

FACT SHEET (SELF-GUIDED)

Hydrogen: fundamentals and practical aspects



Who should attend?

This course is designed for students, technicians, designers, freelancers, and engineers interested in the practical aspects of the value chain of hydrogen.

Previous knowledge of this subject is not required to attend the course.

Training Objectives

The main objective of this course is to transfer to participants the necessary knowledge to understand fundamental aspects of the value chain of Hydrogen, a key vector in decarbonization and energy transition.

What to Expect?

Get familiar with the role of hydrogen in the energy transition and understand the different components of its value chain (Production, Distribution, Storage, Usage).

Get a glimpse of challenges and opportunities in the hydrogen industry.

Course Duration

Complete course: 10 hs; to be completed in 7 days.
The Virtual Campus will be open for 1 month (for greater flexibility)

Methodology

Self-guided, No scheduled sessions

Available 24/7, Self-paced

“Learn by doing” concept

Content

Introduction

A key vector in the energy transition. Size of the opportunity. | The chemistry of hydrogen

Production

The colours of hydrogen. | Electrolysis | Current technology | SMR | CCS | Challenges.

Storage and Transportation

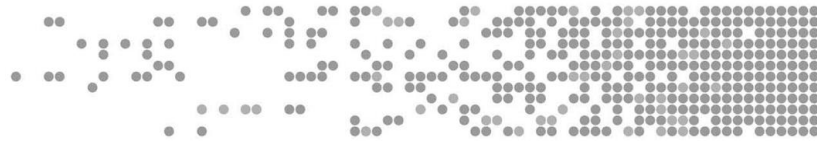
Gas and liquid hydrogen | Organic carriers | Ammonia. | LOHC

Use of hydrogen

Combustion vs. Fuel Cell | Industrial use | Network balance | Land mobility | Vehicles | Refuelling Stations | Sea transport | Aviation

Safety

Development of the hydrogen economy



Instructor

Electronic Engineer specialized in Petroleum Engineering with a Master's in Business Administration (MBA). Over **30 years international experience** in **Business and Project** Leadership and Management in major companies in the **energy industry**.

Broad experience in the development and implementation of innovative projects and process improvements on a global level by using **new technologies**.

Trainer and enthusiastic entrepreneur in matters of **digitalization** applied to education.

Tailored Training

The most effective training is one that satisfies the needs of each company's business focus and deliverables. **We adapt our training programs to each specific requirement, offering bespoke solutions for each need.** The result, 100% tailored programs, developed to maximize the time investment and deliver tangible and intangible returns to the work teams.

After an assessment phase, a tailored training plan is designed jointly with the client. This plan is specifically tailored to meet the client's needs, focusing on effectively enhancing the capabilities of the work team. **We provide practical, dynamic, and hands-on training**, making available the best instructors in each subject.

Arveng Training

Arveng Training has developed effective and practical solutions for today's industrial challenges by delivering specific, high-quality engineering courses utilizing three different approaches: classroom, online, and tailored training. We are proud to have imparted more than 100 classroom courses, 200 online courses, and over 15 in-company sessions. Our training activities have benefitted over 1,500 professionals, our greatest accomplishment of all.

We consider our students' time to be of utmost importance. For this reason, all our courses have been designed with the main objective of quickly improving the professional skills of the participants through our expert instructors in different disciplines. **We stimulate creativity, innovation, and initiative to make the participants inquisitive, bringing good engineering practices and lessons learned to the field, that benefits their professional lives in the long term.**

Our Company

Arveng Training & Engineering SL is a leading company providing Training and Engineering services based in Madrid, Spain. Our mission and vision are to be a leading training and engineering services company, providing our clients with the best in the sector. We are a team of highly motivated, talented, highly qualified professionals with over 20 years of experience. We aim to exceed expectations by offering efficient, innovative, cost-effective, and transparent services.

Established in July 2010, mainly oriented to the industrial sector, from the very beginning Arveng has always worked with closeness, responsibility, and commitment in all areas of activity.

Through experience gained by partaking in multidisciplinary engineering projects in sectors such as Petrochemical, Energy Generation, and Industrial, we provide answers and solutions to concrete requirements, making the effort to build long-lasting and mutually beneficial relationships.