

# Advanced Petroleum Administration Certificate

gaining expertise in the areas necessary to support asset management's art and science

## Introduction

The energy sector is adapting its business strategies to the volatile energy market. We need to have excellent management skills in order to produce value in this climate. "Whenever you see a successful business, someone once made a courageous decision," as Peter Drucker famously said.

The audience is introduced to the art and science of asset management in the oil and gas sector via this Course N Carry training session. It emphasises how using analytical models and human judgement may help businesses make better choices. We would concentrate on important insights that underpin important choices in energy-related investment initiatives.

### **This instruction session will emphasise:**

- The changing global energy scene and the main issues that are now being faced.
- The impact of heuristics and cognitive biases
- Methods for decision quality and decision analysis.
- Financial and market intelligence to help in management decision-making.
- Projects using energy: risk and uncertainty
- Managing risk and seizing favourable possibilities are examples of management choices.
- New developments: environmental issues
- Business analytics applied well to management choices.

## Objectives

Businesses are operated by companies, and for them to prosper, they must make judgements about management that provide value. The energy sector has certain qualities. It is technically difficult, very capital-intensive, and has hazy project results. Specialised methods that assist wise business selections have resulted from this.

### **Upon completion of this training programme, you will be able to:**

- Recognise the changing energy industry and the management difficulties it presents.
- Recognise the dynamics of the value drivers and the unpredictable nature of investment.
- Learn from uncertainty models to help with project decision-making.

- Utilise the knowledge while making management and technical decisions.
- Employ business analytics software to assist in making wise decisions.

## Training Methodology

The classes consist of talks, debates, and supervised practical experience. Developing problem solvers and capable decision makers is the goal, not just disseminating knowledge.

## Organizational impacts

**In the energy sector, making wise management decisions is the main problem. This programme teaches students that**

- Boost the organization's capacity for managing and analysing energy-related projects.
- Have the expertise to create superior decision-making procedures.
- Are successful in improving the value chain for petroleum.
- Gain an understanding of the energy industry and the projects' allure.
- Encourage the careful process of making decisions.
- Provide access to further possibilities within the energy sector.

## Personal Impact

The person would be an efficient problem solver with improved management decision-making abilities. These abilities also contribute to raising an individual's worth inside a company. The information and abilities this course impart equips participants with the tools they need to make better informed management decisions and investments in the energy industry. This instruction programme.

- Enhances one's capacity for assessing and analysing energy-related endeavours.
- Improves understanding and proficiency in evaluating opportunities' potential for value development.
- Make the person efficient in improving the workflow and the petroleum value chain.
- Develops people with the ability to handle opportunities and difficulties.
- Boosts a person's worth to the company and helps identify possible value-creating possibilities.

## Who should attend?

The art and science of management decision making are topics covered in this course. Despite their broad background, our conversations have a direct bearing on the difficulties facing the oil and gas sector. Making managerial decisions requires having this kind of expertise.

Managers and decision-makers in the energy industry will find the content in this course valuable. Analysts, engineers, and consultants that assist in decision-making might also benefit from this training.

**A broad spectrum of professions may benefit from this training programme, including:**

- Decision-makers and managers who are active in generating value for the energy industry.
- Commercial employees who want to have the knowledge and abilities to back important choices.
- Decision-makers in finance and investment related to oil and gas.
- Analysts who contribute to the analysis that generates ideas for project choices.
- Scholars and professionals who want to increase their understanding of the industry.

## Course Outline

### Day 1

#### Management decision-making principles

- The participants are first given an introduction to the basics of the oil and natural gas sectors. We go on to talk about the foundations of choices that provide value.
- An overview of the petroleum industry's history
- Recognising choices
- The field of decision analysis
- Knowledge gained from the oil and gas sector.
- Energy-related initiatives and their cost-benefit analyses
- Why is it that managerial decision-making matters?

### Day 2

#### Model-based vs behavioural decision-making

- An essential component of managerial decision-making is human judgement. But judgements aren't always accurate.
- Descriptive judgements and behavioural biases
- Decision models that are normative
- Biases and heuristics in managerial decision making.
- Energy project business economics
- Analysing costs and benefits is a crucial step in accepting or rejecting a proposal.

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- The energy project value chain and sound decision-making insights

## Day 3

### Taking Care of Uncertainty in Petroleum Projects

- Project values are susceptible to many unknown variables. After talking about the prevalent uncertain aspects of energy projects, we go on to talking about risk management and mitigation strategies.
- Probabilistic reserves for oil and gas
- The development of the markets for energy commodities and how they affect businesses.
- Price patterns and information to help with company choices.
- Modelling Uncertainty: Instruments and Strategies for Risk Control
- Techniques for quantifying uncertainty.
- Uncertainty models for wise management choices: they're all flawed.
- Part 1 of the tutorial: creating a valuation model

## Day 4

### Analysing Economic Decisions

- We talk about the instruments that help managers make decisions. We also assist judgements with the power of computers via the use of MS Excel® and its add-ins.
- Risk, uncertainty, and the potential for reward
- The financial economics concept of valuation
- The importance of knowledge and adaptability
- Value metrics and the actual alternatives available to the industry
- Analysing sensitivity in project evaluations
- Analytics for business in the oil and gas sector
- Tutorial (Part 2): Choosing to invest in a field development initiative

## Day 5

### Future trends and analytical instruments

- On the last day of the course, we go over the newest trends and provide analytical tools that help put the ideas into practice.
- Examination of financial flows in oil and gas initiatives
- The energy markets and geopolitics
- Decisions made in the petroleum industry that are practical (using analytics)
- Case study: Using Microsoft Excel to set up an investment decision support model
- Emission markets' function and environmental factors
- Last thoughts: Does "courageous decision-making depend on business success" really