جامعة قطر
QATAR UNIVERSITY

مركز أبحاث الغاز
GAS PROCESSING CENTER
COLLEGE OF ENGINEERING كلية الهندسة

جامعة قطر
QATAR UNIVERSITY

مركز خدمة المجتمع والتعليم المستمر
COMMUNITY SERVICE & CONTINUING EDUCATION CENTER

ASPEN HYSYS Training 101

Date: 12-16 October 2025
Time: 8:00 AM to 2:00 PM
Venue: GPC-Qatar University
Cost: QAR 8,000 /participant
(Min. 5 participants)

About the Course:

The overall objective of this course is to introduce the attendees to Aspen HYSYS. Participants will be able to perform various engineering analyses and utilize thermodynamic property packages required to design and operate any chemical processing facility. The course will guide attendees in constructing, navigating, and designing steady-state simulation models using Aspen HYSYS, with a focus on designing key gas processing techniques. The course is designed to cover various modules of key interest to Qatar's Oil and Gas industry, primarily focusing on the design of Propane Refrigeration Loops, Natural Gas Dehydration, and Acid Gas Sweetening.

Course Contents

- Introduction/Overview to Gas Conditioning Processes.
- Getting Started with ASPEN HYSYS.
- Aspen HYSYS Process Simulation Overview.
- Construction of Simulation Flowsheets.
- Selection of Thermodynamic Packages.
- Module 1: Natural Gas Dehydration.
- Module 2: Acid Gas Sweetening.
- Module 3: Propane Refrigeration Loop.
- Module 4: Reactive Distillation.

Attendees receive guided instruction on all essential simulation topics. Instructors provide live demonstrations of Aspen HYSYS features. Detailed course notes and workshop solutions are provided to attendees.

Eligibility Criteria:

The course is designed for engineers, chemists, operators, and technologists involved in oil and gas operations.

Dr. Sabla Alnouri

is an Associate Research Professor at the Gas Processing Centre at Qatar University. She received her B.Sc. and M.Sc. degrees in Chemical Engineering from Texas A&M University in Qatar, and her Ph.D. in Chemical Engineering from Texas A&M University in Chemical Engineering. Before joining Qatar University, she worked as an Assistant Professor at the Baha and Walid Bassatne Department of Chemical Engineering and Advanced Energy at the American University of Beirut, Lebanon. Moreover, she was a visiting assistant professor at the Chemical Engineering Department between 2017 and 2018 at the American University of Sharjah, UAE. Between 2009-2011, she took part in several research projects in collaboration with the Qatar Science and Technology Park (QSTP), the Qatar Shell Research Technology Centre (QSRTC), and the Qatar National Food Security Program (QNFSP). Her research interests involve process modeling, design, and optimization. In particular, her research involves the sustainable design of chemical process systems, emphasizing resource conservation, integrated water systems, network synthesis, planning, and design.

Dr. Hafiz Ayub

is a Research Associate at the Gas Processing Center, Qatar University. Before joining the Gas Processing Center, he worked as a Research Assistant Professor at the Department of Chemical Engineering at Yeungnam University, South Korea. He completed his Ph.D. in Chemical Engineering from the Supercomputer Modeling and Design Laboratory, Department of Chemical Engineering, Dongguk University, Seoul, South Korea. After finishing his PhD, he worked as a Postdoctoral Research Associate at the Process System Design and Control Laboratory at Yeungnam University, South Korea. His main area of research interest is process modeling, simulation, and optimization. During his research career, he published several journal papers and worked on various industrial research projects related to process modeling, design, and sustainable energy networks. Moreover, he is interested in developing machine learning models and their implementation in process and energy systems engineering.