

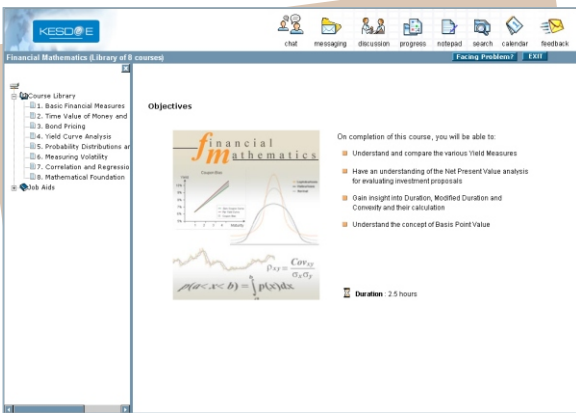
Financial Mathematics

A comprehensive e-learning product dealing with the fundamental concepts in finance such as Time Value of Money, Yield Measures and Bond Pricing.

After completing this course, you will be able to:

- Understand the dynamics of cash flows
- Calculate the various yield measures such as current yield & yield-to-maturity
- Calculate the price of option-free bonds and price/volatility characteristics of bonds with embedded options
- Comprehend volatility and correlation and methods to calculate them





Course Level & Number of Courses

Basic Level
Library of 7 Courses

Instructional Method

Dynamic, Interactive e-learning

Recommended Background

Familiarity with basic financial concepts

Overview

Financial Mathematics is a building block to learners in the field of finance. The topics expose the user to fundamental concepts such as cash flows, present value, future value, yield and probability that form the basis for further advanced learning.

Target Audience

Every professional involved in the global financial services industry (as a provider, user, regulator or advisor of product/services, marketplace/exchange) would benefit from KESDEE's innovative solutions.

- Supervisory Agencies
- Central Banks
- Financial Institutions
- Commercial Banks
- Investment Banks
- Housing Societies/Thriffs
- Mutual Funds
- Brokerage Houses
- Stock Exchanges
- Derivatives Exchanges
- Insurance Companies
- Multinational Corporations
- Accountancy Firms
- Consultancy Firms
- Law Firms
- Rating Agencies
- Multi-lateral Financial Institutions
- Others

The themes of this product are:

- Evaluate cash flows at various points in time
- Gain an insight into basic financial measures such as current yield, yield-to-maturity and total return analysis
- Analyze the mechanics of bond pricing and issues involved therein
- Understand the concepts of volatility and correlation in financial asset prices

Library of 7 Courses

Time taken to complete each Course: Two - Three hours

1. Basic Financial Measures

- Objectives
- Yield Measures
- Total Return Analysis
- Net Present Value
- Duration
- Convexity
- Price Value of a Basis Point

2. Time Value of Money

- Objectives
- Introduction
- Future Value of Money
- Present Value of Money
- Future Value of Annuities
- Present Value of Annuities
- Present Value of Perpetuities
- Amortization

3. Bond Pricing

- Objectives
- Pricing of Option-free Bond
- Pricing of Floater/Inverse Floater
- Price Determination between Coupon Periods
- Yield Analysis
- Price Volatility

4. Yield Curve Analysis

- Objectives
- Introduction to Yield Curve Analysis
- Types of Yield Curves
- Analyzing Yield Curve
- Bond Arbitrage Strategies
- Application of Yield Curves

5. Probability Distributions and their Properties

- Objectives
- Introduction
- Types of Probability Distribution

6. Measuring Volatility

- Objectives
- Review of Concepts
- Normal Distribution
- Introduction to Volatility
- Estimating Volatility

7. Correlation and Regression Analysis

- Objectives
- Introduction to Correlation
- Calculating Correlation
- Regression Analysis

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- Measurement Tools

Calculators in Financial Mathematics

1. Amortization
2. Convexity
3. Basis Point Value
4. Current Yield
5. Duration of Bond
6. Net Present Value
7. Present Value of uneven series
8. Simple Linear Regression
9. Time Value of Money
10. Total Return
11. Yield-to-Call
12. Yield-to-Maturity
13. Price of Option-free Bond
14. Future Value of uneven series
15. Dirty Price and Clean Price
16. Internal Rate of Return
17. Payment Calculator

