

## Truly Global Focus. Truly Global Delivery.

### Certificate in Global Oil & Gas Management

The oil and gas industry impacts organizations, individuals, and societies worldwide. To position your organization for success in this competitive industry, it is crucial to understand the business side of oil and gas management, and effective cross-cultural, cross-border strategies.

- Study the oil and gas business from the perspective of the entire value chain
- Analyze oil and gas management strategies of global organizations
- Discover the unique and critical business issues of today's global energy marketplace
- Gain access to Thunderbird's unique insight and industry expertise
- Develop the professional capabilities and strategies to lead in the oil and gas industry

#### THE OIL & GAS INDUSTRY IS GLOBAL. IS YOUR SKILL SET?

As you embark on an educational journey through the oil and gas value chain, you will learn the skills and techniques needed to position your company as a leader in this dynamic, competitive global landscape.

#### CERTIFICATE DETAILS

Get a world-class global education.  
Anytime, anywhere.

#### TUITION COST (USD)

\$2,900 (USD)

Corporate pricing available for groups of three or more.

#### COURSE CREDIT

3 Continuing Education Units

#### VIEW THE DEMO

Experience this certificate program at:  
[online.thunderbird.edu/oilandgas](http://online.thunderbird.edu/oilandgas)

All participants receive a copy of *The Global Oil & Gas Industry: Management, Strategy & Finance*, written by Thunderbird Professors Andrew Inkpen, Ph.D. and Michael Moffett, Ph.D.

#### CERTIFICATE FACULTY



**Andrew C. Inkpen, Ph.D.,**  
Thunderbird Professor of  
Management

Dr. Inkpen's research focuses on management of multinational firms and organizational learning in the oil and gas industry.



**Michael H. Moffett, Ph.D.,**  
Thunderbird Associate  
Professor of Finance

Dr. Moffett's expertise includes global finance and financial management issues unique to the oil and gas industry.



# Comprehensive curriculum. Quality instruction.

## WHY THUNDERBIRD ONLINE

World-class continuing education from Thunderbird, the world's #1 ranked school in international business. Professional development on your schedule with 100% online content. Access to the highest quality academic experience with no related travel expense.

## CERTIFICATE FACULTY

Thunderbird's faculty are recognized for their innovative teaching methods, global best business practices, ground-breaking research and commentary, and viewpoints on all aspects of international business.






## BROADEN YOUR PROFESSIONAL KNOWLEDGE

Thunderbird's online Certificate in Global Oil & Gas Management is designed for professionals from all levels of the oil and gas industry, including:

- Industry professionals who seek a greater understanding of oil and gas business fundamentals
- Technical professionals making the transition to oil and gas management
- New employees who would benefit from a well-rounded study of the oil and gas industry
- Business students interested in careers in oil and gas management

## Certificate Format

Thunderbird's online Certificate in Global Oil & Gas Management brings the classroom to you. The curriculum was developed by the same faculty who teach in our #1 ranked programs and the Advanced Management Program for Oil & Gas Industry Executives, which has been considered the gold standard in oil & gas education for over 20 years. The program features:

-  Video presentations by Thunderbird faculty and industry leaders
-  Interactive exercises and case studies
-  Learning assessments before and after modules
-  Business exercises to actively engage and reinforce content
-  Downloadable resources and interactive glossary

## ABOUT THUNDERBIRD

Thunderbird is the world's #1 ranked school of international business with nearly 70 years of experience developing leaders with the global mindset, business skills, and social responsibility necessary to create real, sustainable value for organizations, communities, and the world. Learn more: [www.thunderbird.edu](http://www.thunderbird.edu)



## CERTIFICATE CONTENT

Each module runs approximately 120 minutes.

### INTRODUCTION

1. Overview of the Global Oil & Gas Industry
2. Politics & Energy

### UPSTREAM

3. Access, Fiscal Regimes & Exploration
4. Developing Oil & Gas Projects
5. Production of Oil & Gas
6. Natural Gas & LNG
7. Financial Management

### MIDSTREAM

8. The Market for Crude Oil
9. The Transportation of Oil & Gas

### DOWNSTREAM & THE FUTURE

10. Business of Refining
11. Petroleum Products & Petrochemicals
12. The Future of the Global Oil & Gas Industry

### UNPARALLELED INDUSTRY INSIGHT

For more than 20 years, Thunderbird has been the leader in oil and gas industry education. Our world-renowned faculty have extensive academic and professional experience in global oil and gas business strategies. For more information on the Thunderbird Center for Global Energy Studies, please visit: [www.energy.thunderbird.edu](http://www.energy.thunderbird.edu)



A unit of the Arizona State University Knowledge Enterprise



## Syllabus Online Certificate in Global Oil & Gas Management

### Module 1: Overview of the Global Oil & Gas Industry

Today's world cannot function or exist without oil and gas. Explore some of the fundamental concepts and terms associated with the oil and gas industry and learn about some of the core characteristics of the industry. Topics in this module include:

- The scope and reach of the oil and gas industry.
- The supply and demand of oil and gas.
- The oil and gas industry value chain.

