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COURSE BROCHURE

Olefins and Chlor-Vinyl Value Chain Margins Training Course

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Kuala Lumpur

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Olefins and Chlor-Vinyl Value Chain Margins is a 1-week training course for petrochemical engineers, planners and commercial staff, and it produces an olefins value chain margin map. Feedstock shifts, new cracker capacity and swings in derivative demand now move profit between ethylene, propylene and PVC chains faster than annual plans assume. Jupiter Prime Training offers this course on olefins and chlor-vinyl value chain margins.

Why Olefins and Chlor-Vinyl Value Chain Margins Matter Now

Three forces reshape olefins economics today. Large new crackers based on ethane and naphtha keep altering supply balances and feedstock advantage. Demand for polyethylene, polypropylene and PVC follows construction, packaging and automotive cycles that rarely move together. Owners and lenders also press integrated sites to show where each tonne earns its margin, from cracker furnace to compounded resin. A producer that reads the chain well routes ethylene and propylene to the most profitable derivative and times chlor-alkali runs sensibly; one that reads it poorly sells co-products cheaply and carries idle capacity.

Who Gains Most from Olefins and Chlor-Vinyl Value Chain Margins

- Process engineers who set cracker severity and yield targets
- Production planners who balance ethylene and propylene between derivative units
- Commercial staff who price polymers, vinyl chloride and caustic soda
- Economics staff who build margin models and feedstock cases
- Supply staff who manage co-product disposal and inter-unit transfers

Integrated petrochemical complexes gain most when engineers, planners and sellers attend together and agree one view of chain margins.

Olefins and Chlor-Vinyl Value Chain Margins Capabilities

Participants follow each molecule from feedstock to finished resin and price every step.

- Compare ethane, propane, butane and naphtha cracking yields — feedstock selection
- Calculate cracker cash margins with co-product credits — severity and run-rate choices
- Weigh ethylene and propylene derivative netbacks — allocation between polymer and chemical units
- Assess the chlor-vinyl balance of chlorine, caustic soda, ethylene dichloride and vinyl chloride monomer — chlor-alkali loading
- Build integrated chain margin models — investment and debottlenecking cases
- Communicate margin shifts to sales and planning — monthly production plans

Key Olefins and Chlor-Vinyl Value Chain Margins Terms

- Steam cracking — heating hydrocarbons with steam in furnaces to break them into ethylene, propylene and other light olefins.
- Cracking severity — how hard a furnace is run, shifting the yield split between ethylene, propylene and heavier products.
- Co-product credit — the value of by-products such as butadiene, pyrolysis gasoline and hydrogen set against cracker cost.
- Netback — the price of a derivative less conversion and logistics costs, traced back to its olefin feed.
- Electrochemical unit — one tonne of chlorine with its matching caustic soda from chlor-alkali electrolysis.
- Ethylene dichloride — the chlorinated intermediate cracked to vinyl chloride monomer, the building block of PVC.

Olefins and Chlor-Vinyl Value Chain Margins Day by Day

Day 1: Feedstocks and the Cracker

- Olefins Industry Structure and Capacity Cycles — Where New Supply Shifts Margins
- Ethane, Liquefied Petroleum Gas and Naphtha Feedstocks — Cost and Yield Trade-Offs
- Furnace Severity and Yield Patterns — Ethylene to Propylene Ratio Choices
- Recovery Section and Product Purity — Polymer Grade Versus Chemical Grade
- Co-Products Butadiene, Pyrolysis Gasoline and Hydrogen — Credits Against Cracker Cost

Day 2: Ethylene and Propylene Derivatives

- Polyethylene Grades and Markets — Linking Resin Demand to Ethylene Offtake
- Ethylene Oxide and Glycols — Chemical Outlets for Surplus Ethylene
- Polypropylene and On-Purpose Propylene — Dehydrogenation and Metathesis Options
- Propylene Oxide, Acrylonitrile and Oxo Alcohols — Alternative Propylene Netbacks
- Derivative Netback Comparison Sheet — Ranking Outlets per Tonne of Olefin

Day 3: The Chlor-Vinyl Chain

- Chlor-Alkali Electrolysis and the Electrochemical Unit — Chlorine and Caustic Balance
- Ethylene Dichloride and Oxychlorination — Using Chlorine and Recycled Hydrogen Chloride
- Vinyl Chloride Monomer Cracking — Conversion Losses and Purification Costs
- PVC Suspension and Paste Grades — Construction and Specialty Demand
- Caustic Soda Markets — When the Co-Product Drives the Chain

Day 4: Margins, Integration and Planning Decisions

- Cracker Cash Margin Calculation — Feed Cost, Energy and Co-Product Credits
- Transfer Pricing Between Integrated Units — Fair Margin Allocation Across the Chain
- Linear Optimisation Planning Models — Monthly Olefin Allocation Decisions
- Debottlenecking and New Derivative Cases — Incremental Margin and Payback
- Margin Sensitivity to Feed and Polymer Prices — Spread Scenarios for Planning

Day 5: Practising the Olefins Value Chain Margin Map

- Feedstock Switch Case Study — Applying Yield and Cash Margin Methods
- Propylene Allocation Exercise — Applying Derivative Netback Ranking
- Chlor-Vinyl Balance Exercise — Matching Chlorine, Caustic and PVC Output
- Integrated Site Scenario Review — Testing Price Spread Sensitivities
- Olefins Value Chain Margin Map — Chain Steps, Margins and Decision Owners

Applying Olefins and Chlor-Vinyl Value Chain Margins After the Course

- Build a derivative netback sheet for current ethylene and propylene outlets and share it with the planning group.
- Review the chlorine and caustic soda balance for the next quarter with chlor-alkali operations and sales.

Olefins and Chlor-Vinyl Value Chain Margins Questions FAQ

What are olefins and chlor-vinyl value chain margins and why do they matter now?

They are the profits earned at each step from cracker feedstock to polymers, glycols and PVC. They matter now because new capacity, feedstock shifts and uneven demand move margin between chains quickly.

Which roles gain most from olefins and chlor-vinyl value chain margins?

Process engineers, production planners, commercial staff and economics staff gain most, as each influences how olefins and chlorine are allocated and priced.

How do olefins and chlor-vinyl value chain margins differ from a general petrochemicals overview course?

The focus is on margin at each conversion step rather than process descriptions alone. Participants calculate cracker margins, derivative netbacks and chlor-vinyl balances instead of surveying the industry broadly.

What do you bring back from olefins and chlor-vinyl value chain margins?

You bring back netback and margin worksheets and a map of where your site earns or loses margin across olefins and vinyls.

Olefins and Chlor-Vinyl Value Chain Margins: The Way Forward

The olefins value chain margin map first informs where the next tonne of ethylene or propylene should go when derivative spreads change. Planners, engineers and commercial staff use it in monthly allocation meetings. After its first use, revisit the feedstock assumptions, since a change in ethane or naphtha cost can reorder every downstream margin.