

Commercial Impact of Olefins and Polyolefins Technologies

Workshop Overview

The workshop will begin with a thorough assessment of the global light olefins (ethylene and propylene) business including process technologies, impact of shale gas, key players, demand drivers and regional strength and weaknesses. Following this discussion the polyethylene (LDPE/LLDPE/HDPE) and polypropylene businesses will be examined including advantages/disadvantages of polyolefin process technologies, demand drivers, key producers, and inter-regional trade.

Capping off the workshop will be an analysis of the competitiveness of both olefins and polyolefins including a discussion of cost of production methodologies, definition of terms (variable costs, fixed costs, cash costs), and comparative regional economics. Finally, the economics will be put into context by presentation of global cost curves for both olefins and polyolefins.

Specialty Chemical Industry Workshop

Workshop Overview

With the ongoing transformation of the chemical industry into commodity and specialty oriented enterprises, it is imperative to have a good understanding of key industry fundamentals of the specialty chemical industry. This workshop reviews these fundamentals, starting with the definition and differences of specialties versus commodities and fine chemicals, and how specialty chemicals impact our daily lives. Other topics to be covered include key market players, market segmentation by functionality, application areas and regions, necessity of having a strong service component, and key factors to be successful in the specialty chemicals business. Especially important for industry newcomers is that our instructors will clarify the technical jargon commonly used in the specialty-chemical industry.

Who is it for?

The course is geared for those who want an overview of the key elements and profitability drivers of the specialty chemical industry, including industry newcomers and experienced workers needing a refresher or update. The course will be of interest to both technical and non-technical people including business analysts, purchasing agents, sales & marketing personnel, researchers, process engineers, bankers and finance professionals, HR staff, as well as downstream processors.

Who is it for?

Those new to the polyolefins business, as well as experienced professionals, wishing to expand and update their knowledge and understanding of how the latest “hot topic” issues are driving change along the entire polyolefins value chain — from feedstocks through to the basic olefins and plastics. The workshop is designed to be of interest and value to both technical and commercially oriented participants.

Introduction to the Methanol Business

Workshop Overview

This full-day workshop is taught by IHS Chemical methanol experts who will offer a broad understanding of all major aspects of the global methanol market.

Workshop Contents

Methanol and its Characteristics, Supply-Demand

- What is methanol and which end-use sectors and products consume methanol?

Production

- Feedstocks
- Technology
- Cost and cost curves

“Very knowledgeable, helpful and approachable instructors.”
– Sales Manager

Pricing

- Price determination, Dynamics, Markers
- Forecasting methodology

Supply-Demand

- Global and regional supply-demand

Demand by Key Derivatives

- Formaldehyde, Acetic acid, MMA, Methylamines, Solvents
- DME, Biodiesel, Gasoline blending, MTBE, MTO, MTG

Industry Structure

- Suppliers
- Consumers
- Tradeflows

Case Study

“Very informative course. Well done by instructors. Good insights into industry.” –
Research and Development

Introduction to Monetizing Shale Gas, Natural Gas and Coal in Petrochemicals

Workshop Overview

This interactive workshop will discuss the technology and markets of the burgeoning Shale, Natural Gas and Coal via Syn Gas to chemicals sector. Topics include a review of the main hydrocarbon fractions from Natural Gas and typical main uses for those hydrocarbon fractions as well as the sources and technology of Syn Gas production such as coal. The workshop will cover starting from Natural Gas and Syn Gas the production of olefins, methanol, methanol to olefins, ammonia, fertilizers and PVC.

Who is it for?

The financial community and chemical industry participants throughout the value chain from feedstock supplier, through production to conversion, who are interested in understanding this rapidly developing sector of the petrochemical industry.

Workshop Contents

Introduction

- Shale Gas
- Natural Gas
- Valuation and use of the different NGL components
- Coal

Methane

- Introduction to Syngas
- Syngas to Methanol
- Methanol to Olefins
- Syngas to Ammonia
- Ammonia to Fertilisers: Urea and Ammonium Nitrate

Ethane

- Steam Cracking
- The Vinyls Chain

Propane

- Steam Cracking
- Domestic Fuel
- Trade

Butanes

- Differences between the isomers
- Major End Uses of Butanes

Summary

- Valuation of Typical Gas Composition
- Wrap Up

Other Workshops

IHS offers other workshops and has delivered a wide range of tailored workshops to meet specific client requirements or industry events. Some examples are:

1. Introduction to Petrochemical and Plastics

Workshop Overview

Introduction to Petrochemical and Plastics is a combination of both Petrochemical Industry Fundamentals and Introduction to Thermoplastics workshops offered since 2012 as described earlier.

