☐ 1S1 Graduation Rate		
☐ 2S1 Reading/Language Proficiency		
☐ 2S2 Mathematics Proficiency		
☐ 2S3 Science Proficiency		
☐ 3S1 Placement		
☐ 4S1 Nontraditional		
☐ 5S1 Industry Recognized Credential		
☐ 5S4 Technical Skills Assessment		
District:		
d. CTE staff have access to relevant, valid and reliable data disaggregated by gender, race and ethnicity, and special population status, thus facilitating the comparisons of access and performance among subpopulations and with the general student population and the identification of equity gaps on all students participating in the program (must include at least one of the following)		
☐ Teacher use of TSA		
☐ Data accessible to teachers		
e. There is a formal process in place for the systematic and continuous use of data, such as student access and performance data and program evaluation results, for program improvement, including addressing equity gaps.(must include at least one of the following)		
☐ District Professional development plan and documentation of teacher attending PD		
☐ Program improvement plan based on CLNP, TSA data		
f. A district professional development plan is in place to teach CTE staff and teachers how to use and analyze data for program improvement.		
☐ District Professional development plan and documentation of teachers and CTE staff attending PD		
TOTAL POINTS EARNED FOR QUALITY		
TOTAL POINTS POSSIBLE		
PERCENTAGE SCORE (points earned/points possible)		

Notes:

TOTAL for Compliance Indicators	Compliance Indicators Required	Compliance Indicators Evident
1. Standards-aligned and Integrated Curriculum	2	
2. Prepared and Effective Program Staff	1	
3. Access and Equity	1	
4. Facilities, Equipment, Technology and Materials	2	
5. Business and Community Partnerships	1	
6. Student Career Development	1	
7. Career and Technical Student Organizations (CTSOs)	1	
8. Work-based Learning	2	
9. Data and Program Improvement at District Level meets all elements of an approved program (Compliance Indicator for Perkins only Recipients)	2	
TOTAL COMPLIANCE INDICATORS (For state CTED only central program compliance, must meet all compliance indicators for elements 1-8)	<u>13</u>	

Compliance Summary(for indicators not met, District or CTED has **60 days** from date of review to provide evidence)

TOTAL for Quality Indicators	Quality Points Possible	Quality Points Earned
1. Standards-aligned and Integrated Curriculum	3	
2. Prepared and Effective Program Staff	4	
3. Access and Equity	6	
4. Facilities, Equipment, Technology and Materials	4	
5. Business and Community Partnerships	4	
6. Student Career Development	4	
7. Career and Technical Student Organizations (CTSOs)	4	
8. Work-based Learning	3	
9. Data and Program Improvement at District Level meets all elements of an approved program (Compliance Indicator for Perkins only Recipients)	4	
TOTAL QUALITY POINTS	<u>36</u>	

OVERALL QUALITY PERCENTAGE SCORE (points earned/points possible)

Not achieved: 69% and below

Basic: 70% to 79%

Proficient: 80% to 89%

Distinguished: 90% and Above

Notes

Teacher interview notes

    1 Number of years teaching program

    2 Program challenges.

    3 Program Successes

District CTE Director interview notes

    1 District Challenges

    2 District successes

    3 number of years program offered

Evaluator notes

Your current work and educational experience can quickly take you into a satisfying teaching career.

You can lead the next generation into successful paths of learning with your wealth of knowledge and life skills.

And we can show you how..........

CTE Vision:

Develop Arizona's competitive workforce through the power of Career and Technical Education.

CTE Mission:

Career and Technical Education will engage Arizona learners in relevant experiences leading to purposeful and economically viable careers.

https://www.azed.gov/cte/

Wondering what to do with all of your hard-earned work experience?

Consider Becoming a Career & Technical Education teacher!

Want to be a Career & Technical Education Teacher?

- A CTE Teacher Certificate is perfect for people who have retired from their field of work
- Apply your trade & technical skills and experience to teaching
- Have you worked 3 or more years in your field? You could qualify for CTE teacher certification
- Give back to your community passing on your wealth of experience and knowledge

MAKE A DIFFERENCE!

Pathways to CTE Teacher Certification:

- 6000 clock hours of verified work experience in an occupational Area.
- An industry certification, license, or credential in the specified CTE area approved by the appropriate Department of Education

How

- We can help you with the teacher certification process
- We can teach you how to teach through the professional development Premier Series
  https://www.acteaz.org/premier-series/
- The Curriculum Consortium, an online resource that offers lesson plan at your fingertips
- Workshops are available to help you be a great instructor

For more information contact:

Cindy Gutierrez
Director, CTE Program Services
(602) 542-4365
Cindy.Gutierrez@azed.gov

CTE Program Areas:

◆ Accounting ◆ AgriScience ◆ Air Transportation ◆ Aircraft Mechanics ◆ Animation ◆ Architectural Drafting ◆ Automation and Robotics ◆ Automotive Collision Repair ◆ Automotive Technologies ◆ Bioscience ◆ Business Management ◆ Business Operations ◆ Cabinetmaking ◆ Carpentry ◆ Computer Maintenance ◆ Construction Technologies ◆ Cosmetology and Related Services ◆ Culinary Arts ◆ Dental Assisting ◆ Diesel Engine Repair ◆ Digital Communication ◆ Digital Photography ◆ Digital Printing ◆ Early Childhood Education ◆ Education Professions ◆ Electrical and Power Transmission Installation ◆ Electronic Technologies ◆ Electronics Drafting ◆ Emergency Medical Services ◆ Engineering ◆ Fashion Design and Merchandising ◆ Film and TV Production ◆ Finance ◆ Fire Service ◆ Graphic Design ◆ Heating, Ventilation and Air Conditioning ◆ Heavy Equipment Operations ◆ Home Health Aide ◆ Hospitality Management ◆ Interior Design and Merchandising ◆ Laboratory Assisting ◆ Law and Public Safety ◆ Marketing ◆ Mechanical Drafting ◆ Medical Assisting Services ◆ Medical Records Technologies ◆ Mental and Social Health Technician ◆ Music and Audio Production ◆ Network Security ◆ Nursing Services ◆ Pharmacy Support Services ◆ Precision Machining ◆ Software and App Design ◆ Sports Medicine and Rehabilitation ◆ Stagecraft ◆ Therapeutic Massage ◆ Veterinary Assisting ◆ Welding Technologies ◆

https://www.azed.gov/cte/programs/
http://www.azed.gov/educator-certification/

Monitoring Guidelines for Program Specialist
Federal Perkins V and State CTED

Section 122(d)(2) of Perkins V-ADE will determine compliance and quality of CTE programs and Section 15-393, V of ARS-Beginning in 2020 and every five years thereafter, the career and technical education division of the department of education shall review career and technical education district (CTED) programs and career technical education courses to ensure compliance, quality and eligibility. Any program or course deemed to not meet the requirement set forth by law shall not be funded for the current school year and hall be removed from the approved program and course list for the purpose of funding. The career and technical education division may establish a staggered schedule for reviewing each career technical education district.

1. REVIEW MONITORING ROTATION
   - ☐ Coordinate with Program Specialist monitoring team and Grant Specialist. First Program Specialist listed is the team lead and coordinator for monitoring visits.

2. EMAIL OFFICAL LETTER - CTE ADMINISTRATORS, CTED AND DISTRICT SUPERINTENDENTS
   - ☐ Offer for technical assistance prior to visit
   - ☐ Send official letter via email with dates of review and onsite visit
   - ☐ Set a due date for upload of documentation 45 days prior to onsite visit
   - ☐ Include copies of guidance document and monitoring document

3. COMPLETE MONITORING DOCUMENT
   - ☐ All evidence will be submitted by the LEA or CTED prior to the on-site visit
   - ☐ For each individual program, evidence must be reviewed and a walk through of all facilities must occur
   - ☐ One monitoring document will be used per program
   - ☐ Check the appropriate box next to each type of evidence presented for each indicator. *(Evaluator may add additional notes as necessary)*
   - ☐ *Save file following File Management protocol designated*

4. FINISH PRELIMINARY MONITORING DOCUMENTS ONSITE AS NEEDED
   - ☐ Finalize the preliminary document with call to action needed
   - ☐ Share preliminary findings for review, in electronic form, with CTE Directors and CTED representatives

5. CONCLUDE REVIEW

   COMPLIANT PROGRAM:
   - ☐ Compose final results and send summary letter within 10 business days from the visit to the CTED and local district. *Send in PDF format only.*
   - ☐ *Save summary letter in file following File Management protocol designated*

   NON-COMPLIANT PROGRAM:
   - ☐ If a program does not meet the required elements, state that the CTED or local district must submit appropriate documentation or a copy of their

Improvement plan within 60 days of notice to become compliant. *Due date will be stated on this communication.*
- ☐ Once program documents have been submitted for review and found compliant, follow up with summary letter indicating compliance.
- ☐ *Save summary letter in file following File Management protocol designated*

COMPLIANT AND NON-COMPLIANT PROGRAMS:
- ☐ Send a copy of the CTED ONLY CENTRAL programs monitoring document results to the CTED Superintendents
- ☐ Charter Districts need a Summary Letter sent to: charterschoolboard@asbcs.az.gov
- ☐ Prepare a typed Summary Letter to the local CTE Director and district Superintendent with the results and send via email with a "Read" and "Received" receipt.
- ☐ If satellite, include CTED Superintendent.

NEW EVIDENCE FOR NON-COMPLIANT PROGRAMS:
- ☐ Review submission documentation
- ☐ *Save all documentation in File Management protocol designated*
- ☐ If compliant or non-compliant after careful review of submitted documentation, email summary letter to the district CTE Administrator and CTED within 5 business days

6. <u>DATA MANAGEMENT</u>
- ☐ *Save all documentation in File Management protocol designated*

CIP Code	Program Name	Credential	A-F Approved 19-20	AZ Industry Incentive Fund 19-20	CTED 19-20
52.0300.00	Accounting	Assessment of Skills and Knowledge (A*S*K) – Concepts of Finance	Yes	Yes	Yes
52.0300.00	Accounting	Assessment of Skills and Knowledge (A*S*K) – Fundamental Business Concepts	Yes	Yes	Yes
52.0300.00	Accounting	Assessment of Skills and Knowledge (A*S*K) – Fundamentals of Ethics	Yes	Yes	Yes
52.0300.00	Accounting	Certificate of Proficiency: Bookkeeping (CTED/Eastern Arizona College only)	No	No	Yes
52.0300.00	Accounting	Microsoft Office Specialist (MOS) – Associate for 2016	Yes	Yes	Yes
52.0300.00	Accounting	Microsoft Office Specialist (MOS) – Associate for 2019	Yes	Yes	Yes
52.0300.00	Accounting	Microsoft Office Specialist (MOS) – Associate for Office 365	Yes	Yes	Yes
52.0300.00	Accounting	Microsoft Office Specialist (MOS) – Expert for 2016	Yes	Yes	Yes
52.0300.00	Accounting	Microsoft Office Specialist (MOS) – Expert for 2019	Yes	Yes	Yes
52.0300.00	Accounting	Microsoft Office Specialist (MOS) – Expert for Office 365	Yes	Yes	Yes
52.0300.00	Accounting	NAFTrack Certification – Academy of Finance	Yes	Yes	Yes
52.0300.00	Accounting	QuickBooks Certified User (QBCU) Desktop – 2019 Pro	Yes	Yes	Yes
52.0300.00	Accounting	QuickBooks Certified User (QBCU) Desktop 2016	Yes	Yes	Yes
52.0300.00	Accounting	QuickBooks Certified User (QBCU) Desktop 2017	Yes	Yes	Yes
52.0300.00	Accounting	QuickBooks Certified User (QBCU) Online – U.S.	Yes	Yes	Yes
01.0100.90	Agribusiness Systems	Agricultural Biotechnology Certification	No	No	Yes
01.0100.90	Agribusiness Systems	Agricultural Technician Certification	No	No	Yes
01.0100.90	Agribusiness Systems	Animal Care Training	No	No	Yes
01.0100.90	Agribusiness Systems	Arizona Agriculture Skills & Competencies Certificate	Yes	No	Yes
01.0100.90	Agribusiness Systems	Arizona Certified Nursery Professional (ACNP)	Yes	No	Yes
01.0100.90	Agribusiness Systems	Arizona Landscape Contractors Association (ALCA)	Yes	No	Yes
01.0100.90	Agribusiness Systems	Benz School of Floral Design Principles of Floral Design Certification	Yes	No	Yes
01.0100.90	Agribusiness Systems	Global Logistics Associate	No	No	Yes
01.0100.90	Agribusiness Systems	OSHA 10 – Agriculture	Yes	No	Yes
01.0100.90	Agribusiness Systems	OSHA 10 – Construction Industry	Yes	No	Yes
01.0100.90	Agribusiness Systems	OSHA 10 – General	Yes	No	Yes
01.0100.90	Agribusiness Systems	Section 608 Technician Environmental Protection Agency (EPA)	No	No	Yes
01.0100.90	Agribusiness Systems	Youth Quality Care of Animals	No	No	Yes
01.0000.00	AgriScience	Agricultural Biotechnology Certification	No	No	Yes
01.0000.00	AgriScience	Agricultural Technician Certification	No	No	Yes
01.0000.00	AgriScience	American Meat & Science Association Meat Evaluation Certification	Yes	No	Yes
01.0000.00	AgriScience	American Meat Science Association Food Safety and Science Certification	Yes	No	Yes
01.0000.00	AgriScience	Animal Care Training	No	No	Yes
01.0000.00	AgriScience	Arizona Agriculture Skills & Competencies Certificate	Yes	No	Yes
01.0000.00	AgriScience	Arizona Certified Nursery Professional (ACNP)	Yes	No	Yes
01.0000.00	AgriScience	Arizona Landscape Contractor Association (ALCA)	Yes	No	Yes
01.0000.00	AgriScience	Bayer Crop Science Plant Science Certification	Yes	No	Yes
01.0000.00	AgriScience	Benz School of Floral Design Principles of Floral Design Certification	Yes	No	Yes
01.0000.00	AgriScience	Certified Veterinary Assistant	Yes	No	Yes
01.0000.00	AgriScience	Elanco Veterinary Medical Applications Certification	Yes	No	Yes
01.0000.00	AgriScience	Fundamentals of Animal Science Certification	Yes	No	Yes
01.0000.00	AgriScience	Global Logistics Associate	No	No	Yes
01.0000.00	AgriScience	National Coalition of Certification Centers (NC3) – Snap-On – Horticulture	Yes	No	Yes
01.0000.00	AgriScience	OSHA 10 – Agriculture	Yes	No	Yes
01.0000.00	AgriScience	OSHA 10 – Construction Industry	Yes	No	Yes
01.0000.00	AgriScience	OSHA 10 – General	Yes	No	Yes
01.0000.00	AgriScience	Section 608 Technician Environmental Protection Agency (EPA)	No	No	Yes
01.0000.00	AgriScience	Water Harvesting Certification	No	No	Yes
01.0000.00	AgriScience	Worker Protection on Standard Training Handler Verification Card	No	No	Yes
01.0000.00	AgriScience	Youth Quality Care of Animals	No	No	Yes
49.0100.00	Air Transportation	Federal Aviation Administration (FAA) – Control Tower Operator	Yes	No	Yes
49.0100.00	Air Transportation	Federal Aviation Administration (FAA) – Fundamentals of Instrumentation	Yes	No	Yes
49.0100.00	Air Transportation	Federal Aviation Administration (FAA) – Ground Instruction Basic	Yes	No	Yes
49.0100.00	Air Transportation	Federal Aviation Administration (FAA) – Ground School	Yes	No	Yes
49.0100.00	Air Transportation	Federal Aviation Administration (FAA) – Instrument Pilot	Yes	No	Yes
49.0100.00	Air Transportation	Federal Aviation Administration (FAA) – Private Pilot	Yes	No	Yes
49.0100.00	Air Transportation	Federal Aviation Administration (FAA) – Remote Pilot Certificate (Unmanned Aircraft Systems)	Yes	No	Yes
47.0600.50	Aircraft Mechanics	Federal Aviation Administration (FAA) – Airframe Mechanic	Yes	No	Yes
47.0600.50	Aircraft Mechanics	Federal Aviation Administration (FAA) – Powerplant Mechanic	Yes	No	Yes
47.0600.50	Aircraft Mechanics	National Coalition of Certification Centers (NC3) – Mechanical and Electrical Torque	Yes	No	Yes
47.0600.50	Aircraft Mechanics	National Coalition of Certification Centers (NC3) – Multimeter	Yes	No	Yes
01.0100.40	Animal Systems	American Meat & Science Association Meat Evaluation Certification	Yes	No	Yes
01.0100.40	Animal Systems	American Meat Science Association Food Safety and Science Certification	Yes	No	Yes
01.0100.40	Animal Systems	Arizona Agriculture Skills & Competencies Certificate	Yes	No	Yes

