



## Probability and Statistics for the Finance Professional

Finance professionals tend to take coursework in technical analysis, fundamental analysis, and portfolio theory. However, the underlying principle in all of these disciplines is a solid understanding of probability and statistics. This class is specifically relevant to the finance community.

### Available Session(s):

No sessions currently available. Email [customerservice@nyif.com](mailto:customerservice@nyif.com) to get the next available date.

### Targeted Audience

Traders, analysts, brokers, insurance professionals, and any other finance professional who desires to be savvier about the numbers underlying the numbers that they deal with each and every day.

### Special Offer

Clients who register for this course will receive a complimentary 6 month subscription to the Financial Times and FT.com. The Financial Times is the world's most respected financial newspaper, providing a broad assessment on finance, business and the industrial sector. Subscriptions will start within 6-8 weeks of the application process and are limited to one per client. For questions about your subscriptions call 800-628-8088 or email [uscirculation@ft.com](mailto:uscirculation@ft.com). US and Canada enrollees only.

### Advance Preparation

No advance preparation required.

**Level:** Basic

**CPE Credits:** 20.0

**Instructional Method:** Group-Live

### Detailed Outline

**Probability, Gambling, and Finance --  
Practical Applications of Probability  
Theory in Finance and Life**

- Descriptive Statistics
- Probability Models
- Conditional Probability
- Compound Events and Compound Probability
- Bayes Theorem - 'Let's make a Deal'

**Expected Value and Expected Return -  
- How do we devise criteria for making  
investment or other financial  
decisions? Do these criteria have any  
bearing on real life?**

- Expected Value
- Expected Return
- Populations and Samples
- Monte Carlo Estimation

**Risk & Return, understanding the  
trade-off. Mathematics of Portfolio  
Theory.**

- Beta
- Delta
- Gamma
- Vega

**Arbitrage: The Pure Convergence of  
Mathematics and Finance.**

- Statistical
- Deterministic
- Practical Discussion: Are there truly any  
arbitrage opportunities left anymore?

**Placing Side Bets: The Mathematics of  
Derivatives I**

- The History of Hedging
- Mathematics of Options
- History of Options

**Placing Side Bets: The Mathematics of  
Derivatives II.**

- 'Advanced' Option mathematics
- Option Pricing Models
- Other Derivative Products
- Other Hedging Vehicles

**More on Probability -- Technical  
Analysis**

- Theoretical basis for all charting
- Understanding charts: How much do  
they really tell us? What they fail to tell  
us.

**Special Topics: to be determined by  
the class.**