2. Commercial Impacts of Soda Ash Technologies

Workshop Overview

This IHS interactive workshop will provide a broad understanding of soda ash technologies and their commercial impact on the global soda ash industry. The course will include reviews of technologies, product quality, sources of competitive advantage, and discussion of global and regional technological trends and discontinuities that are impacting trade and profitability. The course will have four main sections: Process Technologies, Competitiveness, Techno Commercial Interactions, Technology Trends and Outlook.

3. Introduction to Thermoplastics

Workshop Overview

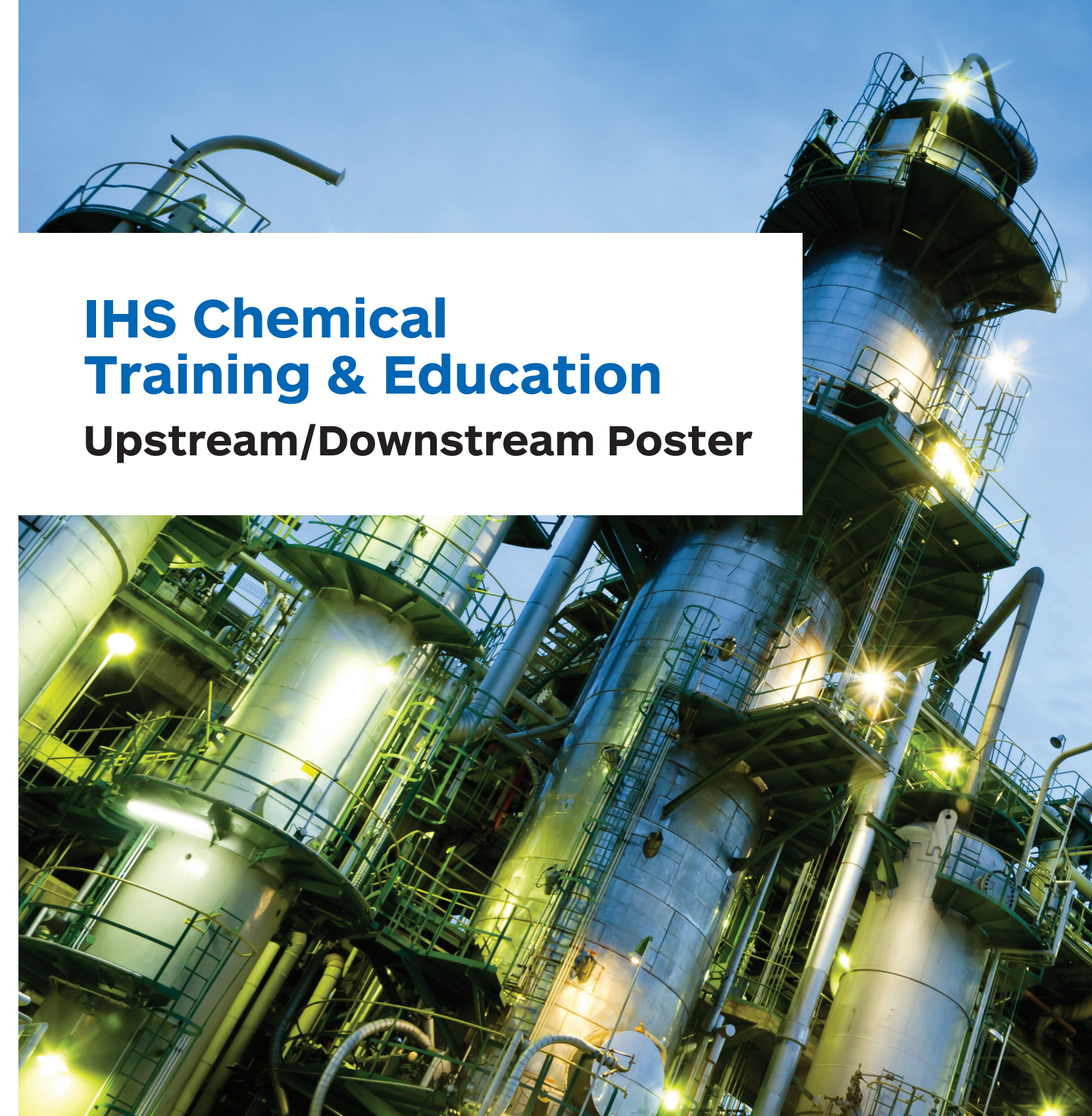
This full-day interactive workshop offers a high level overview of the thermoplastics' markets, covering the historic development of the polymers as well as their chemistry, production processes, end uses, costs, trade patterns and renewables.

