

National Apprenticeship - Occupational Profile

Craft Occupation

Instrumentation

Industry Served

Chemical, Food Processing, Textile, Pharmaceutical, Petro-Chemical, Power Generation, Local Authority (Water and Sanitation) and the contractors and manufacturers allied to the above industries.

Profile of Craft

The Instrument Craftsperson carries out installation, maintenance and calibration of measuring instruments, sensors, transmitting and controlling devices and systems associated with the measurement, control and protection of physical quantities found in these industries. The measurement and control of these quantities enables products to be produced to specification, taking account of the safety of personnel, plant and equipment and the protection of the environment.

The systems involved consist of pneumatic, electrical, electro-mechanical, electronic, micro-processor and computer-based equipment. Emphasis is increasing on computer/micro-processor based equipment.

The Instrumentation Craftsperson has a broad skill range as well as a high level of technical knowledge in the areas of physics, chemistry, computers and engineering.

At the end of the apprenticeship, the craftsperson will be able to demonstrate competence in the following skills:

Core Skills

- Installation, maintenance and calibration of process measurement and control equipment.
- Installation and maintenance of protection and safety shut-down systems in the process industry.

Specialist Skills

Installation and maintenance of:

- First-up Systems
- Shut Down Systems
- Analytical Instrumentation
- Telemetry
- Weighing Systems
- Vibration Monitoring
- Data and Scada Systems
- Information Gathering and Logging Systems

Personal Skills

- Communications and Teamwork
- Report Writing
- Information Gathering
- Safety
- Planning and Problem Solving
- Quality Assurance
- Initiative/Adaptability
- Analytical ability
- Manual Dexterity

NOTE: Integrated curriculum includes maths, science and theory
