



Gas Processing and LNG Workshops

16 July - 20 July 2018

Five Day Introduction to Natural Gas Processing Workshop & LNG Production

16 - 20 July 2017 | \$3000

Introduction to Natural Gas Processing Workshop

16 - 18 July 2018 | \$2100

LNG Production

18 - 20 July 2018 | \$2100

About the workshop

The full workshop, which consists of two related courses, reviews the physical, chemical and engineering principles used to understand the processing of natural gas and its by-products, the principles and operation of refrigeration systems and liquefaction of natural gas to make LNG. The workshop provides a general overview of gas processing and emphasizes the design and operation of gas and LNG plants with the link day involving refrigeration facilities.

Target participants

The course is suitable for all those with a technical background in engineering or science: it is not just for chemical or process engineers. Many previous attendees from a range of different backgrounds have completed the

course successfully and gained a new perspective on a discipline of tremendous importance to Australia. The instructors adapt the course delivery to suit the nature of each group that takes the course. The sharing of experiences by participants during the course is encouraged and is often a very valuable component of the learning process.

The workshops complement the JM Campbell G4 courses and will greatly assist participants who have taken them or intend to.

Introduction to Natural Gas Processing

The following subjects are covered during the first two days: physical properties, phase equilibria and vapour liquid equilibrium calculations, water hydrocarbon systems, gas transport, acid gas treating/sweetening, dew point control and natural gas liquids recovery. Day 3 is described below.

LNG Production

The third day will concentrate on refrigeration systems, which are commonly used in gas processing and LNG plants, starting with the basic principles and then moving into development of multi-stage refrigeration and mixed refrigerant units.

The final two days will investigate LNG, the basic principles of LNG plants and then examine the primary processes available and discuss some typical operational problems which may arise. The course consists of short lectures focusing on specific topics followed by hands-on simulation examples and problem solving sessions using a process flowsheet simulation program. The "hands-on" computer exercises will be related to each other so that the end result will be process models of gas processing facilities. Emphasis is placed on the understanding of the underlying concepts and principles as well as the associated applications of simulation to solve real problems.

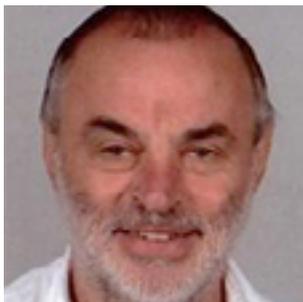
You may elect to attend the whole course, or the first three days, or the latter three days. As refrigeration is an important feature of natural gas and LNG plants, the common day 3 will cover this content.

Continuing Professional Development

Participants who complete this course are eligible for CPD points.



Workshop Instructors



Andrew Vieler BSc, MSc (Chemical Engineering) has been involved in application of thermodynamics to process and pipeline design using both steady-state and dynamic simulation for over thirty years. His work has covered natural gas, oil refining, petrochemicals, oil sands, dairy and food industries and also includes many years of aqueous electrolyte chemistry and its associated processes. He has developed and taught simulation and engineering courses in many countries. He has been involved in testing and development of many process simulation and engineering programs and pioneered the use of personal computers in engineering in Europe during the early 1980's. His specialties include development of large simulation models, development of customised simulation and engineering courses for Petronas in Malaysia, training of users of process simulation tools and application of aqueous electrolyte models in many areas.



Eric May is the Chevron Professor in Gas Process Engineering, at UWA's Centre for Energy. Eric has been conducting research in oil and gas engineering for over a decade, working in the areas of phase behavior, separations, fluid properties and flow assurance. He is also an educator, who has run courses in thermodynamics and process modeling for six years. He was awarded the 2010 Western Australian Young Scientist of the Year.

Workshop Timetable

Introduction to Gas Processing

Days 1 – 3

LNG Production

Days 3 – 5

TIME	PRESENTATION
8.20am	Registration, Welcome and Orientation
8.30am	Session
10.30am	Break
10.45am	Session
12.30pm	Lunch
1.30pm	Session
3.30pm	Break
3.45pm	Session
5.30pm	End

Subjects Covered

Day 1

- Fundamentals of natural gas
- Physical properties
- Phase equilibria
- Gas transport

Day Two

- Gas dehydration
- Acid gas and gas treating
- Hydrocarbon dew point control

Day Three

- Fundamentals of refrigeration
- Refrigeration cycles
- Mixed refrigeration and multi-stage refrigeration

Day Four

- Basic principles and history of LNG
- Cryogenic extraction of LPGs and LNGs
- Overview of LNG processes

Day Five

- Basic LNG plant models
- Operating problems and models
- Summary

Registration

Register online at:

<https://payments.uwa.edu.au/GasProLNGCourse>

Registration Fees

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LNG Production
19 – 20 July 2018 | \$2100

Registration fee includes: GST, registration, morning and afternoon refreshment breaks, lunch, software download, CD and a hard copy of the course material.

Payment Method: Credit Card: MasterCard or Visa ONLY.

Confirmation of Registration will be sent to you via email.

Cancellation policy: refunds will be made only on cancellation due to special circumstances. 50% of the course fee will be refunded only if cancellation notice is given 2 weeks prior to the event.

Location

The workshop will take place at:

The University of Western Australia
Perth Campus
Civil and Mechanical Engineering Building
Computer Room 201
Parking: Fairway, Entrance 4

[Map](#)

Due to student holidays, you can also park at no charge in the yellow parking bays.

Australian Centre for LNG Futures
Email: lngfutures-fems@uwa.edu.au
www.mech.uwa.edu.au/courses/gas-processing-lng-workshop