



**MAESTRO**  
CONSULTANTS

# CONTROL AND PROTECTION SYSTEMS MASTERY

## COURSE OUTLINE 2024

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## **TRAINING TITLE**

CONTROL AND PROTECTION SYSTEMS MASTERY

## **VENUE**

Cairo, Egypt

## **DURATION**

5 Days

## **DATES**

22 - 26 JANUARY 2024

## **PRICE**

\$5,250 per attendee including training material/handouts, morning/afternoon coffee breaks, and Lunch buffet.

## **TRAINING INTRODUCTION**

Unlock the secrets of Gas Lift Mastery! This comprehensive program is tailored for those eager to become Gas Lift Masters in the oil and gas sector. Learn how to maximize production from gas lift wells and optimize the utilization of associated products and technologies.

Delve into the intricacies of interpreting gas lift well behavior, identifying peak production phases, and understanding the offerings presented by suppliers. This training program provides answers to your queries, offering a holistic understanding of technical cases.

Starting from the basics, participants will learn the secrets of gas lift and gain expertise to:

Achieve cost savings through intelligent product selection and enhanced product knowledge for advantageous price negotiations.

Increase production with minimal investment and effort.

Attain the satisfying feeling of being in control of gas-lifted wells.

### **For Managers:**

Stay sharp by watching videos, gather new ideas for production enhancement, use course schematics to train your team, and gain respect by teaching innovative concepts. Evaluate course content to realize time-saving benefits for your team and streamline your managerial responsibilities.

### **Company Professionals:**

Build credibility and trust with customers by proposing solutions aligned with well behavior. Develop the ability to identify well problems accurately and share business opportunities within your organization.

## **TRAINING OBJECTIVES**

The course objectives include understanding gas processing concepts, developing skills in gas operations, recognizing various forms of gas lift, comprehending gas lift equipment, and achieving cost-effective production with control over gas-lifted wells.

### **Upon Completion of this Course participants will learn:**

- Gas operations for oil and gas sector operators.
- Skills in gas operations and common operational practices.
- Forms of gas lift and gas lift equipment.
- Gas lift unloading sequence and SPM design.
- Gas lift optimization and design with existing mandrels.

## **TRAINING AUDIENCE**

- Production, Petroleum, or Well Performance Engineers seeking to maximize gas lift well production.
- Field Production Personnel aiming to understand the importance of data, day-to-day monitoring, and optimization.
- Completion or Surface Facilities Engineers looking to contribute to maximizing gas lift well production.

### **PREREQUISITES:**

- Preferred understanding of inflow and outflow mechanisms.
- Basic knowledge of well architecture.
- Awareness of oilfield terms.

## **TRAINING OUTLINE**

### **Day 1 - Understanding the Forms of Gas Lift**

- Gas Lift system principles.
- Continuous, intermittent, and plunger lift.
- Various gas lift completions.
- Annular flow and special scenarios.
- Workshop and quiz.

### **Day (2): Gas Lift Equipment**

- Mandrels, latches, and kick-over tools.
- Gas lift valve types and pack-off.
- Orifice valves and rate estimation.
- Dummy valves and illustrative videos.

- Workshop and quiz.

### **Day (3): Gas Lift Valve Mechanics and Special Configurations**

- Venturi orifices and casing/tubing pressure-operated valves.
- Gas lift valve calibration and throttling effects.
- Special gas lift valves and configurations.
- Surface and plunger lift equipment.
- Workshop and quiz.

### **Day (4): Gas Lift Unloading Sequence and SPM Design**

- Unloading principles, well integrity, and initial unloading.
- Gas gradient formula and casing pressure calculations.
- Mandrel spacing design principles and temperature models.
- Guidelines for Prosper use in mandrel spacing design.
- Workshop and quiz.

### **Day (5): Gas Lift Optimization and Design with Existing Mandrels**

- Optimization strategies through monitoring and rate change.
- Gas Lift design optimization and case reviews.
- Network optimization and exercise using abacus.
- Prosper use for Gas Lift design with existing mandrels.
- Dual Gas Lift completion optimization.
- Workshop and quiz.

## **TRAINING CERTIFICATE**

**MAESTRO CONSULTANTS** Certificate of Completion for delegates who attend and complete the training course.

## **METHODOLOGY**

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of “real life” issues in their organizations.

The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.