

Instrumentation Technician (Level 1)

Course Syllabus



1. Description

This course is intended for Operation and Maintenance personnel who will be working on instrumentation and control systems in Oil & Gas Production equipment and facilities. This course includes group study sessions designed to provide the participants with knowledge of theory and hands on training. Also included will be explanation and discussion of practices necessary to perform instrumentation maintenance safely and efficiently. The specific processes, procedures and forms required to perform instrumentation tasks in different situations and with different equipment, personnel are likely to encounter on the job. Finally, each certified personnel must pass evaluation requirements as shown below.

2. Objectives

- ❖ To learn the basic overviews of instrumentation systems and process control system typically used in the Oil and Gas Production Plant.
- ❖ To be able to use instrumentation tools and equipment, operate and maintain specific equipment in the Oil and Gas Production Plant.
- ❖ To be able to perform corrective and preventive maintenance in instrumentation tasks.

- ❖ To understand and are able to work on instrumentation systems safely and efficiently.

3. Materials

- a) Instrumentation training manuals.
- b) Slide Presentations
- c) VDO's
- d) Instrumentation tools and specific equipment related to each topic.
- e) Specific machines and engines that are related to each topic
- f) P&ID drawings
- g) All materials are in the English language.

4. Class size

4 – 15 trainees.

5. Language

- Presented by Thai instructors
- Training Manuals and VDOs in English
- Quizzes and Trainee Reports in English.

6. Who should attend:

- Instrumentation Technicians who are new for Oil & Gas fields
- Apprentice Engineers
- Should pass TOEIC with at least 350

7. Course Outline: Instrument Technician(Level1) course is comprised of 7 packages ,each package take 2 – 3 days as :

Duration	Course Code	Class Presentation	Teaching Aids, Practices
1 day	OG-P-TH02	<ul style="list-style-type: none"> • Basic Principle Of Petroleum 	<ul style="list-style-type: none"> • Manuals • VDO Summary • Quiz
1 day	OG-P-TH02	<ul style="list-style-type: none"> • Overview of Oil and Gas Processing 	<ul style="list-style-type: none"> • Manuals • VDO Summary • Quiz

1 day	OG –P-TH02	<ul style="list-style-type: none"> Wellhead Platform and Equipment 	<ul style="list-style-type: none"> Manuals VDO Summary Quiz
1 day	OG-I-TH02	<ul style="list-style-type: none"> Pressure Measurement 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz
2 days	OG-I-TH02	<ul style="list-style-type: none"> Temperature Measurement 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz
1 days	OG-I-TH03	<ul style="list-style-type: none"> Level Measurement 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz
2 days	OG-I-TH03	<ul style="list-style-type: none"> Flow Measurement 	<ul style="list-style-type: none"> Slide Presentation Hands-on training Quiz
2 days	OG-I-TH04	<ul style="list-style-type: none"> Introduction to Automatic Control 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz
1 day	OG-I-TH04	<ul style="list-style-type: none"> Final Control Element & Safety Valves 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz
2 days	OG-I-TH01	<ul style="list-style-type: none"> Fire & Gas Detection and Safety Systems and SIS 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Quiz
2 days	OG-I-TH05	<ul style="list-style-type: none"> Instrument Calibrations 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz
1 day	OG-I-TH05	<ul style="list-style-type: none"> Oil & Gas Analyzer 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Quiz
2 days	OG-I-TH06	<ul style="list-style-type: none"> Introduction to Distributed Control System (DCS) 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz

2 days	OG-I-TH07	<ul style="list-style-type: none"> Control Loop Troubleshooting 	<ul style="list-style-type: none"> Equipment Demo Slide Presentation Hands-on training Quiz
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7. Class duration

- 1 day = 7 hours.
- Total class - days = 24 days
- Total class – hours = 24 x 8 = 192 hours.

8. Assessment

- ❖ Quiz for each module 40 %
 - ❖ Post Test 60%
- Each trainee must meet 70% above.

9. Certificate

- Each package will be provided by MOGIT
- Completion of all packages, the certificate will be distributed and accredited as Instrument Technician, Level 1.

10. Training fee

Including : lunch, training manuals, training material, consumables and certificates.
Excluding: Accommodation and VAT.

11. Option :

- * Clients can separately select and learn each course module as their requirement
- * Clients can add more subjects as their requirement.