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038: Business Essentials for Utility Engineers: Understanding and Influencing Financial Decision-Making - 6.0 CEUs

CEU: 6.0 **Duration:** 18hours 35minutes **Tuition:** $5,700

Course Banner

Teachers:

- Dr. Anthony Rodriguez (Texas Southern University)

Course Topics:

- Managers & Leaders

Program Locations & Dates:

- Houston, Texas USA: Jun 22-26
- Houston, Texas USA: Oct 5-9

Program Tags:

- Auditing

About Course

The "Business Essentials for Utility Engineers: Understanding and Influencing Financial Decision-Making" course equips engineers and technical professionals in the utility industry with critical financial and business knowledge. It provides an integrated approach to understanding the financial factors that drive utility operations, investments, and overall performance. Participants will gain the tools and language needed to contribute effectively to strategic decisions and to engage in meaningful dialogue with financial stakeholders.

Course Overview

This course is designed to impact business basics central to financial decision-making in the utility industry. It's one of the crucial courses for any regulator and others to overcome financial knowledge deficiencies as it relates to decision-making best practices.

Our goal is to develop knowledge and understanding on how corporate financial management requires the ability to analyze past performance of an organization while also being able to project the future economic consequences of the firm in financial terms.

We will do this through review and discussion of methods and tactics in order to build core competencies that prepare participants to make sound decisions that lower cost, maximize shareholder value and provide efficient delivery of utilities with a minimum

number of interruptions.

Course Objectives

The objective of this course is to enable utility management professionals to focus on operations and investment and the integration of financial principles into those areas. Through presentations, lectures, review of best practices and experiential exercises in the following key areas, the fundamentals of finance will be taught along with the skills needed to analyze and manipulate financial tools:

- Understanding the language and decision processes of the electric utility business
- Knowing key business concepts and the financial basis of decision-making
- Communicating effectively with finance executives about engineering matters
- Helping ensure that your utility's decisions make good business sense and good engineering sense

Learning Outcomes

- Apply business and financial concepts to utility engineering decisions
- Understand and interpret financial statements and key performance indicators
- Engage confidently with financial teams and contribute to investment planning
- Analyze costs, risks, and asset management decisions with financial insights
- Align engineering solutions with organizational financial strategies

Course Outline

- Understanding Utilities
- Accounting
- Economics
- Finance
- Risk
- Financial Ratios
- Ratemaking
- Budgeting
- Asset Management

Why This Course Matters

Michael Chen
Utility Project Manager, Canada
"As an engineer stepping into management, this course gave me the financial fluency I needed to participate confidently in board meetings and budget reviews."

Winnie Mwangi
Distribution Engineer, Kenya
"I learned how to align my engineering proposals with the utility's financial goals. This training should be mandatory for technical leads."

Suraya Lim
Asset Planning Officer, Malaysia
"This course helped me understand how our utility's investment decisions are made. Now I can support financial modeling with engineering data."

Course Content

Module 1: Understanding the Utility Industry
Gain foundational knowledge of how utilities operate, from generation to distribution.

- **Overview of utility operations**
- **Infrastructure and systems**

- **Current challenges in the utility sector**

Module 2: Financial Accounting and Budgeting
Understand core accounting concepts and how budgeting supports strategic planning.

- **Key accounting principles in utilities**
- **Reading and interpreting financial statements**
- **Budgeting techniques and variance analysis**

Module 3: Financial Ratios and Economic Concepts
Analyze and interpret financial health through ratios and economic indicators.

- **Profitability, liquidity, and solvency ratios**
- **Economic principles in utility regulation**
- **Demand elasticity and pricing theory**

Module 4: Risk Management in Utilities
Explore techniques to identify, assess, and mitigate financial and operational risks.

- **Types of risks in utility operations**
- **Risk assessment frameworks**
- **Contingency planning and resilience strategies**

Module 5: Ratemaking and Asset Management
Delve into pricing strategies and long-term asset value optimization.

- **Principles of ratemaking and tariff design**
- **Asset lifecycle management**
- **Investment planning and ROI analysis**

Target Audience

This course is designed for the following officials: Power system analysts and engineers, Generation and transmission planners, ISO/RTO technical staff, System operation supervisors, Regulators, Distribution system planners and operators, Managers, Senior technicians and Others needing a broader understanding of the financial basis of decision-making in today's restructured utility industry.

Certificate of Completion

Participants who successfully complete the Business Essentials for Utility Engineers program will be awarded a Certificate of Completion. This certificate reflects your developed understanding of financial principles essential to effective utility management and regulation. It acknowledges your ability to communicate with finance professionals, integrate engineering and financial goals, and contribute to strategic decision-making in the power and utilities sector.

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