
Introduction to Financial Mathematics and Statistics

Overview

The module is designed to introduce the basics of analytics and financial mathematics and its application in corporate banking.

Learning Outcome Statements

- Understand the fundamentals of financial mathematics and its application
- Make use of various mathematical measures in performing day-to-day activities
- Use various statistics in performing key analysis
- Apply acquired knowledge to the related areas

Key Contents

- Basic Statistics in finance
 - Descriptive Statistics
 - First moments of statistics
 - Second moments of statistics
 - Standard Deviation
 - Variance
 - Volatility
 - Measure of Association
 - Regression Analysis
- Basic Financial Measures
 - Interest rates and discount factors
 - Total Return Analysis
 - Internal Rate of Return
 - Net Present Value
 - Price Value of a Basis Point
 - Time Value of Money
 - Future Value of Money
 - Present Value of Money
- Probability
 - Basic Concepts of Probability
 - Binomial Distribution
 - Normal Distribution
 - Concept of Probability of Default