



OIL AND GAS | OG-048

Hydrogen Production, Storage and Applications

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Course content

Why Attend

Hydrogen is attracting major investment as a low-carbon fuel and feedstock for industry, transport and power. Oil and gas companies, refiners, utilities and governments are all developing hydrogen strategies.

This Aractech course explains hydrogen production routes including steam methane reforming with carbon capture and electrolysis, storage and transport options, end uses, safety, economics, regulation and certification. Participants assess hydrogen project opportunities and the conditions needed for success.

Course Methodology

- Technical presentations
- Economic modelling exercises
- Case studies of hydrogen projects
- Safety discussions
- Group workshops

Course Objectives

- Explain the role of hydrogen in the energy transition
- Compare hydrogen production routes
- Understand storage and transport options
- Identify hydrogen applications and markets
- Assess hydrogen safety requirements
- Evaluate project economics and policy support

Target Audience

- Energy and process engineers
- Business development and strategy professionals

Course content

- Refinery and petrochemical staff
- Utility and power professionals

Course outline

Detailed course outline

Day-by-day outline for Hydrogen Production, Storage and Applications.

Day 1 - Hydrogen in the Energy System

- 09:00-09:39 | Properties of hydrogen
- 09:39-10:18 | Current hydrogen markets
- 10:18-10:57 | Decarbonisation role
- 10:57-11:00 | Hydrogen colours and terminology
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Hydrogen colours and terminology (continued)
- 12:05-12:43 | Global strategies
- 12:43-14:00 | Exercise: Hydrogen demand mapping

Day 2 - Production Routes

- 09:00-09:39 | Steam methane reforming and CCS
- 09:39-10:18 | Electrolysis technologies
- 10:18-10:57 | Renewable integration
- 10:57-11:00 | Other pathways
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Other pathways (continued)
- 12:05-12:43 | Carbon intensity
- 12:43-14:00 | Case study: Electrolyser project

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Day 3 - Storage and Transport

- 09:00-09:39 | Compression and liquefaction
- 09:39-10:18 | Pipelines and blending
- 10:18-10:57 | Ammonia and carriers
- 10:57-11:00 | Underground storage
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Underground storage (continued)
- 12:05-12:43 | Infrastructure needs
- 12:43-14:00 | Exercise: Transport options comparison

Day 4 - Applications and Safety

- 09:00-09:39 | Refining and industry
- 09:39-10:18 | Transport and mobility
- 10:18-10:57 | Power and heat
- 10:57-11:00 | Hydrogen safety
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Hydrogen safety (continued)
- 12:05-12:43 | Codes and standards
- 12:43-14:00 | Workshop: Safety risk review

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Day 5 - Economics and Policy

- 09:00-09:45 | Levelised cost of hydrogen
- 09:45-10:30 | Policy support and incentives
- 10:30-11:00 | Certification schemes
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Certification schemes (continued)
- 11:45-12:30 | Offtake agreements
- 12:30-13:15 | Project risks
- 13:15-14:00 | Capstone: Hydrogen project evaluation

Seminar dates

Available seminar dates

Live dates and pricing for Hydrogen Production, Storage and Applications generated from the course details page.

Date	Location	Format	Fee
9 - 13 November 2026	Barcelona	Classroom	€2,815
14 - 18 December 2026	Frankfurt	Classroom	€1,875
18 - 22 January 2027	Istanbul	Classroom	€1,978
15 - 19 February 2027	Cape Town	Classroom	€1,625
15 - 19 March 2027	Barcelona	Classroom	€2,815
19 - 23 April 2027	Paris	Classroom	€3,825
17 - 21 May 2027	Frankfurt	Classroom	€1,875
21 - 25 June 2027	Barcelona	Classroom	€2,815
19 - 23 July 2027	Frankfurt	Classroom	€1,875
16 - 20 August 2027	Istanbul	Classroom	€1,978

Seminar dates

Available seminar dates

Live dates and pricing for Hydrogen Production, Storage and Applications generated from the course details page.

Date	Location	Format	Fee
20 - 24 September 2027	Vienna	Classroom	€3,225
18 - 22 October 2027	Barcelona	Classroom	€2,815
15 - 19 November 2027	Paris	Classroom	€3,825
20 - 24 December 2027	Frankfurt	Classroom	€1,875
9 - 13 November 2026	Online / Live	Online / Live	€1,815
14 - 18 December 2026	Online / Live	Online / Live	€1,815
18 - 22 January 2027	Online / Live	Online / Live	€1,815
15 - 19 February 2027	Online / Live	Online / Live	€1,815
15 - 19 March 2027	Online / Live	Online / Live	€1,815
19 - 23 April 2027	Online / Live	Online / Live	€1,815

Seminar dates

Available seminar dates

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Date	Location	Format	Fee
17 - 21 May 2027	Online / Live	Online / Live	€1,815
21 - 25 June 2027	Online / Live	Online / Live	€1,815
19 - 23 July 2027	Online / Live	Online / Live	€1,815
16 - 20 August 2027	Online / Live	Online / Live	€1,815
20 - 24 September 2027	Online / Live	Online / Live	€1,815
18 - 22 October 2027	Online / Live	Online / Live	€1,815
15 - 19 November 2027	Online / Live	Online / Live	€1,815
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