STUDY PLAN · 2026

Three-Year Economics & Finance Curriculum

A BSc-style economics and finance programme: from economic principles to accounting, corporate finance, markets and modern finance, using university courses on Coursera and free textbooks.

Year 1	Year 2	Year 3
Foundations	Deepening	Markets and modern finance
426 h	**390 h**	**488 h**

1,304 h of core coursework

6 semesters

91 courses

12 universities

12 reference textbooks

Data collected from coursera.org in November 2026 · Textbook availability checked on the same dates

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1. About the curriculum

This curriculum reproduces, for self-study, the structure of an economics and finance bachelor's degree: three years, five areas and a progression from principles to markets. It is designed for a motivated beginner with end-of-high-school mathematics who can devote about ten hours a week to study.

THE FIVE AREAS

- **Economics.** microeconomics, macroeconomics, managerial economics, globalisation and economic policy.
- **Quantitative tools.** algebra, functions, calculus, statistics, Python.
- **Accounting.** accounting cycle, financial statements, management accounting.
- **Finance.** time value of money, corporate finance, markets, portfolio management, derivatives.
- **Broadening.** strategy, fintech and sustainable finance.

THE PRINCIPLES BEHIND THE ORDER

- **Principles before techniques.** Economic principles (S1) give the framework in which accounting and finance make sense.
- **Quantitative tools early.** Algebra, functions and Python (S1), then calculus (S1, S2, S3) and statistics (S3) prepare for the quantitative finance of year 3.
- **Accounting before corporate finance.** Reading financial statements (S2) comes before valuation and financial management (S4).
- **Markets after the firm.** Portfolio management, applied Python and derivatives (S5) come once finance and probability basics are in place.
- **One project per semester.** Each semester ends with a project, and the curriculum with a dissertation.

LANGUAGES AND TOOLS

Python (S1, S3, S5), Excel or Google Sheets (S2 to S4), Microsoft Excel and Python for financial engineering (S5). No paid software is required.

2. Overview and workload

YEAR	SEM.	CONTENT	HOURS
Year 1 Foundations **426 h**	**S1**	**Economics and quantitative tools** A Story of Economics: A Principles Tale (55 h) Microeconomics Principles (28 h) Algebra: Elementary to Advanced (25 h) Precalculus through Data and Modelling (31 h) Python for Everybody Specialization (79 h)	218 h
	S2	**Accounting and finance basics** Introduction to Finance and Accounting (56 h) Introduction to Financial Accounting: The Accounting Cycle (30 h) Foundational Finance for Strategic Decision Making (50 h) Differential Calculus through Data and Modeling (33 h) Money, Wealth, and Happiness (39 h)	208 h
Year 2 Deepening **390 h**	**S3**	**Managerial economics and statistics** Managerial Economics and Business Analysis (111 h) Statistics with Python (57 h) Integral Calculus through Data and Modeling (25 h)	193 h
	S4	**Accounting and financial management** Fundamentals of Accounting (58 h) Financial Management (111 h) Finance & Quantitative Modeling for Analysts (28 h)	197 h
Year 3 Markets and modern finance **488 h**	**S5**	**Markets and investment** Investment Management (50 h) Investment Management with Python and Machine Learning (74 h) Globalization, Economic Growth and Stability (40 h) Financial Engineering and Risk Management (90 h)	254 h
	S6	**Strategy, fintech and sustainability** Strategy & Economic Analysis (151 h) Financial Technology (Fintech) Innovations (34 h) The Intersection of Finance, Strategy, and Sustainability (49 h)	234 h
Core curriculum total			**1,304 h**
Options (optional)			+ 440 h

COURSE HOURS PER SEMESTER



SUGGESTED PACE

Over 40 study weeks a year, the curriculum takes about **11 h per week in year 1**, **10 h in year 2** and **12 h in year 3**. Lengths are Coursera's estimates; allow an extra 20 to 30% for reading and projects.

