

Instrumentation Technician

Keep the sensors, valves and control systems in a plant telling the truth. Two years of school, industrial pay.

TYPICAL PAY

\$67,820

a year, full time

PAY RANGE

\$47k to \$107k

starting to experienced

TIME TO QUALIFY

2 to 4 years

after high school

DEMAND

Very high

job outlook

LICENCE NEEDED

No

anyone can do it

WHERE YOU WORK

Refineries, power plants, chemical plants, paper mills, food factories

How you get there

- 1 High school diploma** Grade 12
 Algebra, physics and any electronics or shop class. A clean driving record and a drug test are part of every plant hire.
- 2 Pick your route** Decision point
 A two-year associate degree in instrumentation, process technology or electronics, or a registered apprenticeship with a plant, a utility or a union local.
- 3 Learn the four disciplines** 2 years of study
 Pressure, temperature, level and flow measurement, plus the electronics, pneumatics and control loops that tie them together.
- 4 Get hired and get plant-qualified** First 3 to 6 months
 Every site has its own safety training, permit systems and hazardous area rules. Expect several weeks before you are allowed to touch anything alone.
- 5 Certify and specialize** After 2 to 5 years on the job
 The International Society of Automation runs the Certified Control Systems Technician credential, and manufacturers certify you on their own control platforms.

Pros and cons

- + Industrial pay after a two-year program, or no tuition at all on an apprenticeship
- + Genuinely short of people, so the work is easy to find
- + The skill transfers to any process plant in the country
- Shift work, nights, weekends and being called in at 2am
- Plants are loud, hot, cold and occasionally dangerous
- The jobs are where the plants are, which is often not where you grew up

Optional boosts

Certified Control Systems Technician. Control system vendor certification. Analyzer specialist. Safety instrumented systems.

Good to know

Everything traces back to one set of standards

A calibration is only meaningful if it chains back to a national standard. In the United States that chain ends at the National Institute of Standards and Technology, and the paperwork proving your instrume...

A wrong reading can level a plant

Process plants run close to limits that only exist as numbers on a screen. If a level or pressure instrument quietly drifts, the control system happily steers the plant off a cliff. Several major industrial ac...

Where these numbers come from

My Next Move: Calibration Technologists and Technicians (17-3028.00)

International Society of Automation: certification

Apprenticeship.gov: becoming an apprentice

Lamar Institute of Technology, industrial and engineering technology programs

Numbers checked September 2026. Pay figures are typical full-time annual amounts in United States dollars, based on Bureau of Labor Statistics wage data and published pay scales. They vary by state, employer and experience. Tuition is for in-state students at public schools unless the card says otherwise. Sources, links and the click-through version: <https://career.help/us/careers/instrumentation-technician>



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