

HONEYWELL UNISIM DESIGN: FUNDAMENTALS – PROCESS MODELLING USING UNISIM DESIGN

COURSE OVERVIEW

Course Number: USD-0001

Course Duration: 2 Days

Prerequisite Course (s): None

Learn to build, evaluate, and optimize steady state process flow sheets using UniSim Design. Learn techniques and shortcuts for efficient use of the program.

The course runs over two days. The course is made up of a series of hands-on workshops using examples from the natural gas processing industry, although the skills learnt can be applied to any model. Each workshop is preceded by an Instructor-guided discussion and demonstration.

COURSE DELIVERY OPTIONS

- Instructor-Led Training (ILT)
- Virtual Instructor-Led Training (VILT)

COURSE OBJECTIVES

- Getting Started
 - Introduction to UniSim Design. Setting up a first simulation case, flash calculations, utilities, and the workbook
- Propane Refrigeration Loop
 - Adding and connecting unit operations. Build a simple flow sheet
- Refrigerated Gas Plant
 - Build a more complex flow sheet, Heat Exchangers and Logical unit operations (Balance, Adjust). Case Studies
- NGL Fractionation Plant
 - Distillation columns in UniSim Design
- Oil Characterization
 - Using UniSim Design's oil environment to characterize oils
- Two Stage Compression
 - Use of Recycle unit operation to converge looped models in steady state
 - Use of Simulation Balance Tool to check heat and material balances
 - Use of Pipe Segment Unit operation
- Sour Gas Treating with DEA
 - Build a simple Contactor & Regenerator model using the Amines fluid package
- Natural Gas Dehydration with TEG
 - Build a simple TEG dehydration system
- Reporting with UniSim Design
 - Explore the different methods of reporting data from UniSim Design