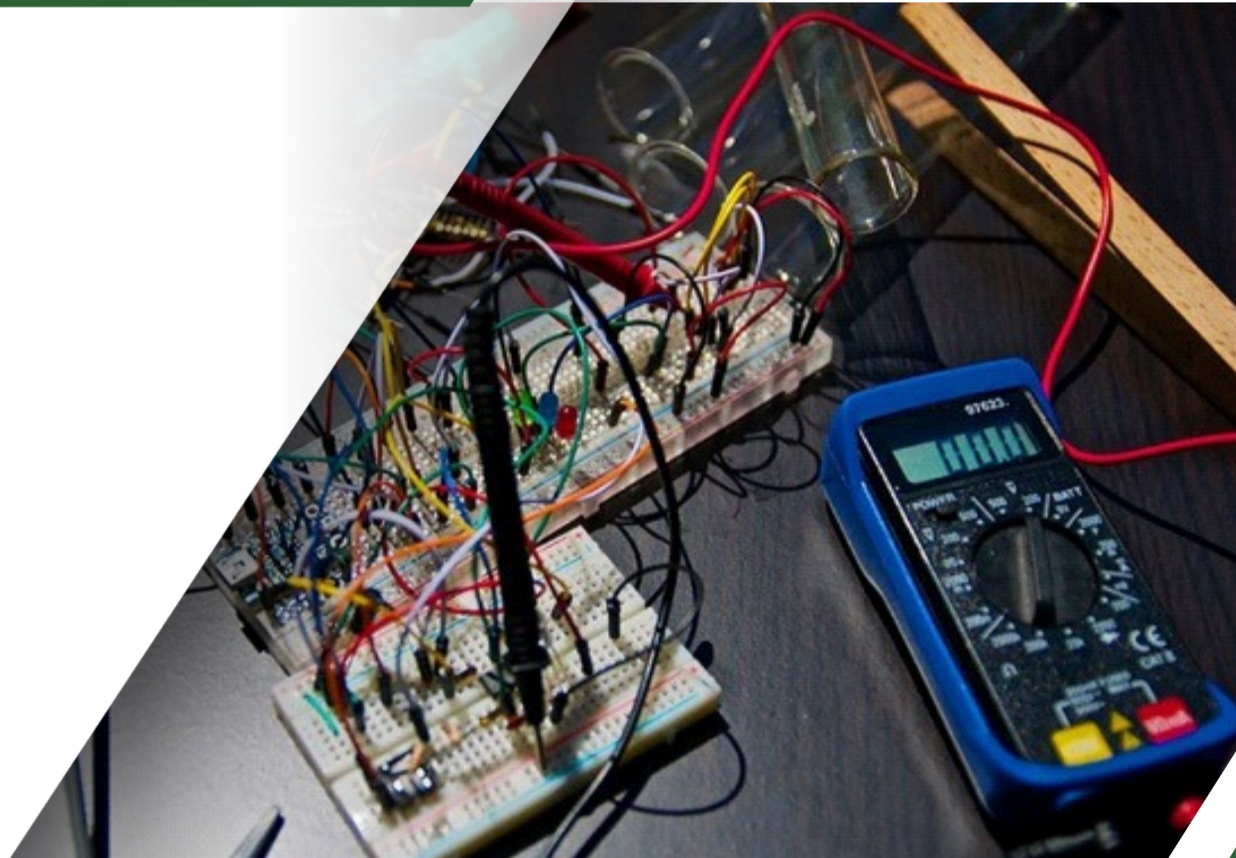


Changing Lives Through Engineering

# PROSPECTUS

## Instrumentation



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## Instrumentation qualification purpose

An instrument mechanic manufactures, and repairs instruments and recalibrates old instruments. The instrument mechanic plays a vital role in ensuring that automatic processes and plant systems operate correctly and efficiently. The control of nearly all manufacturing processes depends on instruments that may be electrical, mechanical, or hydraulic, which are responsible for measuring the pressure, temperature, position, level, mass or flow of solids, fluids, and gases. Should the plant processes not operate according to specifications, the instrument mechanic diagnoses the fault and carry out repairs as quickly as possible.

### Foundational Learning Competence

Min GR.9 and older than 16 years  
Subjects required with minimum E symbol  
Mathematics, Industrial Electronics, Instrument  
Trade Theory

### Trade Test requirements

- Learners must provide proof of completion of all required modules by means of statements of results and work experience including Foundational Learning Competence or equivalent.
- 18 months work experience

### Qualification outcomes:

- Maintain process control systems.
- Maintain Programmable Logic Controllers (PLC).
- Demonstrate understanding of the principles of Process Communication Systems.
- Maintain and support policies and procedures to solve a variety of problems within a Measurement, Control, and Instrumentation field.
- Range: Problems include both familiar and unfamiliar.
- Critical Cross Field Outcomes:

- The learner can identify deviations related to equipment and procedures and creatively finding solutions through clearly defined methods and techniques.
- Work effectively with others as a member of a team daily to effectively provide maintenance and related services to process control systems.
- Organise and manage oneself and one's activities responsibly and effectively by proactively handling and maintaining instrumentation, equipment, and tools.
- Communicate effectively using appropriate verbal and nonverbal skills to ensure a smooth shift take-over and hand-over and reporting all work-related issues.
- Demonstrate an understanding of the world, as a set of related systems by recognising that problem solving in the context of Instrumentation and Analytical equipment does not happen in isolation.
- Use science and technology to show responsibility towards the environment and health of the broader community by complying with health, safety and environmental policies and procedures as dictated by legislation.

