COURSE OUTLINE

# IHS Perform Training

## Nodal Analysis for Oil & Gas Wells

## DESCRIPTION

This software workflow course provides a comprehensive methodology for understanding the Nodal Analysis model and optimizing well production. Students will learn multiphase calculations, their limitations and applications, and how to determine pressure profiles that are complicated by changing phase behaviour. Students begin the course by familiarizing themselves with the main features of IHS Perform and are shown various aspects of the software in more depth. To gain hands-on experience, students are encouraged to follow along with examples. The examples allow students to become familiar with wellbore modelling and to recognize opportunities for wellbore optimization. Basic nodal analysis theory will be explained as needed.

## TOPICS COVERED

- Wellbore pressure losses
- IPR models for both horizontal and vertical oil and gas wells
- Liquid loading prediction and unloading methods
- Tubing performance curves; tubing selection
- Absolute open flow ( wellhead and sandface) and worst case scenario reports development
- Reservoir and completion models
- Gas lift system design and optimization
- Multiphase pressure drop correlations
- Multi-Layer/Lateral downhole network modelling
- Wellbore model calibration based on production data
- Using the analytical toolbox to assist the well modelling workflow

## WHO SHOULD ATTEND

Production Engineers who want to learn or refresh their knowledge on production engineering fundamentals – from how to build a dependable reservoir deliverability model and size tubing for best well performance, to design and optimize an artificial lift system such as gas lift or downhole pumps – with the application of one of the most renowned industry standard Nodal Analysis packages to be integrated into their daily workflow.

## GENERAL NOTES

2 Day Course.
Basic Windows navigation skills are recommended prior to attending.

## REGISTER

For additional information or to register, please contact our Training Facilitator at 403.213.4200 or fek-training@ihs.com.