

Petroleum Products

General Objectives

To deepen knowledge of petroleum products characteristics and improve skills in regard to the production process.

Specific Objectives

At the end of training the trainees will be able to:

- Learn about constituents of petroleum products;
- Grasp main characteristics of petroleum and their significance in regard to needs of end-users;
- Learn the basics of metering technologies;
- Identify the recent changes and the trends for the future.

Audience

Engineers, managers and commercial or technical staff whose activities are related to the production, storage, purchasing, marketing or use of petroleum products. Its content also make it suitable for the engineers and managers in the refining industry interested in improving their knowledge of petroleum products.

Prerequisites

The prerequisites necessary to attend this course are:

- Have access to a computer or tablet with an Internet connection and a browser (program to browse the web), such as Chrome, Safari, Firefox or Internet Explorer.
- You can access the course from any computer (for example, at home and at the office), tablet or smartphone.

Workload:

30 Hours

Conteúdo Programático

Module 0 – Presentation of Platform and Method of Use

Module I – Worldwide market – Price and cost management

- ✓ World oil consumption: price variation, demand, production – Which energy for the future?
- ✓ Unleaded gasoline, automotive diesel, heating oil, jet fuel, LPG: worldwide demand, consumption, prices and taxes.

Module II – Origin and composition of petroleum products

- ✓ Composition and main characteristics of crude oils;
- ✓ Classification and characteristics of petroleum products;
- ✓ Principle of oil refining processes and the formulation of commercial products: major properties of blending components, blending rules;
- ✓ Standard quality control tests: standards and testing organizations, test principles, accuracy of the methods, specifications.

Module III – Properties, characteristics and formulation of combustible products

- ✓ For each major product (LPG, automotive gasoline, jet fuel, automotive diesel fuel, domestic fuel oil and heavy fuel oils), the following aspects are developed;
- ✓ Market trends – Volatility characteristics – Combustion properties – Behavior under cold conditions and flowing – Corrosiveness, effect on air pollution – Stability, storage behavior – Manufacturing schemes.

Module IV – Main non-energy products

- ✓ Bitumen;
- ✓ The different types of bitumen: pure, cutbacks, polymer-modified, emulsions;
- ✓ The major standard tests: penetration, softening, ageing;
- ✓ Manufacturing schemes – Formulation – Blending rules;
- ✓ Lube base oils;
- ✓ Lube base oils manufacturing and composition of lubricants: base oils and additives;
- ✓ Properties and characteristics of base oils: viscosity index, cold properties, oxidation stability.

Module V – Additives

- ✓ Nature of the main additives and type of action;
- ✓ Incorporation of additives in the refinery: role in the blending operations, economical aspects;
- ✓ Performance additives injected in the oil depots

Metodologia

Este curso tem sempre presente o formador, que irá mesmo dar a formação presencial através da plataforma.

O Formando pode intervir juntamente com o formador ou com os restantes formandos tal como faz na sala de aula.

As apresentações e exercícios serão sempre disponibilizados pelo formador no final de cada sessão de formação.

No final do curso receberá um Certificado de Formação Profissional caso frequente pelo menos 90% das aulas, realize os trabalhos e os testes propostos, participe nas discussões online e tenha avaliação final positiva.

Esta formação é certificada e reconhecida.