### Knowledge & Practical component duration:

Phase and duration of each phase to completed at one of ATI's Campuses.

- Phase 1 – 15 Weeks
- Phase 2 – 12 Weeks
- Phase 3 – 8 Weeks
- Phase 4 – 4 Weeks  
(Revision and Trade Test)



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## Cost:

Quotation available on request

## Accommodation:

Please enquire about availability

## Career guidance assessment:

We recommend our Career Path Assessment prior to enrolling to ensure that you have chosen the trade and career that suits you.

## E-Learning:

As an enrolled learner, you will have access to all your learning material online which you can access via a login to our E-Learning system

The lecture modules will include video lectures, presented by our highly skilled instructors and assessments to test your knowledge.

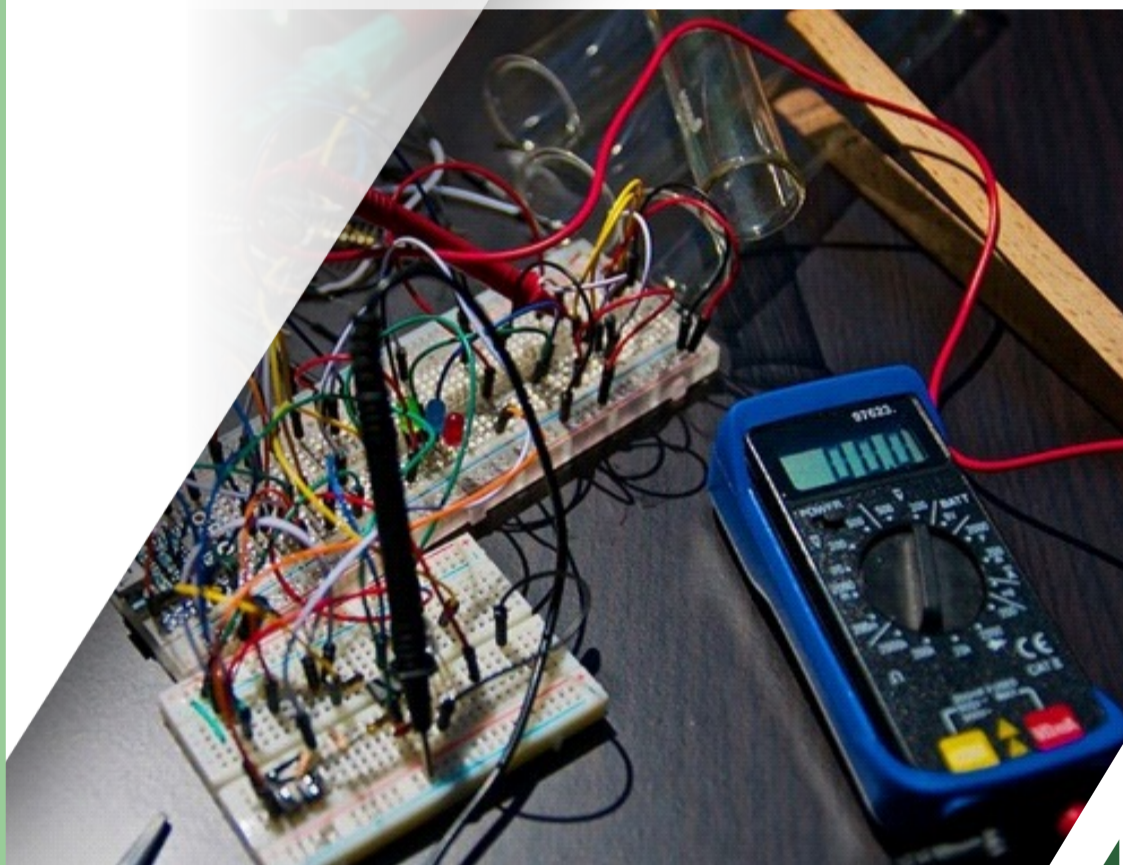
Your training content will be available to you for as long as you wish to have access; an invaluable tool to use to revisit your course material or to have access to updated course modules and video lectures.

## Quotes/Learner Enrolment:

[info@artisantraining.co.za](mailto:info@artisantraining.co.za)

[www.artisantraining.co.za](http://www.artisantraining.co.za)

[www.artisantraining.online](http://www.artisantraining.online)



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