



## Value of Information and Bayes' Rule Fundamentals

### MODULE

#### About the Skill Module

Venn diagrams and probability trees are good ways to explain the foundation probability rules. Bayesian analysis is central to information applications. Machine learning and variants are central to popular artificial intelligence methods, such as natural language processing. Typical investment decisions seldom have much data and rely instead on expert judgments. Bayes' rule calculates revised probabilities based on new information. Becoming comfortable with Bayes' rule calculations requires practice for most people to develop a deep intuition about how the calculations work.



[See example online learning module](#)

## Target Audience

Geologists, engineers, geophysicists, managers, team leaders, economists, and planners.

## You Will Learn

You will learn how to

- Explain causes of correlation between variables and ways to discover from data
- Perform Bayes' Rule calculations for conditional probabilities using the formula or equivalent methods
- Explain marginal, joint, and conditional probabilities and illustrate with Venn diagrams and probability trees
- Explain how Bayes' rule is valuable even with noisy or sometimes corrupt information
- Develop decision trees to value imperfect information (VII)
- Extend a VOI analysis to include a flexibility option and calculate the value of flexibility (VOF)

## Product Details

Categories: Upstream

Disciplines: Energy Business

Levels: Foundation

Product Type: Individual Skill Module

Format: On-Demand

Duration: 5 hours (approx.)

**\$795.00**