

NCCER Instrumentation
December 2, 2016



Certifying Organization	National Center for Construction Education and Research (NCCER) http://www.nccer.org/	
Description of Credentials	<p>NCCER certifications provide students with immediate credibility among hiring executives in construction, manufacturing, maritime and all related industry sectors, giving certified students an advantage in attaining entry-level employment.</p> <p>Instrument Fitters and Technicians perform key installation and maintenance functions across several industries. The field of instrumentation covers important processes and knowledge areas, including piping, tubing, fasteners, and metallurgy.</p> <p>Instrumentation Technicians and Fitters are familiar with electrical systems, craft-specific drawings, and are experts in the hand and power tools specific to their trade. NCCER's curriculum addresses all of the learning objectives associated with this broad and demanding field, in areas such as Fasteners, Relays and Timers, and Grounding and Shielding of Instrumentation Wiring.</p>	
	Level 1	<p>Certification in NCCER Instrumentation Level 1 shows the individual has demonstrated basic knowledge in Hand Tools for Instrumentation; Electrical Safety; Power Tools for Instrumentation; Electrical Systems for Instrumentation; Metallurgy for Instrumentation; Fasteners, Instrument Drawings and Documents, Part One; Gaskets and Packing; Lubricants, Sealants, and Cleaners; Flow, Pressure, Level, and Temperature; Tubing, Piping – 2 inches and under and Hoses. For a complete description click here , pages 1-3.</p>
	Level 2	<p>Certification in NCCER Plumbing Level 2 shows the individual has demonstrated Instrumental skills including Craft-Related Mathematics; Instrument Drawings and Documents, Part Two; Principles of Welding for Instrumentation; Process Control Theory; Detectors, Secondary Elements, Transducers, & Transmitters; Controllers, Recorders, and Indicators; Control Valves, Actuators, and Positioners; Relays and Timers; Switches and Photoelectric Devices; Filters, Regulators, and Dryers; Analyzers and Monitors; Panel-Mounted Instruments; Installing field-Mounted Instruments and Raceways for Instrumentation. For a complete description click here , pages 4-8.</p>
	Level 3	<p>Certification in NCCER Instrumentation Level 3 shows the individual has demonstrated Instrumental skills including Instrument Fitter's Math; Layout and Installation of Tubing and Piping Systems; Clean, Purge, and Test Tubing and Piping Systems; Receive, Inspect, Handle and Store Instrumentation; Instrumentation Theory; Grounding and Shielding of Instrumentation Wiring; Terminating Conductors and Protective Measures for Instrumentation. For a complete description click here , pages 9 – 10.</p>
	Level 4	<p>Certification in NCCER Instrumentation Level 4 shows the individual has demonstrated Instrumental skills including Digital Logic Circuits; Instrument Calibration and Configuration; Performing Loop Checks; Troubleshooting and Commissioning a Loop; Tuning Loops; Programmable Logic Controllers; Distributed Control Systems and Analyzers. For a complete description click here , pages 11 – 12.</p>
Part of which Graduation Pathways ¹	<u>Integrated:</u> Manufacturing, Construction Crafts and Logistics	
Associated with Which Careers?	<p><u>4 Stars:</u> Electrical and Electronics Engineering Technicians; Avionics Technicians; Maintenance and Repair Workers, General;</p> <p><u>3 Stars:</u> Electrical and Electronic Equipment Assemblers</p>	
Entry-Level Annual Salaries	\$20,178 - \$40,802	



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Industry-Based Certification Requirements: Students						
Standard / Curriculum	<p>NCCER Core is a prerequisite for completion of all NCCE certifications (and all Helper pathways). Classes may be taught concurrently, but Level 1 or above certifications cannot be attained until NCCER Core has been successfully completed.</p> <p>For Level 1 - 4 Instrumentation Competencies, click here .</p> <p>For Level 1 – 4 Performance Tasks, click here .</p>					
Testing Methodology	Paper?	Yes	Online?	Not at this time	Performance Exams / Tests?	Yes
Re-Testing (if available)	Re-Testing Procedures	Students may retest after 48 hours. During the 48 hour span, students may not be exposed to the assessments or any questions.			Max Attempts	No maximum number of attempts
Testing Details (including any age requirements / accommodations)	<p>NCCER does not have any age restrictions for their certifications.</p> <p>NCCER assessments must be supervised by a certified NCCER Craft Instructor or Proctor.</p> <p>Before any assessment is given to the student, instructor must have an NCCER Registration and Release Form on file for the student with parent/guardian signature.</p> <p>Students must pass written exam with a score of 70% or better. Performance tasks are pass/fail and must be signed off by the certified Craft Instructor.</p>					
Industry-Based Certification Requirements: Teachers						
<i>Bulletin 746, Chapter 5: All Louisiana teachers providing instruction in a course that leads to an IBC must hold the certification that they're teaching students to attain.</i>						
Instructor Certification Requirements (by certifying agency)	<p>Instructor must be a certified NCCER Instrumentation Instructor with current certification at the level he /she is teaching. The state must have a Form 702A and documentation of skill on file at the Department of Education for instructors to certify students in NCCER Instrumentation.</p> <p>To maintain NCCER Instructor certification, instructor must have Form 200 approved by NCCER before ICTP expiration (certification will be extended 3 years from completion date on Form 200).</p>					
Proctoring / Test Security (if any)	<p>Only Master Trainers and NCCER Certified Instructors will have access to the tests. Tests will be administered by the instructor or Curriculum (ICTP) Proctor.</p> <p>Testing accommodations, specifically tests read aloud, are only available for designated students. NCCER has given permission for school personnel to administer the assessment in a one-on-one setting provided the NCCER Craft Instructor ensures test security.</p>					
Certification Tracking						
Credentialing Documentation	<p>All scored module tests (both written and performance) will be kept in a secure physical or electronic location for at least three years. Results are submitted through the NCCER Registry. Students, upon completion of NCCER Core and all NCCER Electrical modules, will receive a certificate and/or NCCER Card (this card is provided one time upon completion of first NCCER certification).</p>					
Certification Tracking System	Online Tracking System?	Yes	Details	N/A		
Other Details	Expiration Timeframe?	NCCER Instrumentation Certifications do not expire.				

