N620 – Fundamentals of Petroleum Industry Economics

Duration

Three classroom days providing 2.4 CEU (Continuing Education Credits) or 24 PDH (Professional Development Hours)

Summary

This three-day course offers an opportunity for petroleum industry employees and related government, financial, legal and service industries to gain an understanding of the unique economic principles that drive the "oil business" to success in the 21st century. The course begins with a presentation of basic economic theory and develops its application to financing, finding, development, transportation and marketing of energy resources. The impact of these on the success or failure of the firm is then considered. The course uses real life examples and experiences and, wherever possible, case studies which allow all to participate in group discussion and learning. Participants are required to bring a laptop, loaded with Microsoft Excel, to the course.

Who Should Attend

The course is specifically designed for those new to the industry or transitioning from one area of the industry to another. Directors, Government officials and investors as well as new hires and those curious about the oil/gas business space should attend to learn not only the language but also the analysis methods and decision processes as the industry uses its capital to return value to shareholders. The course is very much hands-on with practical case studies and applications.

Participants will learn to

1. Understand the context and methodology utilized by the industry in analysis, evaluation, selection and monitoring of any project or segment of the organization.
2. Know and comprehend the elements, data sources, data value boundaries, terminology, tools and processes used in economic evaluation.
3. Understand the effects of bounding data in consideration of and quantification of risk in project selection.
4. Have an awareness of the key metrics of the industry and develop the ability to use metrics in analysis.
5. Develop an initial proficiency in use of economic project modeling through use of spread-sheet financial modeling of multiple real-world problems with outcomes.
6. Learn how to undertake an analysis and present the results for management review.
7. Understand the unique language of industry economic analysis and discussion.
8. Gain an awareness of the external and internal forces, drivers and accuracy limits of cost, price and reserve forecasting.
9. Learn how to develop an analysis strategy with consideration of physical product markets, hedging, costs, budget constraints, capital markets and corporate goals.
Course Outline

- Basic Economic Concepts in the Petroleum Industry
- Cash Flow and Profit Analysis Techniques
- Performing Basic Economic and Financial Calculations
- World Energy Economics
- Competing Fuel Analysis
- Theory of the Firm in the Petroleum Sector
- Depreciation and Cost Resource Pools
- Company Financing
- Joint Ventures
- Sunk Cost Analysis
- Fixed and Variable Costs
- Principles of Discounting
- Cost of Capital
- Portfolio Management in the Petroleum Industry

Course Agenda

Day One
1. Introduction to oil/gas economics and common usage
2. Economic calculations
3. Models
4. Money calculations
5. Profit indicators and their use
6. Case studies 1-4
7. Basics of upstream industry language and nomenclature

Day Two
1. Case study 5
2. Oil price forecasting
3. Gas price forecasting
4. Oil transportation
5. Capital sources
6. Reserve forecasting

Day Three
1. Cost and capital forecasting
2. Valuation and finance
3. Risk considerations
4. Use of futures - hedging
5. Portfolio management
6. Joint ventures
7. Case study 6
Instructor

Gerald Henderson earned a B. S. and M. S. degree in Petroleum Engineering and has over 30 years’ experience as reservoir engineer, investor, producing property and facility owner, operator and CEO and founder of independent oil and gas companies. He worked extensively in development of producing property appraisal software and analysis methods, technology to apply statistical analysis of exploration and well log data and published extensively in reservoir simulation development. Gerald has also acted as energy advisor to private banking and insurance investment companies.

Course Dates

Please visit the course details webpage for currently scheduled course dates.

Available for In-House Group Delivery

This course is available for In-House Training and the content can be customized to suit the needs of your organization. For more information or to request a proposal, please email inhouserequests@peice.com or call 713-482-3858 (USA), 403-284-1250 (Canada).