



Petroleum Refining Economics

Potential PDH: 16

Description:

Upon completion of this course, participants will be able to use fundamental economic thinking and concepts to support business profitability and success. They will:

- Develop a baseline understanding of economic fundamentals
- Connect those fundamentals to petroleum refining and the broader market
- Understand how to connect these concepts with business success

Outline:

1. Introduction: An Economic Overview of a Petroleum Refinery
2. Economic Bases:
 - Crude and Feedstock Pricing
 - Product Pricing
 - Environmental and Regulatory Impacts on Refinery Economics
 - Crude and Product Logistics
 - Economic Risk Management
3. Economic Optimization:
 - Process Units and Their Impact on Economics
 - Product Blending
 - The Overall Refinery Balance
4. Economic Decision-Making:
 - Operations Planning
 - Crude Evaluation
 - Competitive Analysis
 - Refinery Investment Decisions
 - Models and Tools

Subject Matter Expert (SME):

Darren York has 23 years of Supply Chain Optimization and Industrial Engineering experience in the Refining and Chemical industry. Darren's experience includes roles with KBC Advanced Technologies as a Principal Consultant and Global Product Manager for Strategic and Supply Chain Services working with international clients in all regions including the US, Canada,



Mexico, Ecuador, Brazil, Uruguay, Germany, France, Italy, Greece, Russia, EAU, Oman, South Africa, India, Thailand, Malaysia, Philippines, China and Japan. Prior to KBC, Darren held multiple positions, including management roles, at Flint Hills Resources Corpus Christi refinery in business development, economics and planning, production accounting, compliance and performance management. In these roles he has focused on business success and margin capture through applied optimization, project leadership, planning, coaching and technical development of an integrated hydrocarbon supply chain.

Darren has expertise in refinery and petrochemicals planning (operations, annual, long term, and strategic), refinery scheduling, crude evaluation/selection, product blending, logistics, commercials/trading, economics and business analysis, LP modelling (PIMS, RPMS, GRTMPS, Petro and Spiral), Scheduling and Blending modelling, compliance and Foreign Trade Zone (FTZ) management, performance management with KPIs and scorecards, business analytics and data visualization, process mapping, stochastic modelling/simulation, and discrete event simulation.