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01.0100.40	Animal Systems	Certified Veterinary Assistant	No	No	Yes
01.0100.40	Animal Systems	Elanco Veterinary Medical Applications Certification	Yes	No	Yes
01.0100.40	Animal Systems	Fundamentals of Animal Science Certification	Yes	No	Yes
01.0100.40	Animal Systems	OSHA 10 – Agriculture	Yes	No	Yes
01.0100.40	Animal Systems	OSHA 10 – Construction Industry	Yes	No	Yes
01.0100.40	Animal Systems	OSHA 10 – General	Yes	No	Yes
01.0100.40	Animal Systems	Youth Quality Care of Animals	No	No	Yes
10.0200.60	Animation	Adobe Certified Associate (ACA) Creative Cloud – Video Design Specialist	Yes	Yes	Yes
10.0200.60	Animation	Adobe Certified Associate (ACA) Creative Cloud – Visual Design Specialist	Yes	Yes	Yes
10.0200.60	Animation	Adobe Certified Associate (ACA) Creative Cloud – Web Design Specialist	Yes	Yes	Yes
10.0200.60	Animation	Autodesk Certified User (ACU) – 3Ds Max	Yes	Yes	Yes
10.0200.60	Animation	Autodesk Certified User (ACU) – Maya	Yes	Yes	Yes
10.0200.60	Animation	Certified Expert Technical Artist – Rigging and Animation	Yes	Yes	Yes
15.1300.20	Architectural Drafting	ArcGIS Certified Desktop Entry Certification	No	Yes	Yes
15.1300.20	Architectural Drafting	Autodesk Certified Professional	No	Yes	Yes
15.1300.20	Architectural Drafting	Autodesk Certified User (ACU) – 3Ds Max	Yes	Yes	Yes
15.1300.20	Architectural Drafting	Autodesk Certified User (ACU) – Maya	Yes	Yes	Yes
15.1300.20	Architectural Drafting	Certificate of Proficiency: Computer Assisted Design and Drafting Technology – Level I (CTED/Eastern Arizona College only)	No	No	Yes
15.1300.20	Architectural Drafting	Certificate of Proficiency: Drafting (CTED/Northland Pioneer College only)	No	No	Yes
15.1300.20	Architectural Drafting	Certified Apprentice Drafter – High School	No	Yes	Yes
15.1300.20	Architectural Drafting	Certified Drafter – Advanced High School	No	Yes	Yes
15.1300.20	Architectural Drafting	Certified SolidWorks Associate (CSWA)	Yes	Yes	Yes
15.1300.20	Architectural Drafting	Certified SolidWorks Professional (CSWP)	Yes	Yes	Yes
48.0500.20	Automation and Robotics	Certificate of Proficiency: Industrial Electrical Motors and PLCs (CTED/Northland Pioneer College only)	No	No	Yes
48.0500.20	Automation and Robotics	Certificate of Proficiency: Industrial Mechanics Fluid Power Specialization (CTED/Northland Pioneer College only)	No	No	Yes
48.0500.20	Automation and Robotics	Certified SolidWorks Associate (CSWA)	Yes	Yes	Yes
48.0500.20	Automation and Robotics	Electronics Systems Professional Alliance (ESPA) – Electronics Systems Technician (EST)	No	Yes	Yes
48.0500.20	Automation and Robotics	International Society of Automation (ISA) – Certified Automation Professional	No	Yes	Yes
48.0500.20	Automation and Robotics	International Society of Automation (ISA) – Certified Control Systems Technician	No	Yes	Yes
48.0500.20	Automation and Robotics	IPC and the Wiring Harness Manufacturer's Association (WHMA) J-STD-001 Certification	No	Yes	Yes
48.0500.20	Automation and Robotics	Machining Manufacturing Skill Standards Council (MSSC) – Certified Production Technician (CPT)	Yes	Yes	Yes
48.0500.20	Automation and Robotics	Machining Manufacturing Skill Standards Council (MSSC) – Green Production Certification	Yes	Yes	Yes
48.0500.20	Automation and Robotics	National Career Readiness Certificate (NCRC) Level 1	No	No	Yes
48.0500.20	Automation and Robotics	National Center for Construction Education and Research (NCCER) – Electronics Systems Technician (EST) – Level 1	Yes	Yes	Yes
48.0500.20	Automation and Robotics	National Center for Construction Education and Research (NCCER) – Electronics Systems Technician (EST) – Level 2	Yes	Yes	Yes
48.0500.20	Automation and Robotics	National Institute for Metalworking Skills (NIMS) – Level 1	Yes	No	Yes
48.0500.20	Automation and Robotics	National Occupational Competency Testing Institute (NOCTI) – FANUC Certified Robot Operator 1	No	Yes	Yes
48.0500.20	Automation and Robotics	National Occupational Competency Testing Institute (NOCTI) – FANUC Certified Robot Operator 2	No	Yes	Yes
48.0500.20	Automation and Robotics	National Occupational Competency Testing Institute (NOCTI) – FANUC Certified Robot Technician 1	No	Yes	Yes
48.0500.20	Automation and Robotics	National Occupational Competency Testing Institute (NOCTI) – FANUC Certified Robot Technician 2	No	Yes	Yes
48.0500.20	Automation and Robotics	OpenSpan Developer	No	Yes	Yes
48.0500.20	Automation and Robotics	Robotics Engineering Curriculum (REC) – ROBOTC	No	No	Yes
47.0600.30	Automotive Collision Repair	ASE/ICar Student Certification – Electrical	Yes	No	Yes
47.0600.30	Automotive Collision Repair	ASE/ICar Student Certification – Mechanical	Yes	No	Yes
47.0600.30	Automotive Collision Repair	ASE/ICar Student Certification – Non-Structural Repair	Yes	No	Yes
47.0600.30	Automotive Collision Repair	ASE/ICar Student Certification – Paint and Refinishing	Yes	No	Yes
47.0600.30	Automotive Collision Repair	ICar Student Certification – Platinum Series	Yes	No	Yes
47.0600.30	Automotive Collision Repair	National Coalition of Certification Centers (NC3) – Automotive Scanner Diagnostics	Yes	No	Yes
47.0600.30	Automotive Collision Repair	National Coalition of Certification Centers (NC3) – Mechanical and Electrical Torque	Yes	No	Yes
47.0600.30	Automotive Collision Repair	National Coalition of Certification Centers (NC3) – Multimeter	Yes	No	Yes
47.0600.30	Automotive Collision Repair	National Coalition of Certification Centers (NC3) – Wheel Service and Alignment	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – A1 – Engine Repair	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – A2 – Automatic Transmission/Transaxle	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – A3 – Manual Drive Train & Axles	Yes	No	Yes

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47.0600.20	Automotive Technologies	ASE Student Certifications – A4 – Suspension & Steering	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – A5 – Brakes	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – A6 – Electrical/Electronic Systems	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – A7 – Heating & Air Conditioning	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – A8 – Engine Performance	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – Automobile Service Technology	Yes	No	Yes
47.0600.20	Automotive Technologies	ASE Student Certifications – G1/Maintenance and Light Repair	Yes	No	Yes
47.0600.20	Automotive Technologies	Certificate of Proficiency: Automotive Technician (CTED/Eastern Arizona College only)	No	No	Yes
47.0600.20	Automotive Technologies	Certificate: Advanced Automotive Technology (CTED/Mohave Community College only)	No	No	Yes
47.0600.20	Automotive Technologies	Certificate: Basic Automotive Technology (CTED/Mohave Community College only)	No	No	Yes
47.0600.20	Automotive Technologies	National Coalition of Certification Centers (NC3) – Automotive Scanner Diagnostics	Yes	No	Yes
47.0600.20	Automotive Technologies	National Coalition of Certification Centers (NC3) – Mechanical and Electrical Torque	Yes	No	Yes
47.0600.20	Automotive Technologies	National Coalition of Certification Centers (NC3) – Multimeter	Yes	No	Yes
47.0600.20	Automotive Technologies	National Coalition of Certification Centers (NC3) – Wheel Service and Alignment	Yes	No	Yes
41.0100.00	Bioscience	Biotechnician Assistance Credential (BACE)	Yes	Yes	Yes
41.0100.00	Bioscience	OSHA 10 – Healthcare	Yes	Yes	Yes
52.0200.00	Business Management	Assessment of Skills and Knowledge (A*S*K) – Concepts of Entrepreneurship and Management	Yes	yes	Yes
52.0200.00	Business Management	Assessment of Skills and Knowledge (A*S*K) – Concepts of Finance	Yes	Yes	Yes
52.0200.00	Business Management	Assessment of Skills and Knowledge (A*S*K) – Fundamental Business Concepts	Yes	Yes	Yes
52.0200.00	Business Management	Assessment of Skills and Knowledge (A*S*K) – Fundamental Marketing Concepts	Yes	Yes	Yes
52.0200.00	Business Management	Assessment of Skills and Knowledge (A*S*K) – Fundamentals of Ethics	Yes	Yes	Yes
52.0200.00	Business Management	Certificate of Applied Science: Entrepreneurship (CTED/Northland Pioneer College only)	No	No	Yes
52.0200.00	Business Management	Microsoft Office Specialist (MOS) – Associate for 2016	Yes	Yes	Yes
52.0200.00	Business Management	Microsoft Office Specialist (MOS) – Associate for 2019	Yes	Yes	Yes
52.0200.00	Business Management	Microsoft Office Specialist (MOS) – Associate for Office 365	Yes	Yes	Yes
52.0200.00	Business Management	Microsoft Office Specialist (MOS) – Expert for 2016	Yes	Yes	Yes
52.0200.00	Business Management	Microsoft Office Specialist (MOS) – Expert for 2019	Yes	Yes	Yes
52.0200.00	Business Management	Microsoft Office Specialist (MOS) – Expert for Office 365	Yes	Yes	Yes
52.0200.00	Business Management	NAFTrack Certification – Academy of Finance	Yes	Yes	Yes
52.0200.00	Business Management	QuickBooks Certified User (QBCU) Desktop 2016	Yes	Yes	Yes
52.0200.00	Business Management	QuickBooks Certified User (QBCU) Desktop 2017	Yes	Yes	Yes
52.0200.00	Business Management	QuickBooks Certified User (QBCU) Desktop 2019 Pro	Yes	Yes	Yes
52.0200.00	Business Management	QuickBooks Certified User (QBCU) Online – U.S.	Yes	Yes	Yes
52.0200.00	Business Management	RISE-Up – Customer Service and Sales	Yes	Yes	Yes
52.0200.00	Business Management	RISE-Up – Retail Industry Fundamentals	Yes	Yes	Yes
52.0200.00	Business Management	RISE-Up – The Business of Retail	Yes	Yes	Yes
52.0400.00	Business Operations	Assessment of Skills and Knowledge (A*S*K) – Concepts of Entrepreneurship and Management	Yes	Yes	Yes
52.0400.00	Business Operations	Assessment of Skills and Knowledge (A*S*K) – Concepts of Finance	Yes	Yes	Yes
52.0400.00	Business Operations	Assessment of Skills and Knowledge (A*S*K) – Fundamental Business Concepts	Yes	Yes	Yes
52.0400.00	Business Operations	Assessment of Skills and Knowledge (A*S*K) – Fundamental Marketing Concepts	Yes	Yes	Yes
52.0400.00	Business Operations	Assessment of Skills and Knowledge (A*S*K) – Fundamentals of Ethics	Yes	Yes	Yes
52.0400.00	Business Operations	Microsoft Office Specialist (MOS) – Associate for 2016	Yes	Yes	Yes
52.0400.00	Business Operations	Microsoft Office Specialist (MOS) – Associate for 2019	Yes	Yes	Yes
52.0400.00	Business Operations	Microsoft Office Specialist (MOS) – Associate for Office 365	Yes	Yes	Yes
52.0400.00	Business Operations	Microsoft Office Specialist (MOS) – Expert for 2016	Yes	Yes	Yes
52.0400.00	Business Operations	Microsoft Office Specialist (MOS) – Expert for 2019	Yes	Yes	Yes
52.0400.00	Business Operations	Microsoft Office Specialist (MOS) – Expert for Office 365	Yes	Yes	Yes
52.0400.00	Business Operations	NAFTrack Certification – Academy of Finance	Yes	Yes	Yes
52.0400.00	Business Operations	Occupational Certificate: Office Administration (CTED/Arizona Western College only)	No	No	Yes
52.0400.00	Business Operations	QuickBooks Certified User (QBCU) – Desktop/Online	Yes	Yes	Yes
46.0400.40	Cabinetmaking	Career Connections Certification – Level 1	No	Yes	Yes
46.0400.40	Cabinetmaking	Career Connections Certification – Level 2	No	No	Yes
46.0400.40	Cabinetmaking	Career Connections Certification – Level 3	No	No	Yes
46.0400.40	Cabinetmaking	National Center for Construction Education and Research (NCCER) – Cabinetmaking	Yes	Yes	Yes
46.0400.40	Cabinetmaking	National Center for Construction Education and Research (NCCER) – Carpentry – Level 1	Yes	Yes	Yes
46.0400.40	Cabinetmaking	National Center for Construction Education and Research (NCCER) – Carpentry – Level 2	Yes	Yes	Yes
46.0400.40	Cabinetmaking	National Center for Construction Education and Research (NCCER) – Core	Yes	Yes	Yes
46.0400.40	Cabinetmaking	National Coalition of Certification Centers (NC3) – Building Performance	Yes	Yes	Yes
46.0400.40	Cabinetmaking	National Coalition of Certification Centers (NC3) – Precision Measuring	Yes	Yes	Yes
46.0400.40	Cabinetmaking	OSHA 10 – Construction Industry	Yes	Yes	Yes
46.0400.40	Cabinetmaking	Woodwork Career Alliance Passport – Blue Credential	No	Yes	Yes