YEAR 1 · 426 HOURS

Foundations

Understand how the economy works, master mathematical tools and Python, and lay the foundations of accounting and finance

S1

YEAR 1 · 218 HOURS · ≈ 11 H PER WEEK OVER 20 WEEKS

Economics and quantitative tools

> Understand supply, demand and the main economic aggregates, consolidate algebra and functions, and learn to program in Python.

TARGET SKILLS

- Supply, demand, elasticities and market equilibrium
- Theory of the firm, externalities and public goods
- GDP, inflation, unemployment and economic policy
- Equations, functions, exponentials and logarithms
- Python: variables, loops, functions, files and data

END-OF-SEMESTER PROJECT

A one-page economic outlook on inflation and unemployment in your country, with charts drawn in Python from public data.

THINGS TO WATCH

- Principles of Economics (Rice) and Microeconomics Principles (Illinois) overlap in part: take Rice first, then Illinois to go deeper into microeconomics.
- The Johns Hopkins maths courses use R or a spreadsheet for data: Python is enough to redo the exercises.

PROGRAMME

1

SPECIALIZATION · 3 COURSES · 55 H

A Story of Economics: A Principles Tale

Rice University · Beginner

Stated prerequisites: High school or equivalent education; interest in economics

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Principles of Economics: Introduction - Getting to Know You	Beginner	20 h	4.8 (68)
2	Principles of Economics: Microeconomics - Down to Business	Beginner	13 h	4.9 (39)
3	Principles of Economics: Macroeconomics - The Big Picture	Beginner	22 h	4.8 (75)

2

SPECIALIZATION · 4 COURSES · 28 H

Microeconomics Principles

University of Illinois Urbana-Champaign | Beginner

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Microeconomics Principles	Beginner	9 h	4.8 (3,332)
2	Market Equilibrium, Government Policy & Elasticity	Beginner	6 h	4.9 (42)
3	The Theory of the Firm	Beginner	9 h	4.8 (36)
4	Public Goods, Common Resources, and Externalities	Beginner	4 h	4.9 (52)

3

SPECIALIZATION · 3 COURSES · 25 H

Algebra: Elementary to Advanced

Johns Hopkins University | Beginner

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Algebra: Elementary to Advanced - Equations & Inequalities	Beginner	10 h	4.8 (654)
2	Algebra: Elementary to Advanced - Functions & Applications	Beginner	6 h	4.8 (198)
3	Algebra: Elementary to Advanced - Polynomials and Roots	Beginner	9 h	4.9 (176)

4

SPECIALIZATION · 3 COURSES · 31 H

Precalculus through Data and Modelling

Johns Hopkins University | Beginner | R

Stated prerequisites: Some high school algebra and function basics

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Precalculus: Relations and Functions	Beginner	12 h	4.7 (231)
2	Precalculus: Periodic Functions	Beginner	9 h	4.7 (110)
3	Precalculus: Mathematical Modeling	Beginner	10 h	4.8 (98)

5

SPECIALIZATION · 5 COURSES · 79 H

Python for Everybody Specialization

University of Michigan | Beginner | Python, SQL, SQLite

Stated prerequisites: No prerequisites; designed as an on-ramp to programming

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Programming for Everybody (Getting Started with Python)	Beginner	17 h	4.8 (233,775)
2	Python Data Structures	Beginner	20 h	4.9 (97,365)
3	Using Python to Access Web Data	Beginner	19 h	4.8 (44,591)
4	Using Databases with Python	Beginner	14 h	4.8 (21,659)
5	Capstone: Retrieving, Processing, and Visualizing Data with Python	Beginner	9 h	4.7 (14,483)

FURTHER READING

The Economy 2.0

The CORE Econ team

A modern introduction to economics, built on data and history.

Free online · books.core-econ.org/the-economy/index.html

Principles of Economics 3e

OpenStax

The reference textbook for basic micro- and macroeconomics.

Free (OpenStax) · openstax.org/details/books/principles-economics-3e

Python for Everybody

Charles R. Severance

The Michigan specialization's official textbook.

