

# Professional Training in Process Instrument Maintenance

50 days

## Teaching aims

To know:

- The basics of maintenance, the physical and technological principles underpinning processes, associated measurements and processing.

To be able to:

- perform diagnostics using an appropriate methodology
- carry out work in complete safety.

## Target personnel – Prerequisites

Personnel working in an industrial context or with equivalent initial experience. The training will provide the necessary means for staff to progress to second-level maintenance work specifically linked to instruments and processing of the associated information.

## Teaching methods

Various audiovisual materials.

Role-play using a teaching pilot unit, models and simulators.

## Course leaders

Performed by qualified trainers, Apave engineers or technicians, with a background in the chemicals and petrochemicals industry, who also work as technical advisers to industry.

## Number of trainees

Maximum recommended: 8 people.

## COURSE CONTENT

### 1. Industrial knowledge:

This set of modules is aimed at providing the minimum level of general knowledge required to become familiar with and operate the equipment within the suggested situations.

- Pumps, exchangers. Physical principles, use, operation, characteristics.
- Coverage of the industrial physics knowledge needed to understand the physical principles used during the course.
- Automated systems
- Instrumentation
- Control
- Introduction to CAMM using software developed by APAVE
- Presentation or reinforcement of key points to enable reading of plans and diagrams.

### 2. Job-specific:

This set of modules is aimed at teaching professional techniques and practices directly linked to job-specific activities.

- Electricity, adapted to instrument users so that they can understand and work on measurement and control loop power supplies
- Electrical qualifications required for work described above
- Maintenance and repairs to control loops, using a pilot production unit.

### 3. Safety and Process Control:

This set of modules is aimed at teaching knowledge and general practices associated with maintenance.

- Methodology and maintenance
- Failure analysis
- Analysis of risks in the workplace
- Operational monitoring

### 4. Getting on in the workplace environment

This set of modules is aimed at making people aware of their role within a team and the importance of communication.

- Roles and procedures
- Communication in daily working life Dealt with in a special module and then applied throughout the course.