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46.0400.40	Cabinetmaking	Woodwork Career Alliance Passport – Green Credential	No	Yes	Yes
46.0400.30	Carpentry	Career Connections Certification – Level 1	No	Yes	Yes
46.0400.30	Carpentry	Career Connections Certification – Level 2	No	No	Yes
46.0400.30	Carpentry	Career Connections Certification – Level 3	No	No	Yes
46.0400.30	Carpentry	National Center for Construction Education and Research (NCCER) – Carpentry – Level 1	Yes	Yes	Yes
46.0400.30	Carpentry	National Center for Construction Education and Research (NCCER) – Carpentry – Level 2	Yes	Yes	Yes
46.0400.30	Carpentry	National Center for Construction Education and Research (NCCER) – Core	Yes	Yes	Yes
46.0400.30	Carpentry	OSHA 10 – Construction Industry	Yes	Yes	Yes
15.1200.20	Computer Maintenance	CompTIA – A+	Yes	Yes	Yes
15.1200.20	Computer Maintenance	CompTIA – IT Fundamentals	Yes	Yes	Yes
15.1200.20	Computer Maintenance	CompTIA – Network+	Yes	Yes	Yes
15.1200.20	Computer Maintenance	CompTIA – Security +	Yes	Yes	Yes
15.1200.20	Computer Maintenance	CompTIA 220-901 Certification exam	No	No	Yes
15.1200.20	Computer Maintenance	CompTIA 220-902 Certification exam	No	No	Yes
15.1200.20	Computer Maintenance	Desktop Pro (Word, Excel, PowerPoint, Access, Computer Basics)	No	No	Yes
15.1200.20	Computer Maintenance	Microsoft Office Specialist (MOS) – Associate for 2016	Yes	Yes	Yes
15.1200.20	Computer Maintenance	Microsoft Office Specialist (MOS) – Associate for 2019	Yes	Yes	Yes
15.1200.20	Computer Maintenance	Microsoft Office Specialist (MOS) – Associate for Office 365	Yes	Yes	Yes
15.1200.20	Computer Maintenance	Microsoft Office Specialist (MOS) – Expert for 2016	Yes	Yes	Yes
15.1200.20	Computer Maintenance	Microsoft Office Specialist (MOS) – Expert for 2019	Yes	Yes	Yes
15.1200.20	Computer Maintenance	Microsoft Office Specialist (MOS) – Expert for Office 365	Yes	Yes	Yes
15.1200.20	Computer Maintenance	Occupational Certificate: Computer Information Systems (CTED/Arizona Western College only)	No	No	Yes
15.1200.20	Computer Maintenance	TestOut PC Pro Certification	No	Yes	Yes
46.0400.20	Construction Technologies	Independent Electrical Contractors (IEC) – Year 1 Apprenticeship Certificate	Yes	Yes	Yes
46.0400.20	Construction Technologies	National Center for Construction Education and Research (NCCER) – Construction Technologies	Yes	Yes	Yes
46.0400.20	Construction Technologies	National Center for Construction Education and Research (NCCER) – Core	Yes	Yes	Yes
46.0400.20	Construction Technologies	National Coalition of Certification Centers (NC3) – Building Performance	Yes	Yes	Yes
46.0400.20	Construction Technologies	National Coalition of Certification Centers (NC3) – Multimeter	Yes	Yes	Yes
46.0400.20	Construction Technologies	National Coalition of Certification Centers (NC3) – Precision Measuring	Yes	Yes	Yes
46.0400.20	Construction Technologies	OSHA 10 – Construction Industry	Yes	Yes	Yes
12.0400.00	Cosmetology and Related Services	Arizona Aesthetician License	Yes	No	Yes
12.0400.00	Cosmetology and Related Services	Arizona Cosmetology License	Yes	No	Yes
12.0400.00	Cosmetology and Related Services	Hairstyling License	Yes	No	Yes
12.0400.00	Cosmetology and Related Services	OSHA 10 – Healthcare	Yes	No	Yes
12.0500.00	Culinary Arts	Certificate: Baking and Pastry (CTED/Mohave Community College only)	No	No	Yes
12.0500.00	Culinary Arts	Certified Fundamentals Cook (CFC)	Yes	No	Yes
12.0500.00	Culinary Arts	Certified Fundamentals Pastry Cook (CFPC)	Yes	No	Yes
12.0500.00	Culinary Arts	National ProStart Certificate of Achievement (COA)	Yes	No	Yes
12.0500.00	Culinary Arts	ServSafe Food Protection Manager	Yes	No	Yes
51.0600.00	Dental Assisting	OSHA 10 – Healthcare	Yes	Yes	Yes
51.0600.00	Dental Assisting	Radiation Health and Safety (RHS)	Yes	Yes	Yes
47.0600.40	Diesel Engine Repair	ASE Medium/Heavy Truck Certification – T2 Diesel Engines	Yes	No	Yes
47.0600.40	Diesel Engine Repair	ASE Medium/Heavy Truck Certification – T3 drive train	Yes	No	Yes
47.0600.40	Diesel Engine Repair	ASE Medium/Heavy Truck Certification – T4 Brakes	Yes	No	Yes
47.0600.40	Diesel Engine Repair	ASE Medium/Heavy Truck Certification – T5 Suspension and Steering	Yes	No	Yes
47.0600.40	Diesel Engine Repair	ASE Medium/Heavy Truck Certification – T6 Electrical/Electronics Systems	Yes	No	Yes
47.0600.40	Diesel Engine Repair	ASE Medium/Heavy Truck Certification – T7 HVAC	Yes	No	Yes
47.0600.40	Diesel Engine Repair	ASE Medium/Heavy Truck Certification – T8 Preventative Maintenance Inspection	Yes	No	Yes
47.0600.40	Diesel Engine Repair	National Coalition of Certification Centers (NC3) – Automotive Scanner Diagnostics	Yes	No	Yes
47.0600.40	Diesel Engine Repair	National Coalition of Certification Centers (NC3) – Diesel Scanner Diagnostic	Yes	No	Yes
47.0600.40	Diesel Engine Repair	National Coalition of Certification Centers (NC3) – Mechanical and Electrical Torque	Yes	No	Yes
47.0600.40	Diesel Engine Repair	National Coalition of Certification Centers (NC3) – Multimeter	Yes	No	Yes
47.0600.40	Diesel Engine Repair	National Coalition of Certification Centers (NC3) – Wheel Service and Alignment	Yes	No	Yes
10.0200.40	Digital Communication	Adobe Certified Associate (ACA) Creative Cloud – Video Design Specialist	Yes	Yes	Yes
10.0200.40	Digital Communication	Adobe Certified Associate (ACA) Creative Cloud – Visual Design Specialist	Yes	Yes	Yes
10.0200.40	Digital Communication	Adobe Certified Associate (ACA) Creative Cloud – Web Design Specialist	Yes	Yes	Yes
10.0200.40	Digital Communication	PrintED/SkillsUSA Student Certification – Digital File Preparation/Digital File Output	Yes	Yes	Yes
10.0200.40	Digital Communication	PrintED/SkillsUSA Student Certification – Digital Production Printing	Yes	Yes	Yes
10.0200.40	Digital Communication	PrintED/SkillsUSA Student Certification – Graphic Design	Yes	Yes	Yes

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10.0200.40	Digital Communication	PrintED/SkillsUSA Student Certification – Introduction to Graphic Communication	Yes	Yes	Yes
10.0200.40	Digital Communication	PrintED/SkillsUSA Student Certification – Offset Press Operations/Binding and Finishing	Yes	Yes	Yes
10.0200.40	Digital Communication	PrintED/SkillsUSA Student Certification – Screen Printing Technology	Yes	Yes	Yes
10.0200.50	Digital Photography	Adobe Certified Associate (ACA) Creative Cloud – Video Design Specialist	Yes	Yes	Yes
10.0200.50	Digital Photography	Adobe Certified Associate (ACA) Creative Cloud – Visual Design Specialist	Yes	Yes	Yes
10.0200.50	Digital Photography	Adobe Certified Associate (ACA) Creative Cloud – Web Design Specialist	Yes	Yes	Yes
10.0200.20	Digital Printing	Adobe Certified Associate (ACA) Creative Cloud – Video Design Specialist	Yes	Yes	Yes
10.0200.20	Digital Printing	Adobe Certified Associate (ACA) Creative Cloud – Visual Design Specialist	Yes	Yes	Yes
10.0200.20	Digital Printing	Adobe Certified Associate (ACA) Creative Cloud – Web Design Specialist	Yes	Yes	Yes
10.0200.20	Digital Printing	PrintED/SkillsUSA Student Certification – Digital File Preparation/Digital File Output	Yes	Yes	Yes
10.0200.20	Digital Printing	PrintED/SkillsUSA Student Certification – Digital Production Printing	Yes	Yes	Yes
10.0200.20	Digital Printing	PrintED/SkillsUSA Student Certification – Graphic Design	Yes	Yes	Yes
10.0200.20	Digital Printing	PrintED/SkillsUSA Student Certification – Introduction to Graphic Communication	Yes	Yes	Yes
10.0200.20	Digital Printing	PrintED/SkillsUSA Student Certification – Offset Press Operations/Binding and Finishing	Yes	Yes	Yes
10.0200.20	Digital Printing	PrintED/SkillsUSA Student Certification – Screen Printing Technology	Yes	Yes	Yes
13.1210.00	Early Childhood Education	Academic Certificate: Child & Family Professional Development (CTED/Rio Salado College only)	No	No	Yes
13.1210.00	Early Childhood Education	Beginning to Teach Certificate	No	No	Yes
13.1210.00	Early Childhood Education	Bloodborne Pathogens	No	No	Yes
13.1210.00	Early Childhood Education	Certificate of Proficiency: Early Childhood Studies (CTED/Northland Pioneer College only)	No	No	Yes
13.1210.00	Early Childhood Education	Certificate: Early Childhood Education Professional Development (CTED/Central Arizona College only)	No	No	Yes
13.1210.00	Early Childhood Education	Child Development Associate Credential (CDA)	Yes	No	Yes
13.1210.00	Early Childhood Education	Child Find Certification	No	No	Yes
13.1210.00	Early Childhood Education	CPR/AED Certification	No	No	Yes
13.1210.00	Early Childhood Education	First Aid Certification	No	No	Yes
13.1210.00	Early Childhood Education	Food Handlers Certificate	No	No	Yes
13.1210.00	Early Childhood Education	Mandatory Reporting Child Abuse and Neglect	No	No	Yes
13.1210.00	Early Childhood Education	Paraprofessional Praxis Certification	Yes	No	Yes
13.1200.00	Education Professions	Beginning to Teach Certificate	No	No	Yes
13.1200.00	Education Professions	Child Find Certification	No	No	Yes
13.1200.00	Education Professions	CPR/AED Certification	No	No	Yes
13.1200.00	Education Professions	First Aid Certification	No	No	Yes
13.1200.00	Education Professions	Paraprofessional Praxis Certification	Yes	No	Yes
46.0300.20	Electrical and Power Transmission Installation	Independent Electrical Contractors (IEC) – Year 1 Apprenticeship Certificate	Yes	Yes	Yes
46.0300.20	Electrical and Power Transmission Installation	National Center for Construction Education and Research (NCCER) – Core	Yes	Yes	Yes
46.0300.20	Electrical and Power Transmission Installation	National Center for Construction Education and Research (NCCER) – Electrical – Level 1	Yes	Yes	Yes
46.0300.20	Electrical and Power Transmission Installation	National Center for Construction Education and Research (NCCER) – Electrical – Level 2	Yes	Yes	Yes
46.0300.20	Electrical and Power Transmission Installation	National Center for Construction Education and Research (NCCER) – Powerline Worker – Level 1	Yes	Yes	Yes
46.0300.20	Electrical and Power Transmission Installation	OSHA 10 – Construction Industry	Yes	Yes	Yes
15.0300.00	Electronic Technologies	Electronics Systems Professional Alliance (ESPA) – Electronics Systems Technician (EST)	No	Yes	Yes
15.0300.00	Electronic Technologies	General Radiotelephone Operators License (GROL/PG) – Element 1	Yes	Yes	Yes
15.0300.00	Electronic Technologies	General Radiotelephone Operators License (GROL/PG) – Element 3	Yes	Yes	Yes
15.0300.00	Electronic Technologies	IPC and the Wiring Harness Manufacturer's Association (WHMA) J-STD-001 Certification	No	Yes	Yes
15.0300.00	Electronic Technologies	IPC Association Connecting Electronics Industries – Hand Soldering	No	Yes	Yes
15.0300.00	Electronic Technologies	National Center for Construction Education and Research (NCCER) – Electronics Systems Technician (EST) – Level 1	Yes	Yes	Yes
15.0300.00	Electronic Technologies	National Center for Construction Education and Research (NCCER) – Electronics Systems Technician (EST) – Level 2	Yes	Yes	Yes
15.0300.00	Electronic Technologies	National Institute for Certification in Engineering Technologies (NICET)	No	Yes	Yes
15.0300.00	Electronic Technologies	Occupational Certificate: Electrical Technology (CTED/Arizona Western College only)	No	No	Yes
15.0300.00	Electronic Technologies	Occupational Certificate: Solar Panel Installation – Level I (CTED/Arizona Western College only)	No	No	Yes
15.1300.30	Electronics Drafting	Autodesk Certified User (ACU) – AutoCAD	Yes	Yes	Yes
15.1300.30	Electronics Drafting	CAD-CAM	Yes	Yes	Yes
15.1300.30	Electronics Drafting	Occupational Certificate: Drafting CAD (CTED/Arizona Western College only)	No	No	Yes
51.0900.30	Emergency Medical Services	Emergency Medical Responder (EMR)	Yes	Yes	Yes
51.0900.30	Emergency Medical Services	Emergency Medical Technician (EMT)	Yes	Yes	Yes

