



OIL AND GAS | OG-034

Natural Gas Processing and Treatment

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Course content

Why Attend

Natural gas must be processed before it can be transported and sold: water, acid gases, heavy hydrocarbons and contaminants must be removed and valuable liquids recovered. Gas processing plants are therefore critical to the gas value chain and to meeting sales specifications.

This Aractech course explains gas composition and specifications, dehydration, acid gas removal, sulphur recovery, dew point control, NGL recovery and fractionation, and compression. Participants learn the principles, equipment and operating challenges of each process and how to optimise plant performance.

Course Methodology

- Technical presentations with process diagrams
- Worked calculations
- Plant case studies
- Troubleshooting exercises
- Group discussions

Course Objectives

- Describe natural gas composition and sales specifications
- Explain gas dehydration methods
- Understand acid gas removal and sulphur recovery
- Explain dew point control and NGL recovery
- Understand fractionation and product handling
- Troubleshoot and optimise gas plant operations

Target Audience

- Process engineers in gas plants

Course content

- Operators and supervisors
- Production and facilities engineers
- Project engineers

Course outline

Detailed course outline

Day-by-day outline for Natural Gas Processing and Treatment.

Day 1 - Natural Gas Fundamentals

- 09:00-09:39 | Gas composition and properties
- 09:39-10:18 | Phase behaviour
- 10:18-10:57 | Gas specifications and contracts
- 10:57-11:00 | Gas processing plant overview
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Gas processing plant overview (continued)
- 12:05-12:43 | Safety considerations
- 12:43-14:00 | Exercise: Phase envelope interpretation

Day 2 - Dehydration

- 09:00-09:39 | Hydrates and their prevention
- 09:39-10:18 | Glycol dehydration
- 10:18-10:57 | Solid desiccant dehydration
- 10:57-11:00 | Operating problems
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Operating problems (continued)
- 12:05-12:43 | Hydrate inhibition
- 12:43-14:00 | Exercise: Glycol unit calculations

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Day 3 - Acid Gas Removal and Sulphur Recovery

- 09:00-09:39 | Amine treating
- 09:39-10:18 | Physical solvents
- 10:18-10:57 | Sulphur recovery units
- 10:57-11:00 | Tail gas treatment
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Tail gas treatment (continued)
- 12:05-12:43 | Operating issues
- 12:43-14:00 | Case study: Amine unit foaming

Day 4 - NGL Recovery and Fractionation

- 09:00-09:39 | Dew point control
- 09:39-10:18 | Refrigeration and turbo-expander processes
- 10:18-10:57 | Fractionation trains
- 10:57-11:00 | Product specifications
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Product specifications (continued)
- 12:05-12:43 | LPG handling
- 12:43-14:00 | Exercise: NGL recovery options

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Day 5 - Compression and Optimisation

- 09:00-09:45 | Compression systems
- 09:45-10:30 | Plant control and monitoring
- 10:30-11:00 | Energy efficiency
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Energy efficiency (continued)
- 11:45-12:30 | Emissions reduction
- 12:30-13:15 | Debottlenecking
- 13:15-14:00 | Capstone: Gas plant optimisation study

Seminar dates

Available seminar dates

Live dates and pricing for Natural Gas Processing and Treatment generated from the course details page.

Date	Location	Format	Fee
2 - 6 November 2026	Rome	Classroom	€3,460
9 - 13 November 2026	Munich	Classroom	€3,225
14 - 18 December 2026	Rome	Classroom	€3,460
21 - 25 December 2026	Kuala Lumpur	Classroom	€1,925
18 - 22 January 2027	Dubai	Classroom	€1,845
15 - 19 February 2027	Barcelona	Classroom	€2,815
15 - 19 March 2027	Cape Town	Classroom	€1,625
19 - 23 April 2027	Frankfurt	Classroom	€1,875
17 - 21 May 2027	Barcelona	Classroom	€2,815
21 - 25 June 2027	Frankfurt	Classroom	€1,875

Seminar dates

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19 - 23 July 2027	Rome	Classroom	€3,460
16 - 20 August 2027	Kuala lumpur	Classroom	€1,925
20 - 24 September 2027	Frankfurt	Classroom	€1,875
18 - 22 October 2027	Rome	Classroom	€3,460
15 - 19 November 2027	Kuala lumpur	Classroom	€1,925
20 - 24 December 2027	Barcelona	Classroom	€2,815
2 - 6 November 2026	Online / Live	Online / Live	€1,815
9 - 13 November 2026	Online / Live	Online / Live	€1,815
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21 - 25 December 2026	Online / Live	Online / Live	€1,815

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15 - 19 March 2027	Online / Live	Online / Live	€1,815
19 - 23 April 2027	Online / Live	Online / Live	€1,815
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