Free, CC BY 4.0 · www.py4e.com/book

S2

YEAR 1 · 208 HOURS · ≈ 10 H PER WEEK OVER 20 WEEKS

Accounting and finance basics

> Read and build financial statements, master the time value of money and the valuation of stocks and bonds, and manage personal finances.

TARGET SKILLS

- Accounting cycle: journal, ledger, balance sheet and income statement
- Accrual accounting and financial statement analysis
- Time value of money, loans and compound interest
- Valuing stocks and bonds
- Derivatives and optimisation
- Budgeting, saving, credit and personal investing

END-OF-SEMESTER PROJECT

A full analysis of a listed company's annual accounts: ten ratios, their three-year trend and a reasoned recommendation.

THINGS TO WATCH

- Start with Introduction to Finance and Accounting (Wharton): it gives the vocabulary for the other courses.
- Wharton's Fundamentals of Finance course is rated 4.0: supplement it with Principles of Finance (OpenStax).

PROGRAMME

1

SPECIALIZATION · 4 COURSES · 56 H

Introduction to Finance and Accounting

University of Pennsylvania | Beginner | Microsoft Excel

Stated prerequisites: Basic high school-level mathematics

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Fundamentals of Finance	Beginner	12 h	4.0 (1,151)
2	Introduction to Corporate Finance	—	9 h	4.6 (6,478)
3	Introduction to Financial Accounting	—	15 h	4.7 (8,571)
4	More Introduction to Financial Accounting	—	20 h	4.8 (562)

2

SPECIALIZATION · 3 COURSES · 30 H

Introduction to Financial Accounting: The Accounting Cycle

University of California, Irvine | Beginner | Microsoft Excel

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	What is Financial Accounting?	Beginner	9 h	4.7 (558)
2	Recording in Journals & Posting in Ledgers	—	11 h	4.8 (189)
3	Completing the Accounting Cycle	Beginner	10 h	4.6 (156)

3

SPECIALIZATION · 4 COURSES · 50 H

Foundational Finance for Strategic Decision Making

University of Michigan | Beginner | Microsoft Excel

Stated prerequisites: Algebra exposure, comfort with numbers

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Introduction to Time Value of Money (TVM)	Beginner	13 h	4.8 (972)
2	Advanced Concepts in Time Value of Money (TVM)	Intermediate	14 h	4.8 (101)
3	Stocks and Bonds	Beginner	10 h	4.6 (425)
4	Advanced Understanding of Stocks and Bonds	Intermediate	13 h	4.6 (65)

4

SPECIALIZATION · 4 COURSES · 33 H

Differential Calculus through Data and Modeling

Johns Hopkins University | Intermediate | Data Analysis Software

Stated prerequisites: Some familiarity with precalculus, specifically exponential and logarithm functions

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Calculus through Data & Modeling: Precalculus Review	Beginner	8 h	4.8 (124)
2	Calculus through Data & Modeling: Limits & Derivatives	Beginner	10 h	4.7 (212)
3	Calculus through Data & Modeling: Differentiation Rules	Intermediate	8 h	4.8 (124)
4	Calculus through Data & Modeling: Applying Differentiation	Intermediate	7 h	4.7 (63)

5

SPECIALIZATION · 3 COURSES · 39 H

Money, Wealth, and Happiness

University of Illinois Urbana-Champaign | Beginner

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Financial Planning for Young Adults	Beginner	20 h	4.6 (1,427)
2	Investing and Building Wealth	Beginner	13 h	—
3	Money and Happiness	Beginner	6 h	—

FURTHER READING

Principles of Accounting, Volume 1: Financial Accounting

OpenStax

The accounting cycle and financial statements, with exercises.

Free (OpenStax) · openstax.org/details/books/principles-financial-accounting

Principles of Finance

OpenStax

Time value of money, stocks, bonds, risk and corporate finance.

Free (OpenStax) · openstax.org/details/books/principles-finance

Precalculus 2e

OpenStax

Functions, exponentials and logarithms, essential for compound interest.

