

Course Overview:

This course offers a firm understanding of the basic system maintenance & operations of Combine Cycle Plants and is designed for those persons with no or limited knowledge of Combine Cycle Plants. The objective of this course is to give participants an understanding of basic Combine Cycle Power Plants operations as well as a fundamental knowledge on plant start-up, normal operations, shutdown and abnormal operations. A distinct emphasis upon safe, efficient power plant operations.

Course Objective:

Power Plant Maintenance: Learn all the maintenance activities required for power plants such as: gas turbines, steam power plants, combined cycles, generators, wind turbines and generators, and wind turbine farms to minimize their operating cost and maximize their efficiency, reliability, and longevity.

Power Plant Equipment: Learn about various power plant equipment including: compressors, turbines, governing systems, combustors, deaerators, feed water heaters, transformers, generators and auxiliaries, wind turbines and generators, wind turbine farms, and solar power generating plants.

Power Plant Components and Systems: Learn about all components and subsystems of the various types of power plants such as: gas turbines, steam power plants, co-generation, combined cycle plants, wind turbines and generators, wind turbine farms, and solar power generation.

Course Outline:

- Introduction
- Thermodynamic Review
- Operating Philosophy
- General Operator Responsibilities
- Balance of Plant Systems Review and Operation
- Gas Turbine Review and Operation
- Steam Turbine Review and Operation
- Combine Cycle Startup
- Turbine Operating and Maintenance Considerations
- Pre Startup Requirements
- Gas Turbine Startup
- Generator Testing, Inspection, and Maintenance
- Steam Turbine Startup
- Combine Cycle Normal Operation
- Off Peaking Operations
- GT Water Wash
- Routing Testing & Maintenance
- Combine Cycle Shutdown

Who Should Attend:**Training Language:**

EN / AR

Training Methodology:

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation

- Engineers of all disciplines
- Managers
- Technicians
- Maintenance and Operation personnel
- Other technical individuals