4. Understanding Petrochemicals made from Biomass

Workshop Overview

In this full-day IHS interactive workshop, you will learn about the existing biomass based chemical business, how it is developing across the commodity and specialty chemical industries, and how these standard chemical products can be made from biomass. You will also learn about what it takes to be successful in this business, from feedstock procurement to the end-user.

“The workshop was very informative and well presented. Thank you!”
– Senior Analyst



IHS Chemical Training & Education Upstream/Downstream Poster

Learn More and Register:
[ihsonline.com/chem-edu](https://www.ihsonline.com/chem-edu)



Training Courses and Workshops

Maximizing the value of scarce resources is job number one in business. Never has there been so much change and it is imperative to train industry newcomers as well as keep seasoned professionals up-to-date on the impact of the latest industry issues and trends. IHS Chemical Training & Education programs are designed to unlock and maximize the potential of human resources working in the oil & gas, petrochemical, polymers and plastics, and specialty chemical businesses as well as those involved in supporting allied industries.

IHS is the leading information company providing comprehensive content, insight and expertise in key areas shaping today's global landscape. Business and governments around the world use our products, services and solutions to make faster and more confident decisions.

IHS Chemical leverages the combined expertise of seasoned industry consultants from the former CMAI, SRI Consulting (SRIC) and Purvin & Gertz companies. IHS Chemical Training & Education courses and workshops cover the whole value chain, from refined products to petrochemical building blocks through to polymers and plastic processing spanning technology, markets and economics. The courses and workshops are continually evolving, ensuring the hottest topics are covered and workshop attendees are fully informed of the key issues facing the industry.

The courses and workshops are available either at open public events or in-house company training. IHS Chemical Training & Education uses only experienced consultants to provide the teaching. Our highly knowledgeable industry experts provide context to the material through real-world industry examples. Workshops are typically given to a group of 20 – 30 people.

Courses and workshops are designed to be of interest and value to new and experienced professionals from the chemical, energy, refining and renewables industries, or those in adjacent industries such as agriculture, oil and gas, manufacturing, automotive and financial services. Anyone looking to deepen their knowledge and understanding across chemical and energy value chains or those looking to gain strategic viewpoints on end-markets, processes and trends will benefit.

We invite you to browse this training prospectus and consider enrolling in one or more of our training programs. For dates of the various public training sessions visit www.ihs.com/chem-edu. Please keep in mind that in addition to the courses and workshops described in this prospectus, we would be happy to design a course curriculum tailored to your specific interests.

We look forward to seeing you at one of courses or workshops! For additional information please contact me directly or one of our regional training coordinators.

Thank you for your interest and happy training!

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IHS Chemical Training & Education

Learn More and Register:

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Understanding the Global Petrochemical Industry

Course Overview

A 3 day in-depth course by IHS Chemical Training & Education providing critical information and insights on Industry Fundamentals, Changing Feedstock Slates, Process Technology, Market Dynamics, and Profitability Drivers for all members of the chemical industry

Master Petrochemical Industry Fundamentals... Make Better Business Decisions

This 3-day in-depth course provides basic information and insights into the Petrochemical Industry. The course covers industry fundamentals, changing feedstock slates, process technology, marketing dynamics, and profitability drivers.

In addition to covering the basics, the course will discuss how the volatile oil prices are impacting decisions around the world, from shale gas in North America, to coal in China, to ethane imports in Europe.

It is important to understand the basic industry drivers and how they affect your business, so you can make better, more informed business decisions.

CPE credits available. For more information, visit:
ihs.com/chem-edu

“Jeff, great job making a difficult subject simple to understand and interesting!”

– Paul Kanters, Regional Sales Manager, Vopak

Who is it for?

This three-day educational course is designed to be of interest and value to both technical and non-technical industry participants. Attendees represent a wide range of job functions and types of companies.

Job function: Business managers, Process engineers, Financial analysts/accountants, R&D chemists, Licensing managers, Strategic planners, Purchasing agents, Sales and marketing executives, HR and legal managers.

Company types: Petrochemical companies, Oil and gas companies, Plastics Fabricators and Converters, Compounders and formulators, Specialty and performance chemical companies, Biotech start-ups, Industrial gas companies, Technology licensing companies, Commercial and investment banks, Private equity and venture capital firms, Law firms.