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51.0900.30	Emergency Medical Services	OSHA 10 – Healthcare	Yes	Yes	Yes
15.0000.00	Engineering	ASQ scale score 550	No	No	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – 3Ds Max	Yes	No	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – AutoCAD	Yes	Yes	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – Fusion 360 CAD	Yes	Yes	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – Inventor – Imperial	Yes	Yes	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – Inventor – Metric	Yes	Yes	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – Maya	Yes	Yes	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – Revit Architecture – Imperial	Yes	Yes	Yes
15.0000.00	Engineering	Autodesk Certified User (ACU) – Revit Architecture – Metric	Yes	Yes	Yes
15.0000.00	Engineering	Certificate of Proficiency: Industrial Plant Operations (CTED/Northland Pioneer College only)	No	No	Yes
15.0000.00	Engineering	Certificate of Proficiency: Operations and Maintenance (CTED/Northland Pioneer College only)	No	No	Yes
15.0000.00	Engineering	Certified Logistics Technician (CLT)	No	Yes	Yes
15.0000.00	Engineering	Certified SolidWorks Associate (CSWA)	Yes	Yes	Yes
15.0000.00	Engineering	Certified SolidWorks Professional (CSWP)	Yes	Yes	Yes
15.0000.00	Engineering	Geographic Information Systems Technician	No	Yes	Yes
15.0000.00	Engineering	International Society of Automation (ISA) – Certified Control Systems Technician	No	Yes	Yes
15.0000.00	Engineering	International Society of Certified Technicians Certification (ISCET)	No	Yes	Yes
15.0000.00	Engineering	Machining Manufacturing Skill Standards Council (MSSC) – Amatrol	Yes	No	Yes
15.0000.00	Engineering	Machining Manufacturing Skill Standards Council (MSSC) – Certified Production Technician (CPT)	Yes	Yes	Yes
15.0000.00	Engineering	Machining Manufacturing Skill Standards Council (MSSC) – Green Production Certification	Yes	Yes	Yes
15.0000.00	Engineering	Mastercam Associate	Yes	Yes	Yes
15.0000.00	Engineering	Mechatronics	Yes	Yes	Yes
15.0000.00	Engineering	Microsoft Office Specialist (MOS) – Associate for 2016	Yes	Yes	Yes
15.0000.00	Engineering	Microsoft Office Specialist (MOS) – Associate for 2019	Yes	Yes	Yes
15.0000.00	Engineering	Microsoft Office Specialist (MOS) – Associate for Office 365	Yes	Yes	Yes
15.0000.00	Engineering	Microsoft Office Specialist (MOS) – Expert for 2016	Yes	Yes	Yes
15.0000.00	Engineering	Microsoft Office Specialist (MOS) – Expert for 2019	Yes	Yes	Yes
15.0000.00	Engineering	Microsoft Office Specialist (MOS) – Expert for Office 365	Yes	Yes	Yes
15.0000.00	Engineering	National Coalition of Certification Centers (NC3) – Level 1 – Industrial Fundamentals	Yes	Yes	Yes
15.0000.00	Engineering	National Coalition of Certification Centers (NC3) – Multimeter	Yes	Yes	Yes
15.0000.00	Engineering	National Coalition of Certification Centers (NC3) – Precision Measuring	Yes	Yes	Yes
15.0000.00	Engineering	National Institute for Metalworking Skills (NIMS) – CNC Lathe entry level	Yes	Yes	Yes
15.0000.00	Engineering	National Institute for Metalworking Skills (NIMS) – CNC Lathe Programming and set up entry level	YEs	Yes	YEs
15.0000.00	Engineering	National Institute for Metalworking Skills (NIMS) – CNC Mill Entry level	Yes	Yes	Yes
15.0000.00	Engineering	National Institute for Metalworking Skills (NIMS) – CNC Mill Programming and set up entry level	Yes	Yes	Yes
15.0000.00	Engineering	National Institute for Metalworking Skills (NIMS) – Job Planning, Benchwork and Layout	Yes	Yes	Yes
15.0000.00	Engineering	National Institute for Metalworking Skills (NIMS) – Measurement, Materials and Safety	Yes	Yes	Yes
15.0000.00	Engineering	National Institute for Metalworking Skills (NIMS) – Turning I	Yes	Yes	Yes
15.0000.00	Engineering	Robotics Engineering Curriculum (REC) – ROBOTC	No	Yes	Yes
52.1900.20	Fashion Design and Merchandising	RISE-Up – Customer Service and Sales	Yes	No	Yes
52.1900.20	Fashion Design and Merchandising	RISE-Up – Retail Industry Fundamentals	Yes	No	Yes
52.1900.20	Fashion Design and Merchandising	RISE-Up – The Business of Retail	Yes	No	Yes
10.0200.90	Film and TV Production	Adobe Certified Associate (ACA) Creative Cloud – Video Design Specialist	Yes	Yes	Yes
10.0200.90	Film and TV Production	Adobe Certified Associate (ACA) Creative Cloud – Visual Design Specialist	Yes	Yes	Yes
10.0200.90	Film and TV Production	Adobe Certified Associate (ACA) Creative Cloud – Web Design Specialist	Yes	Yes	Yes
10.0200.90	Film and TV Production	Apple Certified Pro (ACP) – Final Cut Pro	Yes	Yes	Yes
10.0200.90	Film and TV Production	Apple Certified Pro (ACP) – Logic Pro X	Yes	Yes	Yes
52.0800.00	Finance	Assessment of Skills and Knowledge (A*S*K) – Concepts of Entrepreneurship and Management	Yes	Yes	Yes
52.0800.00	Finance	Assessment of Skills and Knowledge (A*S*K) – Concepts of Finance	Yes	Yes	Yes
52.0800.00	Finance	Assessment of Skills and Knowledge (A*S*K) – Fundamental Business Concepts	Yes	Yes	Yes
52.0800.00	Finance	Assessment of Skills and Knowledge (A*S*K) – Fundamental Marketing Concepts	Yes	Yes	Yes
52.0800.00	Finance	Assessment of Skills and Knowledge (A*S*K) – Fundamentals of Ethics	Yes	Yes	Yes
52.0800.00	Finance	Microsoft Office Specialist (MOS) – Associate for 2016	Yes	Yes	Yes
52.0800.00	Finance	Microsoft Office Specialist (MOS) – Associate for 2019	Yes	Yes	Yes

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52.0800.00	Finance	Microsoft Office Specialist (MOS) – Associate for Office 365	Yes	Yes	Yes
52.0800.00	Finance	Microsoft Office Specialist (MOS) – Expert for 2016	Yes	Yes	Yes
52.0800.00	Finance	Microsoft Office Specialist (MOS) – Expert for 2019	Yes	Yes	Yes
52.0800.00	Finance	Microsoft Office Specialist (MOS) – Expert for Office 365	Yes	Yes	Yes
52.0800.00	Finance	NAFTrack Certification – Academy of Finance	Yes	Yes	Yes
52.0800.00	Finance	Property and Casualty Insurance License	No	No	Yes
52.0800.00	Finance	QuickBooks Certified User (QBCU) Desktop 2016	Yes	Yes	Yes
52.0800.00	Finance	QuickBooks Certified User (QBCU) Desktop 2017	Yes	Yes	Yes
52.0800.00	Finance	QuickBooks Certified User (QBCU) Desktop 2019 Pro	Yes	Yes	Yes
52.0800.00	Finance	QuickBooks Certified User (QBCU) Online – U.S.	Yes	Yes	Yes
43.0200.00	Fire Service	AZ Center for Fire Service Excellence Fire Fighter I and II	Yes	No	Yes
43.0200.00	Fire Service	Candidate Physical Ability Test (CPAT)	Yes	No	Yes
43.0200.00	Fire Service	Emergency Medical Responder (EMR)	Yes	No	Yes
43.0200.00	Fire Service	EMI Certificate (CTED/Mohave Community College only)	No	No	Yes
43.0200.00	Fire Service	HAZMAT First Responder Operations and First Responder Awareness Certifications	Yes	No	Yes
43.0200.00	Fire Service	ICS Incident Command System FEMA Emergency Management Institute (CTED/Mohave Community College only)	No	No	Yes
43.0200.00	Fire Service	Wildland Firefighter	Yes	No	Yes
10.0200.30	Graphic Design	Adobe Certified Associate (ACA) Creative Cloud – Video Design Specialist	Yes	Yes	Yes
10.0200.30	Graphic Design	Adobe Certified Associate (ACA) Creative Cloud – Visual Design Specialist	Yes	Yes	Yes
10.0200.30	Graphic Design	Adobe Certified Associate (ACA) Creative Cloud – Web Design Specialist	Yes	Yes	Yes
10.0200.30	Graphic Design	Certificate of Proficiency: Computer Graphics and Web Design (CTED/Mohave Community College only)	No	No	Yes
10.0200.30	Graphic Design	PrintED/SkillsUSA Student Certification – Digital File Preparation/Digital File Output	Yes	Yes	Yes
10.0200.30	Graphic Design	PrintED/SkillsUSA Student Certification – Digital Production Printing	Yes	Yes	Yes
10.0200.30	Graphic Design	PrintED/SkillsUSA Student Certification – Graphic Design	Yes	Yes	Yes
10.0200.30	Graphic Design	PrintED/SkillsUSA Student Certification – Introduction to Graphic Communication	Yes	Yes	Yes
10.0200.30	Graphic Design	PrintED/SkillsUSA Student Certification – Offset Press Operations/Binding and Finishing	Yes	Yes	Yes
10.0200.30	Graphic Design	PrintED/SkillsUSA Student Certification – Screen Printing Technology	Yes	Yes	Yes
47.0200.00	Heating Ventilation and Air Conditioning	Certificate: HVAC Commercial Refrigeration (CTED/Mohave Community College only)	No	No	Yes
47.0200.00	Heating Ventilation and Air Conditioning	Certificate: HVAC Residential (CTED/Mohave Community College only)	No	No	Yes
47.0200.00	Heating Ventilation and Air Conditioning	National Center for Construction Education and Research (NCCER) – Core	Yes	Yes	Yes
47.0200.00	Heating Ventilation and Air Conditioning	National Center for Construction Education and Research (NCCER) – HVAC – Level 1	Yes	Yes	Yes
47.0200.00	Heating Ventilation and Air Conditioning	National Center for Construction Education and Research (NCCER) – HVAC – Level 2	Yes	Yes	Yes
47.0200.00	Heating Ventilation and Air Conditioning	Occupational Certificate: Air Conditioning and Refrigeration (CTED/Arizona Western College only)	No	No	Yes
47.0200.00	Heating Ventilation and Air Conditioning	OSHA 10 – Construction Industry	Yes	Yes	Yes
49.0200.00	Heavy Equipment Operations	ATSSA Certified Flagger	No	Yes	Yes
49.0200.00	Heavy Equipment Operations	National Center for Construction Education and Research (NCCER) – Core	Yes	Yes	Yes
49.0200.00	Heavy Equipment Operations	National Center for Construction Education and Research (NCCER) – Heavy Equipment Operator – Level 1	Yes	Yes	Yes
49.0200.00	Heavy Equipment Operations	National Center for Construction Education and Research (NCCER) – Heavy Equipment Operator – Level 2	Yes	Yes	Yes
49.0200.00	Heavy Equipment Operations	OSHA 10 – Construction Industry	Yes	Yes	Yes
51.2602.00	Home Health Aide	Article 9 Certification	Yes	Yes	Yes
51.2602.00	Home Health Aide	Direct Care Worker (DCW)	Yes	Yes	Yes
51.2602.00	Home Health Aide	OSHA 10 – Healthcare	Yes	Yes	Yes
52.0900.00	Hospitality Management	Certified Front Desk Representative (CFDR)	Yes	No	Yes
52.0900.00	Hospitality Management	Certified Guest Service Professional (CGSP)	Yes	No	Yes
52.0900.00	Hospitality Management	Certified Hospitality and Tourism Management Professional (CHTMP)	Yes	No	Yes
52.0900.00	Hospitality Management	Certified Restaurant Server	Yes	No	Yes
52.0900.00	Hospitality Management	NAFTrack Certification – Academy of Finance	Yes	No	Yes
52.0900.00	Hospitality Management	National ProStart Certificate of Achievement (COA)	Yes	No	Yes
52.0900.00	Hospitality Management	ServSafe Food Protection Manager	Yes	No	Yes
46.0300.30	Industrial Electrician	Independent Electrical Contractors (IEC) – Year 1 Apprenticeship Certificate	Yes	No	Yes
46.0300.30	Industrial Electrician	National Center for Construction Education and Research (NCCER) – Core	Yes	No	Yes
46.0300.30	Industrial Electrician	National Center for Construction Education and Research (NCCER) – Electrical – Level 1	Yes	No	Yes
46.0300.30	Industrial Electrician	National Center for Construction Education and Research (NCCER) – Electrical – Level 2	Yes	No	Yes