### Module 2: Politics & Energy

The oil and gas industry greatly impacts the global economy, and consequently, politics and oil and gas are closely linked. Further understand the relationship between politics and the oil and gas industry. Topics in this module include:

- Political realities concerning the oil and gas industry.
- Stakeholders and their business goals.
- NOCs and their relationship with IOCs
- OPEC (Organization of the Petroleum Exporting Countries).

### Module 3: Access, Fiscal Regimes, & Exploration

Oil and gas companies working in the upstream need to find oil and gas to sustain their business model and continue project development. Understand the process of finding oil and gas and securing the rights to production. Topics in this module include:

- An overview of the lifecycle of an oil and gas project.
- How fiscal regimes and leases support getting access.
- The exploration activities necessary to find commercial quantities of oil and gas.

### Module 4: Developing Oil & Gas Projects

Once access rights have been granted and exploration has discovered a viable field, development can begin. You cannot get oil and gas out of the ground until the project has been developed. Enhance your understanding of development activities in the value chain's upstream. Topics in this module include:

- The phases of oil and gas development.
- Fundamentals of financial analysis.
- The significance of the Final Investment Decision, or (FID).
- Major risks associated with development.

### Module 5: Production of Oil & Gas

When the development of an oil or gas project is completed, the project is put into production. Unlike development, which is focused on meeting time and cost targets, the production of oil and gas can be viewed as the manufacturing side of the upstream. Explore production activities in the value chain's upstream. Topics in this module include:

- Understanding competitive advantages in the production phase.
- Management issues in production.
- Field reinvestment and renewal.
- Operational safety and how it impacts everything in the production of oil & gas.

### Module 6: Natural Gas & LNG

Gas is only valuable if you can effectively get it to market. Define the various forms and uses of natural gas and its role as a source of energy. Topics in this module include:

- Natural gas from source to consumer.
- Natural gas markets and challenges.
- Liquefied Natural Gas (LNG).
- LNG markets and challenges.
- Shale gas and its role.



## Syllabus Online Certificate in Global Oil & Gas Management

### Module 7: Financial Management

Develop your understanding of financial management and analyzing financial data. You will learn the key components of three financial statements, the difference between debt and equity, fundamental financial metrics, types of capital sourcing, creditworthiness, and the difference between revenue and earnings. Topics in this module include:

- Financial management of companies operating in the industry.
- Various sources of capital used in funding enterprises in oil and gas.
- Financial performance measures used by the many different interest groups and stakeholders active in the industry.

### Module 8: The Market for Crude Oil

Understand the ever-changing market and pricing structures of crude oil. Nobody can predict the price of oil, but

understanding the costs associated with it will help you develop a benchmark. Further explore the evolution of crude oil prices and how markets, supply, and demand influence crude oil prices. Topics in this module include:

- Past and current crude oil pricing strategies.
- Selling and buying crude oil in spot and futures markets.
- The role of speculation.
- Factors that influence supply and demand and the impact on price.

### Module 9: Transportation

Learn about the transportation of oil and gas. Identify transportation modes, understand pipeline basics, and the various methods of transport from wells to refineries. Look at transportation from both the production logistics

perspective, and the distribution logistics perspective. Topics in this module include:

- The overall importance of logistics.
- Technical dimensions of transportation associated with geography, safety, security, and the various modes of transportation.
- Political and economic dimensions, including eminent domain, rights of way, and state profits.
- Business dimensions, including asset ownership, contracts, rate schedules, and financing.

### Module 10: Business of Refining

Explore the business of refining. Understand refinery basics, cost management techniques, the difference between independent and integrated refiners and the components of the refining process. Topics in this module include:

- Refining products, processes, and complexity.
- Global refining trends.
- Refinery competitiveness and operational challenges.
- Refinery profitability.
- Comparison of integrated and independent refiners.

### Module 11: Petroleum Products & Petrochemicals

This module is organized in two distinct sections. The first section addresses petroleum products, focusing primarily on transportation fuels. The second offers an overview of the petrochemicals market.

In the first section of the module, you will explore the business of petroleum products with an emphasis on transportation fuels. Topics in this module include:

- Distribution of refined products.
- Fuel prices and the impact of government taxation policies.
- Aviation fuels and airline challenges.

In the second section of the module, you will explore the petrochemicals industry. Topics in this module include:

- Impact of the petrochemical industry on everyday life.
- Competitive characteristics of commodities and specialty chemicals.
- Industry structure and globalization.

### Module 12: The Future of the Global Oil & Gas Industry

The future of the oil and gas industry is very promising. Oil and gas will be key elements in the global energy mix for many years to come. Explore and understand key themes that will drive growth and innovation in the oil and gas industry for the foreseeable future. Topics in this module include:

- How rising demand will propel the industry.
- The impact of shale gas on the industry.
- The evolving role of NOCs.
- The integrated roles of business, government, and public policy in the industry.