Free, CC BY 4.0 · openstax.org/details/books/precalculus-2e

YEAR 2 · 390 HOURS

Deepening

Reason as a business economist, master statistics, then management accounting and corporate finance

S3

YEAR 2 · 193 HOURS · ≈ 10 H PER WEEK OVER 20 WEEKS

Managerial economics and statistics

> Analyse the choices of firms and consumers, understand banks and monetary policy, and master inferential statistics.

TARGET SKILLS

- Consumer and producer behaviour, market structures
- Game theory and resource allocation
- Banks, financial institutions and central banks
- Sampling, hypothesis testing and regression
- Statistics in Python
- Integrals and continuous models

END-OF-SEMESTER PROJECT

A simple econometric study: estimate in Python the effect of price and income on the demand for a good, and discuss the model's limits.

THINGS TO WATCH

- Illinois's statistics courses use Excel; Statistics with Python covers the same ground in Python.
- The Illinois specialization is long (111 h): spread it over the whole semester.

PROGRAMME

1

SPECIALIZATION · 6 COURSES · 111 H

Managerial Economics and Business Analysis

University of Illinois Urbana-Champaign | Beginner | Microsoft Excel

Stated prerequisites: Familiarity with economic reasoning and concepts recommended

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Firm Level Economics: Consumer and Producer Behavior	Intermediate	17 h	4.8 (2,563)
2	Firm Level Economics: Markets and Allocations	Intermediate	19 h	4.8 (1,191)
3	Exploring and Producing Data for Business Decision Making	Beginner	23 h	4.8 (1,037)
4	Inferential and Predictive Statistics for Business	Intermediate	19 h	4.8 (880)
5	Banking and Financial Institutions	Intermediate	16 h	4.7 (314)
6	Central Banks and Monetary Policy	Intermediate	17 h	4.7 (127)

2

SPECIALIZATION · 3 COURSES · 57 H

Statistics with Python

University of Michigan | Beginner | Python, Jupyter, Matplotlib, NumPy, pandas, Seaborn, Statsmodels

Stated prerequisites: High school algebra; basic Python recommended

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Understanding and Visualizing Data with Python	Beginner	20 h	4.7 (2,741)
2	Inferential Statistical Analysis with Python	Intermediate	22 h	4.6 (938)
3	Fitting Statistical Models to Data with Python	Intermediate	15 h	4.4 (718)

3

SPECIALIZATION · 4 COURSES · 25 H

Integral Calculus through Data and Modeling

Johns Hopkins University | Intermediate

Stated prerequisites: Working knowledge of differential calculus

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Calculus through Data & Modelling: Series and Integration	Intermediate	9 h	4.9 (63)
2	Calculus through Data & Modelling: Techniques of Integration	Intermediate	5 h	4.7 (55)
3	Calculus through Data & Modelling: Integration Applications	Intermediate	6 h	4.6 (28)
4	Calculus through Data & Modelling: Vector Calculus	Intermediate	5 h	4.7 (53)

FURTHER READING

OpenIntro Statistics

D. Diez, M. Çetinkaya-Rundel, C. Barr

Descriptive statistics, tests and regression.

Free PDF · www.openintro.org/book/os

The Economy 2.0

The CORE Econ team

A modern introduction to economics, built on data and history.

Free online · books.core-econ.org/the-economy/index.html

S4

YEAR 2 · 197 HOURS · ≈ 10 H PER WEEK OVER 20 WEEKS

Accounting and financial management

> Use accounting to make decisions, measure investment performance, value a company and build financial models.

TARGET SKILLS

- Costs, budgets and management control
- Advanced financial accounting
- Investment performance and portfolio management
- Valuation, value creation and financing
- Quantitative models and spreadsheets
- Corporate risk management

END-OF-SEMESTER PROJECT

Valuing a company with discounted cash flows, with a spreadsheet model and a sensitivity analysis.

THINGS TO WATCH

- Two Fundamentals of Accounting courses are rated 3.8: rely on Principles of Accounting, Volume 2.
- Introduction to Corporate Finance (Wharton) appears twice in the curriculum: it is counted once.

