

What does it take to become an **INSTRUMENTATION TECHNICIAN**?

Instrumentation Technicians install, maintain and repair the measuring and control devices used in industrial and commercial processing. They work with a wide variety of pneumatic, electronic and microcomputer devices used to measure and control pressure, flow, temperature, level, motion, force, and chemical composition. In general, they consult manufacturer manuals to determine test and maintenance procedures; and use pneumatic, electrical and electronic testing devices to inspect and test instrument and system operation. They diagnose faults and repair, maintain and adjust system components or remove and replace defective parts. They also calibrate and maintain components and instruments according to manufacturer specifications.

Skills & Knowledge

High school courses in mathematics and physics provide a strong foundation for an Instrumentation Technician's career. You'll have to work well without direct supervision, whether you're working solo or within a team. This work requires physical dexterity and endurance; frequently standing or bending for many hours. Good instrumentation technicians are problem solvers. They are diligent, attentive and safety conscious. The work is most rewarding for those who enjoy problem-solving, developing an area of expertise, and working with little direction or supervision.



Training

Training is offered at registered training institutions and course offerings usually cover the basics of diagnostic techniques, electronics, and other related subjects. Because automated processes are becoming increasingly sophisticated and computerised, some employers prefer to hire technicians who have

completed a formal post-secondary training programme. Many employers train apprentices on-the-job on various aspects of the work including diagnosing and identifying malfunctions and the use of computerised tools and metering systems. Apprentices advance to more complex work as they show competence.

Working Conditions

Working conditions can change dramatically from one job to another. Technicians working with manufacturing processes may be exposed to confined spaces, high elevations, noisy, dusty, cold or unusually warm conditions. There may also be exposure to radiation devices and laser equipment. There are some safety hazards, particularly when processing chemicals or working with substances under pressure or at high temperatures. The track record for safety in this profession is excellent with a low incident rate. Overtime is common and technicians are sometimes on-call at night and on weekends.

Job Prospects

With most industries becoming increasingly automated, instrumentation technicians are needed virtually anywhere there are control and metering systems. The production-intensive manufacturing and mining industries rely on automated processes, and as such, are major employers of instrumentation technicians. Opportunities can also come from the need to replace workers who retire or leave the occupation. The key to climbing the career ladder, or finding these exciting jobs in the first place, is decent training and education. Experienced instrumentation technicians may advance to supervisory positions, be employed as engineering technicians, or move into sales.

You too can live your passion and qualify as an Instrumentation Technician. If you are mechanically-inclined, detail-oriented, physically fit and strong, and possess strong problem solving skills, you are a good candidate.

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