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46.0300.30	Industrial Electrician	National Center for Construction Education and Research (NCCER) – Powerline Worker – Level 1	Yes	No	Yes
46.0300.30	Industrial Electrician	OSHA 10 – Construction Industry	Yes	No	Yes
52.1900.30	Interior Design and Merchandising	Autodesk Certified User (ACU) – 3Ds Max	Yes	No	Yes
52.1900.30	Interior Design and Merchandising	Autodesk Certified User (ACU) – Maya	Yes	No	Yes
52.1900.30	Interior Design and Merchandising	Chief Architect Certified Apprentice	Yes	No	Yes
52.1900.30	Interior Design and Merchandising	RISE-Up – Customer Service and Sales	Yes	No	Yes
52.1900.30	Interior Design and Merchandising	RISE-Up – Retail Industry Fundamentals	Yes	No	Yes
52.1900.30	Interior Design and Merchandising	RISE-Up – The Business of Retail	Yes	No	Yes
51.0800.30	Laboratory Assisting	Certified Phlebotomy Technician	Yes	Yes	Yes
51.0800.30	Laboratory Assisting	OSHA 10 – Healthcare	Yes	Yes	Yes
43.0100.00	Law and Public Safety	Association of Public-Safety Communications Officials (APCO) International – Public Safety Telecommunication Dispatcher	Yes	No	Yes
43.0100.00	Law and Public Safety	Certified Protection Officer (CTED/Mohave Community College only)	No	No	Yes
43.0100.00	Law and Public Safety	EMI Certificate (CTED/Mohave Community College only)	No	No	Yes
43.0100.00	Law and Public Safety	ICS Incident Command System FEMA Emergency Management Institute (CTED/Mohave Community College only)	No	No	Yes
43.0100.00	Law and Public Safety	Security Guard Certification (Arizona Department of Public Safety)	Yes	No	Yes
52.1800.20	Marketing	Assessment of Skills and Knowledge (A*S*K) – Concepts of Entrepreneurship and Management	Yes	Yes	Yes
52.1800.20	Marketing	Assessment of Skills and Knowledge (A*S*K) – Fundamental Marketing Concepts	Yes	Yes	Yes
52.1800.20	Marketing	Assessment of Skills and Knowledge (A*S*K) – Fundamentals of Ethics	Yes	Yes	Yes
52.1800.20	Marketing	Beginning Jewelry Sales	Yes	Yes	Yes
52.1800.20	Marketing	Microsoft Office Specialist (MOS) – Associate for 2016	Yes	Yes	Yes
52.1800.20	Marketing	Microsoft Office Specialist (MOS) – Associate for 2019	Yes	Yes	Yes
52.1800.20	Marketing	Microsoft Office Specialist (MOS) – Associate for Office 365	Yes	Yes	Yes
52.1800.20	Marketing	Microsoft Office Specialist (MOS) – Expert for 2016	Yes	Yes	Yes
52.1800.20	Marketing	Microsoft Office Specialist (MOS) – Expert for 2019	Yes	Yes	Yes
52.1800.20	Marketing	Microsoft Office Specialist (MOS) – Expert for Office 365	Yes	Yes	Yes
52.1800.20	Marketing	NAFTrack Certification – Academy of Finance	Yes	Yes	Yes
52.1800.20	Marketing	RISE-Up – Customer Service and Sales	Yes	Yes	Yes
52.1800.20	Marketing	RISE-Up – Retail Industry Fundamentals	Yes	Yes	Yes
52.1800.20	Marketing	RISE-Up – The Business of Retail	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	ArcGIS Certified Desktop Entry Certification	No	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified Professional	No	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – 3Ds Max	Yes	No	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – AutoCAD	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – Fusion 360 CAD	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – Inventor – Imperial	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – Inventor – Metric	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – Maya	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – Revit Architecture – Imperial	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Autodesk Certified User (ACU) – Revit Architecture – Metric	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	CAD-CAM	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Certified Apprentice Drafter – High School	No	Yes	Yes
15.1300.40	Mechanical Drafting	Certified Drafter – Advanced High School	No	Yes	Yes
15.1300.40	Mechanical Drafting	Certified SolidWorks Associate (CSWA)	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Certified SolidWorks Professional (CSWP)	Yes	Yes	Yes
15.1300.40	Mechanical Drafting	Mastercam Associate	Yes	Yes	Yes
51.0800.60	Medical Assisting Services	Certificate of Proficiency: Medical Assistant (CTED/Eastern Arizona College only)	No	No	Yes
51.0800.60	Medical Assisting Services	Certified Phlebotomy Technician	Yes	Yes	Yes
51.0800.60	Medical Assisting Services	Clinical Medical Assistant (CCMA)	Yes	Yes	Yes
51.0800.60	Medical Assisting Services	OSHA 10 – Healthcare	Yes	Yes	Yes
51.0800.60	Medical Assisting Services	Registered Medical Assistant (RMA)	Yes	Yes	Yes
51.0707.00	Medical Records Technologies	Certified Electronic Health Records Specialist	Yes	Yes	Yes
51.1500.00	Mental and Social Health Technician	Article 9 Certification	Yes	Yes	Yes

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51.1500.00	Mental and Social Health Technician	Mental Health Technician Certification	Yes	Yes	Yes
51.1500.00	Mental and Social Health Technician	Occupational Certificate: Community Health Care Worker (CTED/Arizona Western College only)	No	No	Yes
51.1500.00	Mental and Social Health Technician	Psychological First Aid	Yes	Yes	Yes
10.0200.00	Music and Audio Production	Certified Radio Operator	Yes	Yes	Yes
15.1200.30	Network Security	Certificate of Proficiency: Cybersecurity and Network Support (CTED/Mohave Community College only)	No	No	Yes
15.1200.30	Network Security	Certificate of Proficiency: Programming and Game Design Development (CTED/Mohave Community College only)	No	No	Yes
15.1200.30	Network Security	Certified Design Associate (CCDA)	No	Yes	Yes
15.1200.30	Network Security	Certified Entry Networking Technician (CCENT)	No	Yes	Yes
15.1200.30	Network Security	Certified IT Professional (MCITP)	No	Yes	Yes
15.1200.30	Network Security	Certified Network Associate (CCNA) Routing and Switching Certification	No	Yes	Yes
15.1200.30	Network Security	Certified Technology Specialist (MCTS)	No	Yes	Yes
15.1200.30	Network Security	Client Pro (Windows 7-8 management troubleshooting certification)	No	Yes	Yes
15.1200.30	Network Security	CompTIA – A+	Yes	Yes	Yes
15.1200.30	Network Security	CompTIA – IT Fundamentals	Yes	Yes	Yes
15.1200.30	Network Security	CompTIA – Network+	Yes	Yes	Yes
15.1200.30	Network Security	CompTIA – Security +	Yes	Yes	Yes
15.1200.30	Network Security	CSX Cybersecurity Fundamentals Certificate	Yes	Yes	Yes
15.1200.30	Network Security	Global Security Essentials Certification (GSEC)	No	Yes	Yes
15.1200.30	Network Security	Linux Pro (Linux prep certification)	No	Yes	Yes
15.1200.30	Network Security	Microsoft Certified Professional (MCP)	No	Yes	Yes
15.1200.30	Network Security	Microsoft Certified Solutions Associate (MCSA)	No	Yes	Yes
15.1200.30	Network Security	Network Pro (networking basics)	No	Yes	Yes
15.1200.30	Network Security	Network+	No	Yes	Yes
15.1200.30	Network Security	Security Pro (entry-level IT security administrator)	No	Yes	Yes
15.1200.30	Network Security	Server Pro (Windows server skills)	No	Yes	Yes
15.1200.30	Network Security	TestOut PC Pro Certification	No	Yes	Yes
51.3900.00	Nursing Services	Article 9 Certification	Yes	Yes	Yes
51.3900.00	Nursing Services	Certified Nurse Assistant (CNA)	Yes	Yes	Yes
51.3900.00	Nursing Services	Licensed Nurse Assistant (LNA)	Yes	Yes	Yes
51.3900.00	Nursing Services	OSHA 10 – Healthcare	Yes	Yes	Yes
51.0800.20	Pharmacy Support Services	Certified Pharmacy Technician (CPhT)	Yes	Yes	Yes
51.0800.20	Pharmacy Support Services	OSHA 10 – Healthcare	Yes	Yes	Yes
01.0100.30	Plant Systems	Arizona Agriculture Skills & Competencies Certificate	Yes	No	Yes
01.0100.30	Plant Systems	Arizona Certified Nursery Professional (ACNP)	Yes	No	Yes
01.0100.30	Plant Systems	Arizona Landscape Contractors Association (ALCA)	Yes	No	Yes
01.0100.30	Plant Systems	Bayer Crop Science Plant Science Certification	Yes	No	Yes
01.0100.30	Plant Systems	Benz School of Floral Design Principles of Floral Design Certification	Yes	No	Yes
01.0100.30	Plant Systems	OSHA 10 – Agriculture	Yes	No	Yes
01.0100.30	Plant Systems	OSHA 10 – Construction Industry	Yes	No	Yes
01.0100.30	Plant Systems	OSHA 10 – General	Yes	No	Yes
01.0100.30	Plant Systems	Water Harvesting Certification	No	No	Yes
01.0100.30	Plant Systems	Worker Protection on Standard Training Handler Verification Card	No	No	Yes
01.0100.60	Power Structural and Technical Systems	OSHA 10 – Construction Industry	Yes	No	Yes
48.0500.30	Precision Machining	Associate Certification: Mill Design and Toolpaths	No	No	Yes
48.0500.30	Precision Machining	Autodesk Certified User (ACU) – 3Ds Max	Yes	No	Yes
48.0500.30	Precision Machining	Autodesk Certified User (ACU) – Maya	Yes	No	Yes
48.0500.30	Precision Machining	CAD-CAM	Yes	Yes	Yes
48.0500.30	Precision Machining	Certified Programmer Mill Level 1 (CPgM1)	No	No	Yes
48.0500.30	Precision Machining	Certified SolidWorks Associate (CSWA)	Yes	Yes	Yes
48.0500.30	Precision Machining	Certified SolidWorks Professional (CSWP)	Yes	Yes	Yes
48.0500.30	Precision Machining	CNC Operator Certificate (CTED only)	No	No	Yes
48.0500.30	Precision Machining	Machining Manufacturing Skill Standards Council (MSSC) – Amatrol	Yes	No	Yes
48.0500.30	Precision Machining	Machining Manufacturing Skill Standards Council (MSSC) – Certified Production Technician (CPT)	Yes	Yes	Yes
48.0500.30	Precision Machining	Machining Manufacturing Skill Standards Council (MSSC) – Green Production Certification	Yes	Yes	Yes
48.0500.30	Precision Machining	Mastercam Associate	Yes	Yes	Yes
48.0500.30	Precision Machining	Mechatronics	Yes	Yes	Yes
48.0500.30	Precision Machining	National Career Readiness Certificate (NCRC) Level 1	No	No	Yes

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48.0500.30	Precision Machining	National Center for Construction Education and Research (NCCER) – Industrial Maintenance Mechanic – Level 1	Yes	Yes	Yes
48.0500.30	Precision Machining	National Center for Construction Education and Research (NCCER) – Industrial Maintenance Mechanic – Level 2	Yes	Yes	Yes
48.0500.30	Precision Machining	National Center for Construction Education and Research (NCCER) – Millwright	Yes	Yes	Yes
48.0500.30	Precision Machining	National Coalition of Certification Centers (NC3) – Multimeter	Yes	Yes	Yes
48.0500.30	Precision Machining	National Coalition of Certification Centers (NC3) – Precision Measuring	Yes	Yes	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – CNC Lathe entry level	YEs	Yes	YEs
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – CNC Lathe Programming and set up entry level	Yes	Yes	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – CNC Mill Entry level	Yes	Yes	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – CNC Mill Programming and set up entry level	Yes	Yes	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – EDM Plunge	Yes	No	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – EDM Wire	Yes	No	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – Job Planning, Benchwork and Layout	Yes	Yes	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – Machining Level II – Grinding Skills II	Yes	No	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – Machining Level II – Manual Milling	Yes	No	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – Measurement, Materials and Safety	Yes	Yes	Yes
48.0500.30	Precision Machining	National Institute for Metalworking Skills (NIMS) – Turning I	Yes	Yes	Yes
48.0500.30	Precision Machining	Tool Setter Certificate	No	Yes	Yes
15.1200.40	Software and App Design	Certified Internet Web (CIW) JavaScript Specialist	Yes	Yes	Yes
15.1200.40	Software and App Design	CompTIA – A+	Yes	Yes	Yes
15.1200.40	Software and App Design	CompTIA – IT Fundamentals	Yes	Yes	Yes
15.1200.40	Software and App Design	CompTIA – Security +	Yes	Yes	Yes
15.1200.40	Software and App Design	CSX Cybersecurity Fundamentals Certificate	Yes	Yes	Yes
15.1200.40	Software and App Design	Microsoft Technology Associate (MTA)	Yes	Yes	Yes
15.1200.40	Software and App Design	Oracle Certified Associate JAVA SE 8 Programmer	No	Yes	Yes
15.1200.40	Software and App Design	Swift Certification App Dev – Level 1	Yes	Yes	Yes
51.0800.50	Sports Medicine and Rehabilitation	Certified Personal Trainer (CPT)	Yes	Yes	Yes
51.0800.50	Sports Medicine and Rehabilitation	Certified Physical Therapy Aide (CPTA)	Yes	Yes	Yes
51.0800.50	Sports Medicine and Rehabilitation	Emergency Medical Responder (EMR)	Yes	Yes	Yes
51.0800.50	Sports Medicine and Rehabilitation	OSHA 10 – Healthcare	Yes	Yes	Yes
50.0500.20	Stagecraft	OSHA 10 – Construction Industry	Yes	Yes	Yes
51.3500.00	Therapeutic Massage	Licensed Massage Therapist (LMT)	Yes	Yes	Yes
51.0808.00	Veterinary Assisting	Approved Veterinary Assistant (AVA)	Yes	Yes	Yes
51.0808.00	Veterinary Assisting	OSHA 10 – Healthcare	Yes	Yes	Yes
15.1200.50	Web Page Development	Adobe Certified Associate (ACA)	Yes	No	Yes
15.1200.50	Web Page Development	Certified Internet Web (CIW) JavaScript Specialist	Yes	No	Yes
15.1200.50	Web Page Development	CompTIA – A+	Yes	No	Yes
15.1200.50	Web Page Development	E-Commerce Specialist	No	No	Yes
15.1200.50	Web Page Development	Microsoft Certified Solutions Associate (MCSA)	No	No	Yes
15.1200.50	Web Page Development	Microsoft Certified Solutions Developer (MCSD)	No	No	Yes
15.1200.50	Web Page Development	Microsoft Technology Associate (MTA)	Yes	No	Yes
15.1200.50	Web Page Development	Swift Certification App Dev – Level 1	Yes	No	Yes
15.1200.50	Web Page Development	Web Design Professional	No	No	Yes
15.1200.50	Web Page Development	Web Foundations Associate	No	No	Yes
48.0508.00	Welding Technologies	Amatrol	Yes	No	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 1F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 1G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 2F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 2G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 3F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 3G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 4F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 GTAW 4G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 1F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 1G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 2F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 2G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 3F	Yes	Yes	Yes