PROGRAMME

1

SPECIALIZATION · 4 COURSES · 58 H

Fundamentals of Accounting

University of Illinois Urbana-Champaign | Beginner

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Understanding Financial Statements: Company Position	Beginner	12 h	4.8 (1,404)
2	Understanding Financial Statements: Company Performance	Beginner	12 h	4.7 (797)
3	Accounting for Business Decision Making: Measurement and Operational Decisions	Beginner	18 h	3.8 (190)
4	Accounting for Business Decision Making: Strategy Assessment and Control	Beginner	16 h	3.8 (119)

2

SPECIALIZATION · 6 COURSES · 111 H

Financial Management

University of Illinois Urbana-Champaign | Intermediate | Microsoft Excel

Stated prerequisites: Some related experience required; statistics background recommended

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Financial Accounting: Foundations	Beginner	13 h	4.7 (4,678)
2	Financial Accounting: Advanced Topics	Intermediate	12 h	4.7 (1,774)
3	Investments I: Fundamentals of Performance Evaluation	Intermediate	27 h	4.7 (944)
4	Investments II: Lessons and Applications for Investors	Intermediate	20 h	4.8 (903)
5	Corporate Finance I: Measuring and Promoting Value Creation	Beginner	22 h	4.7 (1,190)
6	Corporate Finance II: Financing Investments and Managing Risk	Beginner	17 h	4.8 (900)

3

SPECIALIZATION · 4 COURSES · 28 H

Finance & Quantitative Modeling for Analysts

University of Pennsylvania | Beginner | Microsoft Excel, Spreadsheet Software

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Fundamentals of Quantitative Modeling	—	10 h	4.6 (9,396)
2	Introduction to Spreadsheets and Models	—	8 h	4.2 (3,893)
3	Financial Acumen for Non-Financial Managers	Beginner	10 h	4.5 (991)
4	Introduction to Corporate Finance	—	9 h	4.6 (6,478)

FURTHER READING

Principles of Accounting, Volume 2: Managerial Accounting

OpenStax

Costs, budgets and performance management.

Free (OpenStax) · openstax.org/details/books/principles-managerial-accounting

Principles of Finance

OpenStax

Time value of money, stocks, bonds, risk and corporate finance.

Free (OpenStax) · openstax.org/details/books/principles-finance

YEAR 3 · 488 HOURS

Markets and modern finance

Understand markets and manage portfolios, program quantitative finance, then strategy, fintech and sustainable finance

S5

YEAR 3 · 254 HOURS · ≈ 13 H PER WEEK OVER 20 WEEKS

Markets and investment

> Understand how financial markets work, build and analyse portfolios in Python, and price derivatives.

TARGET SKILLS

- Financial markets, investor goals and behavioural finance
- Portfolio construction and risk management in Python
- Machine learning applied to asset management
- Globalisation, exchange rates and economic policy
- Derivatives, term structure and optimisation

END-OF-SEMESTER PROJECT

A portfolio built and backtested in Python on twenty years of data, compared with an index, with a one-page management report.

THINGS TO WATCH

- Financial Engineering (Columbia) requires probability and calculus: years 1 and 2 prepare for it.
- The 3rd EDHEC course is rated 3.1: allow extra time for the Python exercises.

PROGRAMME

1

SPECIALIZATION · 5 COURSES · 50 H

Investment Management

University of Geneva | Beginner | Microsoft Excel

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Understanding Financial Markets	Beginner	11 h	4.8 (5,965)
2	Meeting Investors' Goals	—	9 h	4.8 (1,827)
3	Portfolio and Risk Management	Beginner	8 h	4.7 (2,481)
4	Securing Investment Returns in the Long Run	—	8 h	4.8 (1,202)
5	Planning your Client's Wealth over a 5-year Horizon	—	14 h	4.7 (433)

