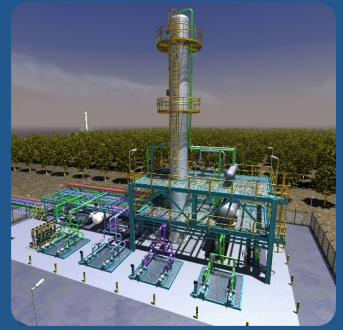# Basic Refinery & Petrochemical Operations

SIM-BRP

This interactive 2-day course combines elements of high fidelity, generic process simulators as well as a student-driven learning model centered around the INSTO Methodology. The course teaches operators how to build a mental model of various processes and stress critical thinking skills for operators that can be brought back to the control room. In this course each trainee will have access to their own generic simulators including a Heat Exchanger, Flash Drum, and Distillation simulator. Trainees will have an opportunity to startup each piece of equipment as well as spend time troubleshooting common malfunctions relating to exchanger and separating units. Tower operations that promote both safety as well as optimization are stressed throughout the course. The material of the course is applicable to refineries, petrochemical sites, chemical plants, and any other facilities that operate distillation columns.

LEVEL - Foundation

DESIGNED FOR

This training course is useful for Console Operators, Outside Operators, Console Supervisors, and Young Engineers that work with separations.

YOU WILL LEARN HOW TO

- Manually operate a cascade loop in a counter current shell and tube heat exchanger
- Determine the effects of product yields and product purities in flash drums as well as distillation columns
- Identify key operating points in a distillation column including the effects of changing throughput, operating temperature, operating pressure and reflux flow have on product specifications
- Analyze trends and relate this information to various normal and abnormal situations for exchangers, flash drums and distillation columns
- Utilize the Think EQ.U.I.P.P.E.D.™ method to expand troubleshooting options while operating a distillation column
- Discuss and simulate HAZOP analyses on common troubleshooting scenarios with exchangers and distillation columns focusing on specific mitigation techniques
- Assess critical safety concerns during the startup or restart of exchangers and distillation columns as well as simulate these startup procedures
- Practice techniques for distillation column optimization including maximizing throughput while maintain certain minimum product specifications

All classes available at your location. Contact us today.

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