CIP Code	Program Name	Credential	A-F Approved 19-20	AZ Industry Incentive Fund 19-20	CTED 19-20
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 3G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 4F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) D17.1 SMAW 4G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 1F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 1G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 2F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 2G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 3F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 3G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 4F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) FCAW 4G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 1F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 1G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 2F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 2G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 3F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 3G	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 4F	Yes	Yes	Yes
48.0508.00	Welding Technologies	American Welding Society (AWS) GMAW 4G	Yes	Yes	Yes
48.0508.00	Welding Technologies	Autodesk Certified User (ACU) – 3Ds Max	Yes	Yes	Yes
48.0508.00	Welding Technologies	Autodesk Certified User (ACU) – Maya	Yes	Yes	Yes
48.0508.00	Welding Technologies	CAD-CAM	Yes	No	Yes
48.0508.00	Welding Technologies	Certificate of Proficiency: Welding Technology (CTED/Eastern Arizona College only)	No	No	Yes
48.0508.00	Welding Technologies	Certificate: Gas Metal Arc Welding (CTED/Mohave Community College only)	No	No	Yes
48.0508.00	Welding Technologies	Certificate: Shielded Metal Arc Welding (CTED/Mohave Community College only)	No	No	Yes
48.0508.00	Welding Technologies	Certified SolidWorks Associate (CSWA)	Yes	Yes	Yes
48.0508.00	Welding Technologies	Certified SolidWorks Professional (CSWP)	Yes	Yes	Yes
48.0508.00	Welding Technologies	Manufacturing Skill Standards Council (MSSC)	Yes	Yes	Yes
48.0508.00	Welding Technologies	Mastercam Associate	Yes	Yes	Yes
48.0508.00	Welding Technologies	Mechatronics	Yes	Yes	Yes
48.0508.00	Welding Technologies	National Center for Construction Education and Research (NCCER) – Core	Yes	Yes	Yes
48.0508.00	Welding Technologies	National Center for Construction Education and Research (NCCER) – Sheet Metal	Yes	Yes	Yes
48.0508.00	Welding Technologies	National Center for Construction Education and Research (NCCER) – Welding Level 1	Yes	Yes	Yes
48.0508.00	Welding Technologies	National Center for Construction Education and Research (NCCER) – Welding Level 2	Yes	Yes	Yes
48.0508.00	Welding Technologies	National Coalition of Certification Centers (NC3) – Precision Measuring	Yes	No	Yes
48.0508.00	Welding Technologies	National Institute for Metalworking Skills (NIMS)	Yes	Yes	Yes
48.0508.00	Welding Technologies	OSHA 10 – Construction Industry	Yes	Yes	Yes

Industry Certification Approval Process for Inclusion on College and Career Readiness Credentials List (A-F School Letter Grades)and CTE Programs with Identified Industry Certifications to meet ARS 15-391 5 k and l for CTED Eligibility.

1. Requestor will complete the "Industry-Based Certification Application for Inclusion on the Arizona State A-F School Rating List" and submit it to the Arizona Department of Education/Career and Technical Education unit (ADE/CTE), no earlier than March 1st of each year, through the CTED inbox, CTED@azed.gov .

2. The appropriate ADE/CTE Program Specialist will review the application and send it to the appropriate program Industry Advisory Committee.

3. The Industry Advisory Committee will determine if the credential should be added to the College and Career Readiness Rubric Credentials List (A-F School Letter Grades) and/or the Current CTE Programs with Identified Industry Certifications to meet ARS 15-391 5 k and l for CTED Eligibility list and/or using the application and supporting documentation submitted.

4. The recommendation for the College and Career Readiness Rubric Credentials List (A-F School Letter Grades) will then be submitted to the Arizona Career and Technical Education Quality Commission for review and submission to the State Board of Education for addition to the College and Career Readiness Rubric, Industry Certification list.

5. Once approved by the State Board of Education, the list will be added to the ADE website.

The timeline for the process is as follows:

Beginning March 1, 2020, the application process for the College and Career Readiness Indicators Credentials List (A-F Rating List) and CTED industry credential list will **open on March 1st** of each year and will **close on July 31st** of that same year. Submissions for the College and Career Readiness Indicators Credentials List (A-F Rating List) and CTED industry credential list must be received by **5:00 pm on July 31st** for of the current year to be considered for the school year following the year submitted.

Credentials submitted to ADE CTE between March 1, 2020 and July 31, 2020 and approved by the CTE Quality Commission at the October 2020 quarterly meeting will be submitted to the State Board of Education (SBE) in January 2021 and if approved by the SBE, to the Joint Legislative Budget Committee(JLBC) in February 2021 for any new credentials for the **2021-2022 school year.**

Rules for Writing

Multiple-Choice Questions

Arizona's Technical Skills Assessments are designed to certify and document student attainment of industry-validated technical knowledge and skills. Delivered online, all assessments are 100 multiple-choice questions that align to program technical standards and range from knowledge and comprehension to application, analysis, and evaluation in cognitive difficulty. Most of the items are operational items that have historically proven to be valid and reliable and the remaining are field-tested items. Students are scored on the operational items not the field-tested items. Those who successfully complete the 60% pass score receive an industry-endorsed congratulatory letter and certificate.

Teachers serve as content experts in the development of assessment items. Committees comprised of secondary teachers convene annually to develop, review, and edit assessment items. The expertise of teachers and their engagement in making connections between curriculum, instruction, and assessment has contributed greatly to the advancement of student achievement. **Rules for Writing Multiple-Choice Questions** was developed to provide Technical Skills Committees (teachers and facilitators) guidelines for developing good, consistent assessment items.

January 2020

For additional information, contact:

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Statement of Professionalism
for
Technical Skills Assessment Development and Review

- I understand that the work involved in establishing the Arizona Technical Skills Assessments is confidential and that the items must remain secure.

- I acknowledge my responsibility to follow the procedures set forth by the Arizona Department of Education, Career and Technical Education regarding the development of items and including the surrender of all materials associated with item development at the conclusion of meetings.

- I further understand that if I am found acting indiscreetly with confidential material, I will be dismissed from further involvement in the assessments. I understand this action to be necessary in order to maintain the integrity of the Arizona Technical Skills Assessments.

- I agree to engage with colleagues in developing an ongoing community-of-practice that exemplifies the highest standards of professionalism.

_____   _____

Printed Name of Participant   CTE Program

_____   _____

                                            Participant's Signature

General Rules for Writing Multiple-Choice Items

The Item:	Options (distractors):
1. Is based on a valid skill (measurement criterion). 2. Uses correct grammar, punctuation, and spelling. 3. Is not a trick item that would mislead or deceive students. 4. Uses either the best answer or the correct answer format. 5. Does not have textbook, verbatim phrasing. 6. Is based on important aspects of the content area. 7. Does not contain insensitive content or language.	1. Each item has four options. 2. Options are homogeneous in content and consistent in length. 3. Options are phrased positively, not negatively. 4. There are no clues in grammatical construction. 5. The phrase "none of the above" is never used because the options are randomized.
The stem of the item:	**Distractors:**
1. Is stated as a question. 2. Is clearly worded and lets the student know exactly what is being asked. 3. Includes enough information to make the question clear.	1. Are plausible and logical. 2. Incorporate common errors of students. 3. Use familiar yet incorrect phrases. 4. May be true statements but do not correctly answer the item.
Additional considerations:	**The correct option:**
1. If an item is stated negatively, the negative word is capitalized. 2. The phrase "all of the above" is never used. 3. Specific determiners such as "never" and "always" are not used	1. Is randomized so that it appears about the same number of times in each possible position for a set of items. 2. Is the one and only correct, or clearly best, answer on which experts would agree.

Grammar and Formatting Rules

The stem (question)
- Ensure that the right question is being asked *in its simplest form* and that it is matched to the correct standard and measurement criterion.
- Improve the clarity and meaning of a question by *using present or action conditions* (what is; what are) rather than passive or progressive construction (what would be; what should be; what will be).
- Change "which of the following" to "which" or "what" plus a noun (e.g., term, issue, technique, statement, factor, action, purpose, step, etc.); eliminate "of the following" or rewrite the question.
- Capitalize words such as NOT, TRUE, USUALLY, COMMONLY, and PRIMARY for emphasis. Quotation marks and capped letters can be used; however, italics and symbols cannot be used.

The options (distractors)
- Match structure (parallel structure), content, plausibility, and length of distractors.
- Eliminate articles (a, an, and the) introducing options.
- Remove "and" between items listed in a series as an option *when plausible*.
- Use *the logical flow* in answering the question to determine whether sentences, phrases, or gerunds (a verb form ending in – *ing* that can serve in place of a noun phrase) are needed.
- *Eliminate same word used in options if the word is also used in the stem* (e.g., What type of cells are used during tissue culture? a. Meristem ~~cells~~; b. Leaf ~~cells~~; c. Stem ~~cells~~; d. Root ~~cells~~
- Check for and change key words that appear in the question and are reused in distractors.

Overall
- Remove unnecessary information/description in both the question and the options.
- Use "that" for a restrictive clause (information essential to the understanding) and "which" for a nonrestrictive clause (information nonessential to the understanding).
- Always use numbers with time, weight, and measurements. Spell out single-digit whole numbers and use numerals for numbers greater than *nine*. If a numeral is used because one of the numbers is greater than *nine*, use numerals for all numbers in the question and/or option.

Instructions for Committee Work

TASK: REVIEW THE ITEM ANALYSIS RESULTS AND EDIT, LEAVE, OR RETIRE ITEMS

1. Review the content and formatting of the **Item Analysis** report. Refer to the **Assessment Item Analysis** document to better understand item analysis. Note. This report contains all 100 items on the past fall and spring test.

- Total number of Items and the breakdown of items by New, Edited, Active, and Operational is shown at the top of the Item Bank.

- Standards: **Bold and CAPS**

- Measurement criteria: **Bold and Upper/Lower Case**

- Coding breakdown (*example: 43.1.2.14*): **First number** is the program number in the assessment database. *You can disregard this number for the alignment task.* **Second number** is the standard. **Third number** is the measurement criterion. **Fourth number** is the item number. If an item is missing in the numbering sequence, this means that the item is retired.

- Item Stem: **Bold and always in question format**

- Options: Four options with answer bold and in "a" position

- Difficulty Index (only shown on the Item Analysis report): Number of students who answered the item correctly (refer to the Item Analysis document for further explanation)

- Discrimination Index (only shown on the Item Analysis report): Degree of difference between those students who know the content and those students who do not know the content (refer to the Item Analysis document for further explanation)

- Item Status and Blooms ID: Refer to Bloom's Classification for Multiple-Choice Items document for an explanation of item classification.

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2. Review each of the "flagged items" and decide to leave, edit, or retire the item. Many factors can contribute to students getting an item incorrect. Some of the most obvious are:
    - The question is ambiguous.
    - The question has no or more than one correct answer.
    - The content was not adequately taught.
    - Students were unaware the content was important.
    - The question contained cues that misdirected students.
    - Students missed an essential element of the question.
    - Students were confused by a question's logic (e.g., "not" question).

3. On the *Master Copy* of the **Item Analysis** report to the left of the item, indicate the committee's decision to leave or retire items. Edit items on this document or use the **Worksheet for Multiple-Choice Items** to rewrite an item or to develop a replacement item. Refer to **General Rules for Writing Multiple-Choice Items, Grammar and Formatting Rules**, and **How to Write Higher-Order Thinking Items**, and **Bloom's Classification for Multiple-Choice Items** about how to write new items.

NOTE to Facilitator: Change Item status when appropriate.
All flagged NEW, EDITED, and ACTIVE items *that are edited* will become or remain EDITED items.

All flagged (and unflagged) EDITED items *that are not edited and not retired* will become ACTIVE items.
All flagged and unflagged ACTIVE items *that are not edited or not retired* will become OPERATIONAL items.

The facilitator should collect all items to ensure the integrity of the Technical Skills Assessments.

How to Write Higher-Order Thinking Items

*A **stem** that presents a problem which requires application of principles, analysis of a problem, or evaluation of alternatives focuses on higher-order thinking. A **case study** that requires knowledge of more than one fact to logically and systematically apply concepts to a problem addresses higher-order thinking. And, **item options** that involve a high level of discrimination also contribute to higher-order thinking.* Following are examples to help you write higher-order assessment items. (Note: The answer to these multiple-choice questions is not always "a.")

Memory-plus Application. Sally's breakfast this morning included one glass of concentrate orange juice, one slice of toast, a small bowl of bran cereal, and a grapefruit. What "whole food" did Sally eat for breakfast?
a. Orange juice
b. Toast
c. Bran cereal
d. Grapefruit

Ability to Interpret Cause-and-effect Relationships. Why does investing money in common stock protect against loss of assets during inflation?
a. It pays higher rates of interest during inflation.
b. It provides a steady but dependable income despite economic conditions.
c. It is protected by the Federal Reserve System.
d. It increases in value as the value of a business increases.