“Course is informative and useful, Jeff is a great speaker and can keep things fluid and interesting.”

– Emilio Planas Rego, Marketing Analyst, Braskem

Workshop Contents

Course participants will come away from the course with a deep understanding of how the industry works. Information to be covered will include:

- Industry fundamentals. The industry may be evolving, but the key fundamentals remain the same.
- The impact of shifting feedstock slates. Shale gas and oil, coal, and bio-based feeds are significantly expanding feedstock options around the world.
- Industry jargon, acronyms, and abbreviations explained
- Regional differences. The focus on maximizing regional advantages is reshaping the structure of the global industry.
- The benefits of refinery and petrochemical integration. Participants will learn how existing and new entrants are leveraging this advantage.
- Value chains and their seven basic building blocks.
- Petrochemical process technology and the expanding feedstock options that are driving changes in technology.
- Industry economics, including cost of production methodologies, price-setting mechanisms, and profitability drivers.
- Market dynamics, such as regional capacity and demand breakdowns, trade balances, logistics, and end-use profiles and applications.

“Excellent class! Dr. Jeff has a great understanding of the chemical industry and can explain it in an easy- to- understand way. I will recommend this class to my colleagues.”

– Rick Evans, National Market Manager- Americas, Kuraray America, Inc.

Petrochemical Industry Fundamentals

Workshop Overview

This full-day interactive workshop reviews the key feedstocks of the petrochemical industry right from crude oil through to naphtha to ethylene to polymers. Topics include chemistry, supply, demand and pricing. Value chains covered are aromatics, olefins, polyolefins, vinyls, and syngas with their chemistry and market fundamentals.

Who is it for?

Anyone new to the industry who wants an overview of the key elements of the petrochemical industry, from new graduates to business analysts to lawyers to professionals throughout the petrochemical value chain from feedstock suppliers to downstream processors and converters.

“The instructors are very willing to answer questions and use simply and easy understandable explanations for non-chemical background people to understand petrochemicals” – Director Business Development

Workshop Contents

Introduction and Feedstocks

- Defining Hydrocarbons
- Defining Processes
- Oil
- Natural Gas
- Alternate Chemical Feedstocks
- Electricity
- Salt (NaCl)

“Presenters were brilliant, they were answering questions ensuring that you understand everything” – Technical Sales

Value Chains

- Aromatics (BTX)
- Olefins (Ethylene, Propylene, C4s)
- Chlor Alkali/Vinyls (Chlorine, Caustic, PVC)
- Syngas (Methanol, Ammonia)

Markets

- North America
- South America
- West Europe
- Central Europe & CIS
- The Middle East & Africa
- Northeast Asia
- Southeast Asia
- Indian Subcontinent

“Great foundations for new people in the industry. Very nice, well designed slide deck with up-to-date graphs” – Bond Analyst

Petrochemical Trading Workshop

Workshop Overview

This new full-day workshop gives participants an overview of how petrochemical products are commercially traded, using case studies. The global petrochemical industry dynamics are changing rapidly. The markets are more volatile and the industry is moving towards J.I.T. sales and purchase agreements.

A good understanding of the petrochemical market and how the various elements of feedstock, basic petrochemicals and derivatives interact with each other is essential. This course puts all these elements in perspective and highlights contract structures and the commercial risk involved.

Who is it for?

Course is designed to be of interest and value to technical, manufacturing, sales & marketing and trading industry participants. Attendees represent a wide range of job functions and types of companies.

Job Function: Business managers, technical and plant personnel, financial analysts, strategic planners, traders, purchasing agents, sales and marketing personnel, supply executives and legal managers.

Company Types: Petrochemical companies, oil and gas companies, plastic fabricators and converters, compounders and formulators, specialty and performance chemical companies, technology licensing firms, investment banks, private equity and venture capital firms, law firms, ship owners and brokers.

Workshop Contents

Primer

- Case study: *Tender time!*

Evolution of Trading Hubs – Oil & Petrochemical Trading

- A historical look back
- Differences between Oil and Petrochemical Trading
- When to trade and when to sell?

Trading Optimization along the Value Chain

- Case study: *I smell a trading opportunity!*

Trading for Netback Maximization

- Case study: Who should we sell the spot cargo to?

Profile of Industry Participants

Hedging Strategies in Trading

Trading Risks

- Market – Case study: Sell at fixed or at formula prices?
- Counterparty, Credit
- Operations - Case study: Your vessel is going to miss the laycan!
- Regulatory, Political
- Risk mitigation concepts