KESDEE's Off-the-Shelf e-Learning Course Libraries

Product Name	No. of Courses
1. Asset Liability Management	Library of 28 Courses
2. Liquidity Management and Contingency Funding Plan	Library of 14 Courses
3. Financial Institution Analysis - CAMELS Approach	Library of 08 Courses
4. Financial Mathematics	Library of 07 Courses
5. Global Banking Supervision	Library of 15 Courses
6. Capital Adequacy Planning (Basel I)	Library of 07 Courses
7. Basel-II-University	Library of 63 Courses
8. Operational Risk Management – Basel II	Library of 09 Courses
9. Futures and Forwards	Library of 07 Courses
10. Swaps	Library of 07 Courses
11. Options	Library of 10 Courses
12. Market Risk - Basic	Library of 08 Courses
13. Market Risk - Intermediate	Library of 08 Courses
14. Market Risk - Advanced	Library of 04 Courses
15. Value at Risk	Library of 16 Courses
16. Credit Analysis	Library of 13 Courses
17. Credit Ratings	Library of 03 Courses
18. Counter party Credit Risk	Library of 09 Courses
19. Credit Risk Modeling	Library of 06 Courses
20. Credit Derivatives	Library of 23 Courses
21. Operational Risk Management	Library of 21 Courses
22. Asset Securitization	Library of 28 Courses
23. Asset Liability Management for Insurance Companies	Library of 29 Courses
24. Anti-Money Laundering	Library of 06 Courses
25. Financial Privacy	Library of 06 Courses
26. Corporate Governance	Library of 09 Courses
27. Sarbanes-Oxley Act	Library of 12 Courses
28. Governance, Risk and Compliance	Library of 07 Courses
29. Money Markets	Library of 09 Courses
30. Fixed Income Markets	Library of 17 Courses
31. Equity Markets	Library of 10 Courses
32. Foreign Exchange Markets	Library of 09 Courses
33. Commodity and Energy Markets	Library of 03 Courses
34. CTM - Foreign Exchange Management	Library of 07 Courses
35. CTM - Treasury Analytics	Library of 05 Courses
36. CTM - Interest Rate Risk Management	Library of 04 Courses
37. CTM - Funding and Investments	Library of 05 Courses
38. CTM - Implementation	Library of 04 Courses
39. CTM - Case Studies	Library of 05 Courses
40. Understanding Financial Statements	Library of 02 Courses
41. Budgeting	Library of 05 Courses
42. Management Accounting	Library of 07 Courses
43. Financial Accounting	Library of 09 Courses
44. Mutual Funds	Library of 10 Courses
45. Financial Planning	Library of 09 Courses
46. UCP600	Library of 07 Courses
47. International Trade Services	Library of 09 Courses
48. BBM - Deposits	Library of 04 Courses
49. BBM - Advances	Library of 07 Courses
50. BBM - Marketing	Library of 03 Courses

Available Products

KESDEE's Off-the-Shelf e-Learning Course Libraries

Product Name	No. of Courses
51. BBM - Payment and Settlement System	Library of 02 Courses
52. BBM - Foreign Exchange Operations	Library of 03 Courses
53. BBM - Trade Finance	Library of 02 Courses
54. BBM - Book Keeping and accounting	Library of 03 Courses
55. BBM - Ancillary Services	Library of 02 Courses
56. BBM - Risk Management	Library of 03 Courses
57. BBM - Technology and Security	Library of 02 Courses
58. BBM - HRM and CSR	Library of 02 Courses
59. BBM - Retail Banking	Library of 03 Courses
60. Introduction to Bank Lending Environment	Library of 07 Courses
61. Basics of Banking	Library of 10 Courses
62. Flotation	Library of 04 Courses
63. Project Valuation	Library of 03 Courses
64. Trading Operation Controls	Library of 04 Courses
65. Economics	Library of 16 Courses
66. Estate Planning	Library of 04 Courses
67. Global Economic Crisis - Liquidity Management	Library of 07 Courses
68. Brokerage Operations	Library of 01 Course
69. Risk Analysis	Library of 05 Courses

* CTM: Corporate Treasury Management

* BBM: Bank Branch Management

Certification Tutorials

1. ePRM Coach	Library of 68 Courses
2. Associate ePRM Coach	Library of 36 Courses
3. eFRM Coach for FRM Part I Exam	Library of 37 Courses
4. eCoach for the CFA® Level I Program	Library of 76 Courses

Upcoming Products

KESDEE has the required technology platform to respond to clients training requirements in the banking and financial services industry. We offer several solutions, each developed with the guidance of creditable experts. Given below are few of the forthcoming products:

- Agricultural Finance



GFTT

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