Ability to Justify Methods and Procedures. Technician A says that the basecoat/clearcoat system was designed to provide extra protection against ultraviolet rays and add gloss to the finish. Technician B says that the basecoat colors dry to a flat finish and requires a proper clear coat top coating to achieve correct gloss. Which technician is correct?
a. Both technicians
b. Neither technician
c. Technician B
d. Technician A

Ability to Evaluate Multiple Evidences to Solve a Problem. A nurse is making a home visit to a 75-year-old man who has had Parkinson's disease for the past 5 years. Which finding has the greatest implication for this patient's care?
a. The client's wife tells the nurse that the grandchildren have not been to visit for over a month.
b. The nurse notes that there are numerous throw rugs throughout the client's home.
c. The client has a towel wrapped around his neck that the wife uses to wipe her husband's face.
d. The client is sitting in an armchair, and the nurse notes that he is gripping the arms of the chair.

Ability to Evaluate Multiple Evidences to Solve a Problem. Tim is in the second grade. He withdraws from his peers, often confuses syllables in words, and loses his place when reading. His teacher has arranged a meeting with his mother to discuss these concerns. Which statement is best for the teacher to say to Tim's mother?
a. Tim needs extra practice reading and writing problematic letters and words at home at least 30 minutes per day.
b. Please discuss the importance of schoolwork to Tim so that he will increase his efforts in classwork.
c. These are possible symptoms of dyslexia so I would like to refer him to a specialist for diagnosis.
d. Please adjust Tim's diet because he is most likely showing symptoms of ADHA due to food allergies.

Complex Thinking, Application of Knowledge, Integration of Material. Two researchers were studying the relationship between amount of sleep each night and calories burned on an exercise bike for 42 men and women. They were interested if people who slept more had more energy to use during their exercise session. They obtained a correlation of .28, which has a two-tailed probability of .08. Alpha was .10. Which is an example of a properly written research question?
a. Is there a relationship between amount of sleep and energy expanded?
b. Does amount of sleep correlate with energy used?
c. What is the cause of energy expanded?
d. What is the value of rho?

Bloom's Classification for Multiple-Choice Items

This two-dimensional framework focuses on knowledge and cognitive processes that define what students are expected to learn. Specifically, it explores curriculums from three perspectives: learning, curriculum and instruction, and assessment.

The Knowledge Dimension	The Cognitive Process Dimension					
	1. Remembering Retrieve knowledge from long-term memory (recognizing, recalling)	**2. Understanding** Construct meaning from instructional messages using oral, written, and graphic communication (interpreting, exemplifying, classifying, summarizing, inferring, comparing)	**3. Applying** Carry out or use a procedure in a given situation (executing implementing)	**4. Analyzing** Breakdown material into its constituent parts and determine how the parts relate to one another and to the overall structure or purpose (differentiating, organizing, attributing)	**5. Evaluating** Make judgments based on criteria and standards (checking, critiquing)	**6. Creating** Put elements together to form a coherent or functional whole, reorganize elements into a new pattern or structure (generating, planning, producing)
A. Factual Knowledge The basic elements students must know to be able to solve problems, i.e., terminology, specific details, and elements.	List	Summarize	Respond	Select	Check	
B. Conceptual Knowledge The interrelationships among basic elements within a larger structure that enable them to function together, i.e., classifications and categories, principles and generalizations; theories, models, and structures.	Recognize	Classify	Provide	Differentiate	Determine	
C. Procedural Knowledge How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods, i.e., subject-specific skills and algorithms; subject-specific techniques and methods; and criteria for determining when to use appropriate procedures.	Recall	Clarify	Carry out	Integrate	Judge	
D. Metacognitive Knowledge Knowledge of cognition in general as well as awareness and knowledge of one's own cognition, i.e., strategic knowledge; contextual and conditional knowledge; and self-knowledge.						
KEY:	YELLOW – CAUTION Necessarily foundational knowledge and understandings		GOLD – GO FOR THE GOLD Target area for item development/summative assessments		GRAY – OUT OF BOUNDS Exceeds limitation of multiple-choice assessment items	

Note: The verb in each block is provided as an aid to help individualize and differentiate each classification, i.e., A1 vs. B1 vs. C1, and so forth.

Adapted from: *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*

Examples of Verbs for the Cognitive Process Dimensions					
1. Remembering	**2. Understanding**	**3. Applying**	**4. Analyzing**	**5. Evaluating**	**6. Creating**
Arrange	Characterize	Administer	Achieve	Assess	Actualize
Define	Classify	Apply	Advertise	Compare	Change
Describe	Compare	Change	Analyze	Conclude	Combine
Draw	Complete	Choose	Appraise	Critique	Compose
Duplicate	Convert	Complete	Categorize	Debate	Construct
Identify	Demonstrate	Construct	Classify	Decide	Create
Label	Describe	Demonstrate	Compare	Defend	Design
List	Discuss	Determine	Contrast	Determine	Devise
Locate	Distinguish	Employ	Critique	Estimate	Forecast
Match	Establish	Examine	Debate	Evaluate	Formulate
Memorize	Execute	Illustrate	Deduct	Examine	Generate
Name	Explain	Interpret	Determine	Judge	Hypothesize
Order	Generate	Manipulate	Diagnose	Justify	Imagine
Recall	Interpret	Modify	Differentiate	Prioritize	Invent
Recognize	Outline	Operate	Examine	Recommend	Originate
Relate	Predict	Perform	Explain	Review	Plan
Reproduce	Report	Practice	Identify	Select	Predict
Select	Summarize	Produce	Investigate	Support	Pretend
State	Translate	Solve	Research	Verify	Produce
		Use	Specify	Weigh	Propose

Instructions for Committee Work

TASK: REVIEW THE ITEM BANK AND EDIT ITEMS OR DEVELOP NEW ITEMS

1. Review the content and formatting of the **Item Bank**, **Item Status**, and the **Blueprint for Instruction and Assessment** and the **Instructional Framework** documents.

- Total number of Items and the breakdown of items by New, Edited, Active, and Operational is shown at the top of the Item Bank.
- Standards: Bold and CAPS
- Measurement criteria: Bold and Upper/Lower Case
- Coding breakdown (*example: 43.1.2.14*): **First number** is the program number in the assessment database. *You can disregard this number for the alignment task.* **Second number** is the standard. **Third number** is the measurement criterion. **Fourth number** is the item number. If an item is missing in the numbering sequence, this means that the item is retired.
- Item Stem: Bold and always in question format
- Options: Four options with answer bold and in "a" position
- Difficulty Index (only shown on the Item Analysis report): Number of students who answered the item correctly (refer to the Item Analysis document for further explanation)
- Discrimination Index (only shown on the Item Analysis report): Degree of difference between those students who know the content and those students who do not know the content (refer to the Item Analysis document for further explanation)
- Item Status and Blooms ID: Refer to Bloom's Classification for Multiple-Choice Items document for an explanation of item classification.

2. Review each item for grammar, formatting, clarity, and correctness. Although "not" items have been allowed in the past, consider rewriting these items and removing the negative meaning. Refer to **General Rules for Writing Multiple-Choice Items, Grammar and Formatting Rules**, and **How to Write Higher-Order Thinking Items**, and **Bloom's Classification for Multiple-Choice Items** documents for guidelines about how to write good items. Items should be edited and/or developed on the *Master Copy* of the **Item Report** or on the **Worksheet for Multiple-Choice Items**.

3. Refer to the **Item Bank, Item Status,** and **Blueprint for Instruction and Assessment** documents to determine where items are needed.

   NOTE to Facilitator: Change item status when appropriate.
   All flagged NEW, EDITED, and ACTIVE items *that are edited* will become or remain EDITED items.
   All flagged (and unflagged) EDITED items *that are not edited and not retired* will become ACTIVE items.
   All flagged and unflagged ACTIVE items *that are not edited or not retired* will become OPERATIONAL items.

The facilitator should collect all items to ensure the integrity of the Technical Skills Assessments.

Instructions for Committee Work

TASK: ALIGN ASSESSMENT ITEMS TO NEW/UPDATED STANDARDS AND MEASUREMENT CRITERIA

1. Review the content of the new/updated **Standards and Measurement Criteria (alignment document)** and the content and formatting of the items in the **Item Bank**.

- Total number of Items and the breakdown of items by New, Edited, Active, and Operational is shown at the top of the Item Bank.

- Standards: Bold and CAPS

- Measurement criteria: Bold and Upper/Lower Case

- Coding breakdown (*example: 43.1.2.14*): **First number** is the program number in the assessment database. *You can disregard this number for the alignment task.* **Second number** is the standard. **Third number** is the measurement criterion. **Fourth number** is the item number. If an item is missing in the numbering sequence, this means that the item is retired.

- Item Stem: Bold and always in question format

- Options: Four options with answer bold and in "a" position

- Difficulty Index (only shown on the Item Analysis report): Number of students who answered the item correctly (refer to the Item Analysis document for further explanation)

- Discrimination Index (only shown on the Item Analysis report): Degree of difference between those students who know the content and those students who do not know the content (refer to the Item Analysis document for further explanation)

- Item Status and Blooms ID: Refer to Bloom's Classification for Multiple-Choice Items document for an explanation of item classification.

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2. The alignment process involves determining the status of each item:
   - This is a good item and aligns with a new standard/measurement criterion. (Identify the alignment.)
   - With changes, this item aligns with a new standard/measurement criterion. (Identify the alignment.)
   - This item is not relevant and does not align with a new standard/measurement criterion. The item should be retired.
   - Continue this task until all items have been aligned, marked for modification, and/or retired.

3. All results are recorded by the facilitator on the *Master Copies*:
   - On the *Master Copy* of the **Standards and Measurement Criteria (alignment document)** in the column to the left of the measurement criterion, enter the standard number, measurement criterion number, and item number.

Items from Item Bank	STANDARD 1.0 APPLY SANITATION PROCEDURES	
1,1,2, 1,1,3	1.1	Define the concept of HACCP (Hazard Analysis Critical Control Point)
1.6.3	1.2	Identify major reasons for and recognize signs of food spoilage and contamination
1.3.2, 1.3.5	1.3	Identify the most common foodborne illnesses

   - On the *Master Copy* of the **Item Bank** to the left of the item, write the number of the new standard and measurement criterion the item aligns with.
   - On the *Master Copy* of the **Item Bank**, circle any item that needs to be edited. These items can be edited now or later in the space by the item or on the **Worksheet for Multiple-Choice Items**.
   - On the *Master Copy* of the **Item Bank**, draw a diagonal line through items that need to be retired.

The facilitator should collect all items to ensure the integrity of the Technical Skills Assessments.

Item Analysis

Item analysis is the process of **examining the performance of individual test items**...or more simply put, identifying test items that are not working well. Item analysis consists of three types of statistics or information that we use to improve an item. This activity leads to item **reliability** (how consistently a measurement of skill or knowledge yields similar results under varying conditions) and **validity** (the degree to which the instrument measures what it's supposed to measure over time):

1. **Difficulty Index.** The difficulty index is determined by calculating **the number of students who got an item correct** (p value). A large number indicates that many students have learned the content as measured by the item. When none of the students chooses the correct answer, the p value is 0. When all students choose the correct answer, the p value is 1.0. *(Note. The name of this index is counter-intuitive in that there is **a measure of how easy the item is** not a measure of how difficult the item is.)*

2. **Discrimination Index.** The discrimination index **measures the validity of an item.** It **shows the discrimination between those students who know the content and those who do not know the content.** This index is an indication of the extent to which overall knowledge of the content area or mastery of the skills is related to the response on an item. Perhaps the most crucial validity standard for a test item is whether a student got an item correct due to his level of knowledge or ability and not due to chance or test bias. A discrimination value of .3 and above indicates that the item accurately discriminates between those who know and those who do not know the content. High values indicate good items; low indicate poor items.

NOTE: An item is flagged when it falls below these parameters:

Difficulty Index of .45 with Discrimination Index of .3   OR   Difficulty Index of .5 with Discrimination Index of .2

3. **Distractor (option) Analysis.** By calculating **the proportion of students who chose each option**, we can identify which distractors are "working" and which distractors are simply taking up space and not being chosen by many students. To eliminate guessing that results in a correct answer purely by chance (which hurts the validity of a test item), we want plausible distractors. Analyses of response options allow us to fine tune and improve items.

Helpful Hints to Understanding Item Analysis

If an item is very easy so that nearly all students answered correctly, the discrimination will be near zero. Extremely easy questions cannot distinguish among students in terms of their performance.

If an item is extremely difficult so that nearly all students answered incorrectly, the discrimination will be near zero.

The most effective items will have moderate difficulty and high discrimination values. The higher the value of discrimination, the more likely it will be to distinguish between those students who perform well on the test and those who don't.

Items with low or negative values of discrimination need to be reviewed for confusing language or an incorrect indicator.

A high level of student guessing will result in a discrimination value near zero.

Worksheet for Multiple-Choice Items

(Program Title) /   (Developed by)

Standard/Measurement Criterion: *(Use standard number and measurement criterion number, e.g., 1.1; 2.3; 10.2)* _____

Bloom's Classification: *(Use Knowledge Dimension and Cognitive Process Dimension, e.g., A1, B3, C4* _____

Question:

Correct Answer:
a)

Plausible Incorrect Options:
b)

c)

d)

If the above item requires a graphic/image—
- *Attach a copy or provide it in electronic format, e.g., GIF, PING, or JPEG—5" to 6"*
- *If from a copyrighted source, cite the source and provide written permission to use the image*
- *Images may need to be found and scanned*
- *Make a rough drawing that can be turned into good line art with dimensions, arrows, etc*

Check Your Work (or someone else's work)

	Yes	No
ABOUT THE ITEM REFERENCE:		
Are the Standard, Measurement Criterion, and Bloom's Classification identified?		
ABOUT THE ITEM STEM:		
Is the stem stated as a question?		
Is the stem clearly worded without unnecessary words?		
Is the stem without jargon or brand names?		
Is the stem grammatically correct?		
Is the question based on important aspects of the standard/measurement criterion?		
Are words such as NOT, TRUE, PRIMARILY, and BEST capitalized?		
ABOUT THE ITEM OPTIONS (distractors):		
Are there four options?		
Are the options consistent in length (parallel in structure)?		
If the options are complete sentences, are they followed by a period?		
Are the options grammatically correct?		
Is the best or the correct answer identified?		

