

Apprenticeship Training Programme

Phase 1: *With Employer*

Induction Training
Introduction to Health & Safety Training
Introduction to Tools & Equipment
Introduction to Basic Skills

Phase 2: *Delivered in Training Centre (27 weeks)*

Course Content:

Induction
Installation Techniques Measurement - Pressure
Measurement - Flow
Measurement - Level
Measurement - Temperature
Automatic Control
Related Theory

Phase 3: *With Employer*

Work Based Assessments

Phase 4: *Delivered in Educational Colleges (21 weeks)*

Course Content:

Electricity, Motors & Motor Control Power Distribution
Hazardous Environments
Electronics
Measurements
Final Control Elements
Automatic Control
Related Theory

Phase 5: *With Employer*

Work Based Assessments

Phase 6: *Delivered in Educational Colleges (11 weeks)*

Course Content:

Electricity & Motor Speed Control Measurement
Switchboards & Switch Gear
Electronics
Communications Systems
Related Theory

Phase 7: *With Employer*

Work Based Assessments

The overall duration of this apprenticeship is a minimum of 4 years provided all phases are successfully completed. On successful completion of the programme the learner is awarded a Level 6 Advanced Certificate Craft – Electrical Instrumentation



For further information please contact:

Kerry ETB Training Centre,

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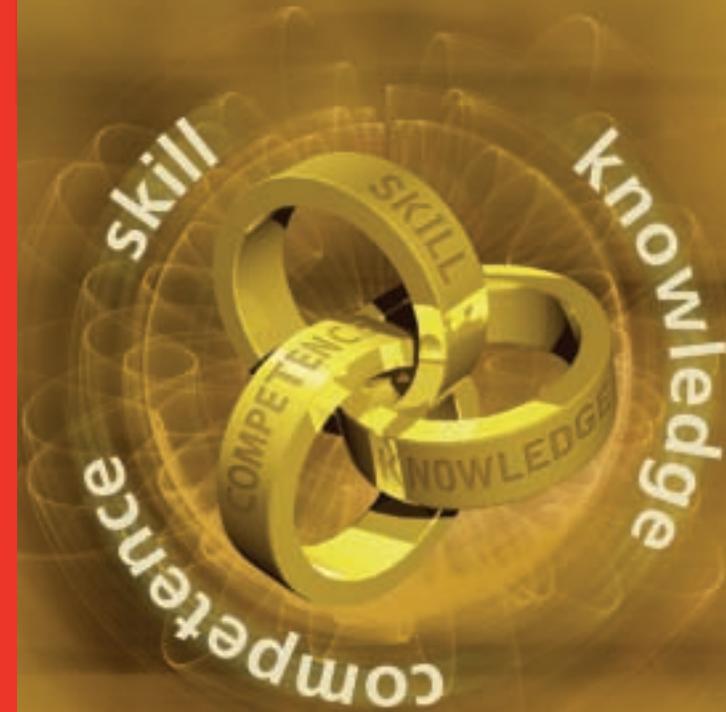
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or log onto www.SOLAS.ie

The Craft of Electrical Instrumentation



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 **Apprenticeship**

KNOWLEDGE. SKILL. COMPETENCE

Overview

The Electrical Instrumentation craftsperson is concerned with the installation, commissioning, testing and maintenance of electrical wiring systems and services; electrical plant and control equipment; process monitoring and control systems. Modern process plant includes electrical, electro-mechanical, electro-pneumatic, electronic and microprocessor based systems. In order to function effectively and efficiently, the Electrical Instrumentation craftsperson must have a broad base of technical knowledge complementary to information gathering and analytical skills.

Electrical Instrumentation craftspersons are employed in the following areas

- Installation of electrical equipment and wiring systems.
- Maintenance of motors and motor control systems
- Installation of measurement and control equipment in pharmaceutical, food and other industries.
- Maintenance of the instrumentation equipment in these industries.
- Sales of instrumentation equipment.

Work activities

The work of electrical instrumentation craftworkers involves the maintenance and repair of all instruments used in the measurement and control of process variables (e.g. in mechanical or electrical services to measure the temperature, pressure and flow, as appropriate, of electricity, water, steam, gas, air or oil). The work also involves the mechanical or electrical repair of indicators, controllers, recorders and flow meters.

Aspects of Work

- Learning new practical skills
- Working with electricity or electronics
- Being responsible for controlling or adjusting equipment
- Learning and developing new craft-related skills, knowledge and competence
- Understanding and using physics
- Using mathematics to solve technical or scientific problems
- Learning how machines work
- Understanding technical drawings and diagrams
- Work requiring accuracy and attention to detail
- Being accurate with numbers in counting, measuring and arithmetic
- Practical skills and theoretical knowledge
- Keeping accurate records of all calibrations or reports
- Being well-organised and careful with practical tasks
- Being interested in manufacturing or processing industries
- Taking responsibility for own learning, including the allocation of study time

Personal qualities and Skills

You need to be able to read, understand and analyse engineering drawings. Good number skills are important to make precise measurements and make calculations.

A practical approach to problem-solving is necessary. You need to work logically and plan your work.

Co-ordination and hand skills are important for using a wide range of machine tools, hand tools and other equipment.

Opportunities

Opportunities arise from time-to-time for promotion to supervisor level. Many people use an apprenticeship as a first step in proceeding to such occupations as instructors, teachers, training advisers, managers and owners of businesses.

Where apprentices and crafts persons have the necessary ability, initiative and basic qualifications, opportunities are available for advancement. These include advanced technological and management courses which are available in Institutes of Technology, schools of management, professional institutes, etc.

People anxious to advance themselves in their careers are advised to discover for themselves what opportunities are available.

Educational Requirements

The minimum age at which the employment of an apprentice may commence is 16 years of age.

The minimum educational requirements are:

1. Grade D in five subjects in the Department of Education & Science Junior Certificate Examination or an approved equivalent,
or
2. The successful completion of an approved Pre-Apprenticeship course
or
3. Three years' work experience gained over sixteen years of age in a relevant designated industrial activity as SOLAS shall deem acceptable

You must obtain a job as an apprentice in your chosen occupation. Your employer must be approved to train apprentices and must register you as an apprentice within 2 weeks of recruitment.

In certain crafts, apprenticeship applicants are required to pass a colour vision test approved by SOLAS.