Instructions for Committee Work

TASK: DEVELOP ITEMS USING THE BLUEPRINT FOR INSTRUCTION AND ASSESSMENT
     AND THE INSTRUCTIONAL FRAMEWORK

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1. Review these documents before developing new items:
   - **Industry-validated Technical Standards and Measurement Criteria.** This document identifies the knowledge and skills that apply to the practices and processes used in design, manufacture, installation, and/or engagement of a material, product, or assembly. The standards and measurement criteria represent the minimum of what teachers should teach to prepare students for entry-level employment and further training and education.

   - **Blueprint for Instruction and Assessment.** This document illustrates the relationship among program standards, instructional time, and student success on the Technical Skills Assessments. Specifically, blueprints identify clusters of standards in content domains and recommend a percentage of instructional time for each domain which also aligns with the degree to which the content of the standards is tested.

   - **Instructional Framework.** This document explains and expands the content of the measurement criteria. This helps teachers know what they should teach and, as well, guides the multiple-choice items to be written for the Technical Skills Assessments.

2. Review the following guidelines for developing items:
   - **General Rules for Writing Multiple-Choice Items**
   - **Grammar and Formatting Rules**
   - **How to Write Higher-Order Thinking Items**
   - **Bloom's Classification for Multiple-Choice Items**

3. Develop multiple-choice items
   - Refer to the **Item Bank, Item Status,** and **Blueprint** to determine the need for items.
   - Develop items using the **Worksheet for Multiple-Choice Items** and the **Check Your Work** document.

The facilitator should collect all items to ensure the integrity of the Technical Skills Assessments.

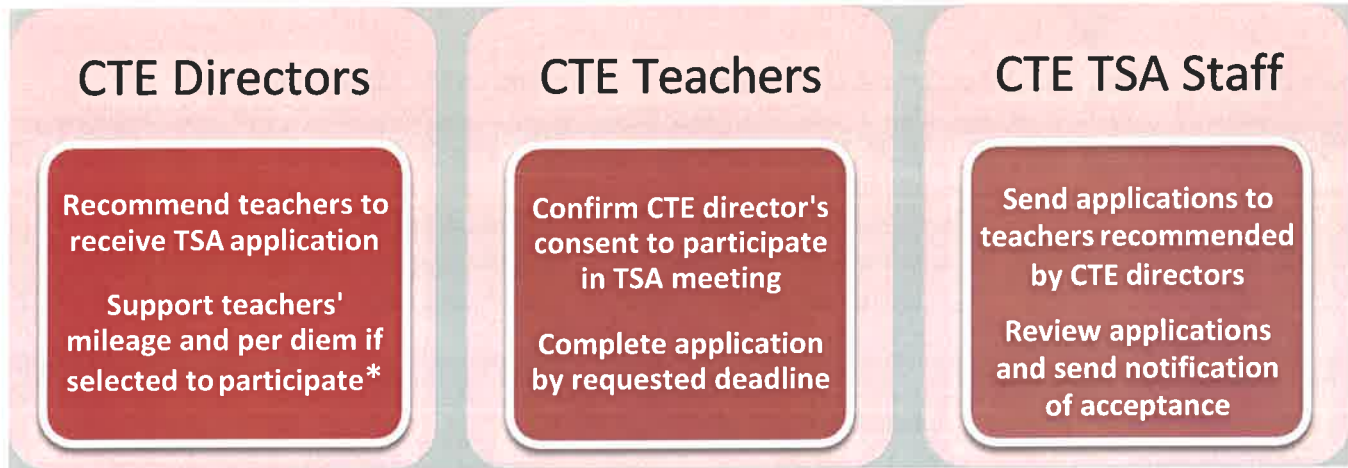# TECHNICAL SKILLS ASSESSMENT MEETINGS for 2020

SUPER SATURDAYS GALORE

Please note that all meetings are held on Saturday unless otherwise indicated on the table below.

Saturday, January 11	Saturday, February 1	Application/Notification
AgriScience	Aircraft Mechanics	
Air Transportation	Architectural Drafting	**Application available:** November 1, 2019
Cosmetology and Related Services	Automotive Technologies	**Application deadline:** December 6, 2019
Home Health Aide	Automotive Collision Repair	**Notification of acceptance:** December 13, 2019
Mental and Social Health Technician	Fire Service	
Saturday, February 22	**Saturday, March 7**	**Application/Notification**
Culinary Arts	Automation and Robotics	
Hospitality Management	Cabinetmaking	**Application available:** January 17, 2020
Nursing Services	Carpentry	**Application deadline:** February 5, 2020
Sports Medicine and Rehabilitation	Electronic Technologies	**Notification of acceptance:** February 12, 2020
Therapeutic Massage	Heavy Equipment Operations	
Saturday, April 25	**Saturday, May 2**	**Application/Notification**
Construction Technologies	Animation	
Dental Assisting	Computer Maintenance	**Application available:** March 20, 2020
Law and Public Safety	Diesel Engine Repair	**Application deadline:** April 8, 2020
Pharmacy Support Services	Digital Communication	**Notification of acceptance:** April 15, 2020
Precision Machining	Music and Audio Production	
Veterinary Assisting		
Tuesday, June 2*	**Wednesday, June 3***	**Application/Notification**
Digital Photography	Early Childhood Education	
Digital Printing	Education Professions	**Application available:** April 3, 2020
Film and TV Production	Medical Records Technologies	**Application deadline:** April 24, 2020
Finance	Stagecraft	**Notification of acceptance:** May 8, 2020
Graphic Design		
Saturday, June 6	**Saturday, June 13**	**Application/Notification**
Accounting	Bioscience	
Fashion Design and Merchandising	Business Management	**Application available:** April 3, 2020
Interior Design and Merchandising	Business Operations	**Application deadline:** April 24, 2020
Laboratory Assisting	Marketing	**Notification of acceptance:** May 8, 2020
Medical Assisting Services	Emergency Medical Services	
Tuesday, June 30*		**Application/Notification**
Engineering		
Mechanical Drafting	Learning that works for Arizona CTE	**Application available:** April 3, 2020
Network Security		**Application deadline:** April 24, 2020
Software and App Design		**Notification of acceptance:** May 8, 2020
Welding Technologies		

See next page for the **Recommendation—Application—Notification Process** and additional details about the Technical Skills Assessment Meetings.

Recommendation-Application-Notification Process
for the Technical Skills Assessment Meetings for 2020

CTE Directors

Recommend teachers to receive TSA application

Support teachers' mileage and per diem if selected to participate*

CTE Teachers

Confirm CTE director's consent to participate in TSA meeting

Complete application by requested deadline

CTE TSA Staff

Send applications to teachers recommended by CTE directors

Review applications and send notification of acceptance

*The Technical Skills Assessment Meetings bring teachers together to develop, review, and edit assessment items for the TSAs. Teachers tell us this is some of the best professional development/personal networking they have ever experienced. District funds allocated for professional development can be used to cover teachers' mileage and per diem expenses to participate in the TSA meetings.

LOCATION AND TIME	All meetings are held at the Arizona Department of Education, 3300 N Central Avenue, Phoenix. Meetings start at 8:30 and adjourn no later than 4:30. Lunch is "on your own."
TEACHER COMMITTEES	Each teacher committee is 8-10 teachers plus a facilitator. Committees include teachers who have experience with the item development/analysis process, teachers who are new to the process, and teachers who represent various geographic areas.
PROFESSIONAL DEVELOPMENT CREDIT	Teachers will earn 8 hours of professional development credit. *There is no financial compensation provided by the state for this work. Participants are asked to check with their CTE director to request mileage reimbursement and per diem.*
APPLICATION PROCESS	CTE directors recommend teachers to receive an application for the Technical Skills Assessment Meetings. So as not to omit any teacher from applying, an application will be sent to all teachers with the request to contact their director for consent and to request financial support.
NOTIFICATION OF ACCEPTANCE	Teachers and their directors are notified by the TSA staff of their acceptance to participate.

To recommend teachers for TSA Meetings, to request TSA Meeting Applications, to get answers to other TSA questions contact:

Judy Balogh, 602-542-4155, judy.balogh@azed.gov, TSA policies and processes, outcomes and results
Cathy Reed, 602-364-0104, cathy.reed@azed.gov, TSA meeting process, teacher tools, technical standards
Jet Wilson, 602-542-5540, jet.wilson@azed.gov, TSA meeting application and notification process
Julie Shumate, 602-542-5044, julie.shumate@azed.gov, TSA registration, student testing, TSA resources

The Unique Qualities of TSA Facilitation

What is TSA facilitation? a constructive, productive process where teachers—no matter where they are from or how many years they have taught—are welcomed, encouraged, and respected

What does a TSA facilitator do? guide and control the item development process and record the committee's outcomes

How does a TSA facilitator guide the process? by explaining, clarifying, motivating, reaching consensus, creating and maintaining an atmosphere of trust and respect

What qualities should a TSA facilitator have? sensitivity, ability to listen, tact, sense of timing, sense of humor

What characteristics of the teacher committee are important to recognize? male-female ratio, number of years teaching, school location, overall size of the committee

What are possible tasks for teacher committees? item alignment, developing and formatting new items, reviewing and editing items, assigning Bloom's classification to items

Multiple-Choice Questions

| A | B | C | D |

Assessment-related Definitions

Accountability Testing. The demand by public officials, employers, and taxpayers for school officials to prove the educational impact of the money invested annually in education has led to the rise of "accountability testing" designed to sample what students have learned. The development of the Arizona Skill Standards Assessment System is an example of Arizona's meeting this need.

Bloom's Taxonomy. The taxonomy is a cognitively guided instructional and assessment strategy designed to help teachers understand and implement standards-based curriculums. This two-dimensional framework focuses on knowledge and cognitive processes that define what students are expected to learn. Specifically, it explores curriculums from three perspectives: cognitive psychologists (learning emphasis), curriculum specialists and teacher educators (curriculum and instruction emphasis), and measurement and assessment experts (assessment emphasis).

Blueprints for Instruction and Assessment. Blueprints for Instruction and Assessment are developed by teachers for all programs. They illustrate the relationship among program standards, instructional time, and student success on the Technical Skills Assessments. Specifically, blueprints identify clusters of standards in content domains and recommend a percentage of instructional time for each domain which also aligns with the degree to which the content of the standards is tested.

Criterion-referenced Assessment. This type of assessment measures what a student understands, knows, or can accomplish in relation to instructional outcomes. The objective is to determine whether the student has learned the material. Criterion-referenced assessment is often compared to norm-referenced assessment which compares one test-taker's results to the results of his or her peers.

Curriculum-Instruction-Assessment (C-I-A) Triad. In this instructional framework, curriculum is clearly communicated, organized, and standards-based; instruction is grounded in best practices and utilizes clearly defined units of instruction with high expectations for all learners; and assessment provides a context for data-based decision-making such as determining if there is a problem and what can be done to make improvements and demonstrating that what is being done actually does work. For Career and Technical Education, the C-I-A Triad is analogous to the Technical Standards, Blueprint for Instruction and Assessment, Instructional Framework, and the Technical Skills Assessment.

Instructional Framework. This document is developed by teachers for all programs and further identifies, explains, and expands the content of the measurement criteria. This information helps teachers in their understanding of the measurement criteria and, as well, guides the multiple-choice items written for the TSAs.

Item Analysis. Item analysis examines the performance of individual test items to identify those that are not working well. Three types of statistical information are collected and used to improve items: difficulty index, discrimination index, and distractor analysis. The purpose of item analyses is to improve the reliability of items (how consistently a measurement of skill or knowledge yields similar results under varying conditions) and validity of the test (the degree to which the instrument measures what it is supposed to measure over time).

Item Bank. This is a term for a repository of test items of a multiple-choice format that belong to the Technical Skills Assessments testing application. The item bank contains all the information pertaining to items, e.g., link to the program standard and measurement criterion, item status, and Bloom's classification.

Item Development. The item development process involves a trained facilitator working with content experts (CTE teachers and community college instructors) to development assessment items based on the instructional content of a program's standards and measurement criteria. Items are multiple-choice questions with four possible options and only

one correct answer. Each item is classified according to its status (new, edited, or active) and is provided a Bloom's classification. All items for a program and the information about those items are stored in the Item Bank.

Item Status. Assessment items are managed by item status, which is also a way to control the functionality of the item. There are four possible statuses of items in the Technical Skills Assessment system: new, edited, active, and operational. Items are selected for the test only when they have reached operational status and statistically proven to be reliable and valid.

Multiple-Choice Items. Each multiple-choice item consists of a stem phrased as a question followed by four options consisting of one correct response and three distractors. Students may be asked a question about a graphic or and image. Graphics and images may also appear as options from which to select the correct response. Why multiple-choice items? They can assess any content at a variety of Bloom's levels, the probability of guessing correct answers is lower than true/false items, they are quickly and reliably scored, and they are suited for statistical item analysis that leads to improved test quality.

Pass Score. All Technical Skills Assessments have a 60% minimum pass score. Students are scored on the operational items only--not the field-tested items--with scores shown as percentages. This allows test scores to be across students a program. Students who successfully complete the pass score receive and industry-endorsed Congratulatory Letter and Certificate.

Technical Skills Assessment (TSA). End-of-program assessments are designed for CTE students who are in their final Carnegie Unit of the state-identified sequence of courses for a program. Assessments consist of 100 multiple-choice questions aligned to program standards. Students who successfully pass the TSA receive a congratulatory letter and certificate endorsed by the Arizona's business and industry leaders.

Technical Standards and Measurement Criteria. Industry representatives convene under the guidance of a trained facilitator to develop and validate knowledge and skill statements that apply to the practices and processes used in the design, manufacture, installation, and/or engagement of a material, product, or assembly. These knowledge and skill statements, or standards and measurement criteria, represent the entry-level performance of work in an occupation. A CTE program is a sequence of courses that delivers a set of industry-validated standards and leads to an industry-recognized credential, postsecondary education, and employment. Assessment items that are aligned with standards and measurement criteria are the basis for determining the degree to which learning has been mastered.