2

SPECIALIZATION · 4 COURSES · 74 H

Investment Management with Python and Machine Learning

EDHEC Business School | Beginner | Python

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Introduction to Portfolio Construction and Analysis with Python	—	25 h	4.8 (1,477)
2	Advanced Portfolio Construction and Analysis with Python	Intermediate	12 h	4.7 (514)
3	Python and Machine Learning for Asset Management	Intermediate	16 h	3.1 (333)
4	Python and Machine-Learning for Asset Management with Alternative Data Sets	Intermediate	21 h	4.4 (238)

3

SPECIALIZATION · 3 COURSES · 40 H

Globalization, Economic Growth and Stability

IE Business School | Intermediate

Stated prerequisites: Some related experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Understanding economic policymaking	—	16 h	—
2	Trade, Immigration and Exchange Rates in a Globalized World	Beginner	13 h	4.8 (305)
3	Business Opportunities and Risks in a Globalized Economy	Intermediate	11 h	4.8 (187)

4

SPECIALIZATION · 5 COURSES · 90 H

Financial Engineering and Risk Management

Columbia University | Intermediate | Microsoft Excel, Python

Stated prerequisites: Undergraduate probability and statistics, linear algebra, calculus; introductory finance helpful

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Introduction to Financial Engineering and Risk Management	Intermediate	20 h	4.7 (335)
2	Term-Structure and Credit Derivatives	Intermediate	14 h	4.6 (69)
3	Optimization Methods in Asset Management	Intermediate	14 h	4.6 (49)
4	Advanced Topics in Derivative Pricing	Intermediate	17 h	4.5 (33)
5	Computational Methods in Pricing and Model Calibration	Intermediate	25 h	4.5 (48)

FURTHER READING

Intermediate Quantitative Economics with Python

T. J. Sargent, J. Stachurski

Economic and financial models programmed in Python.

Free, CC BY-SA 4.0 · python.quantecon.org/intro.html

Introduction to Probability, 2nd ed.

J. K. Blitzstein, J. Hwang

The probability needed for financial engineering.

Free online version · stat110.hsites.harvard.edu

S6

YEAR 3 · 234 HOURS · ≈ 12 H PER WEEK OVER 20 WEEKS

Strategy, fintech and sustainability

> Analyse competition and corporate strategy, understand financial technologies and integrate ESG criteria.

TARGET SKILLS

- Competitive and international strategy
- Managerial economics and game theory
- Payments, blockchain, online lending and AI in finance
- ESG criteria and sustainable finance
- Writing a reasoned dissertation

END-OF-SEMESTER PROJECT

A final dissertation (15 to 20 pages): the strategic and financial analysis of a fintech, or the ESG rating of a sector.

THINGS TO WATCH

- Strategy & Economic Analysis (Illinois Tech) is long (151 h): start it at the beginning of the semester.
- The dissertation brings together the skills of all six semesters: economics, accounting, finance and strategy.

PROGRAMME

1

SPECIALIZATION · 4 COURSES · 151 H

Strategy & Economic Analysis

Illinois Tech · Beginner

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Competitive Strategy	Intermediate	34 h	4.7 (95)
2	Managerial Economics: Buyer and Seller Behavior	Beginner	36 h	4.5 (61)
3	Innovation and International Strategy	Intermediate	40 h	4.8 (51)
4	Business Economics and Game Theory for Decision Making	Intermediate	41 h	4.5 (53)

2

SPECIALIZATION · 4 COURSES · 34 H

Financial Technology (Fintech) Innovations

University of Michigan · Beginner

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	The Future of Payment Technologies	Beginner	7 h	4.7 (1,797)
2	Blockchain and Cryptocurrency Explained	Beginner	9 h	4.7 (980)
3	Raising Capital: Credit Tech, Coin Offerings, and Crowdfunding	Beginner	8 h	4.7 (313)
4	Innovations in Investment Technology: Artificial Intelligence	Beginner	10 h	4.7 (427)

3

SPECIALIZATION · 3 COURSES · 49 H

The Intersection of Finance, Strategy, and Sustainability

Saïd Business School, University of Oxford | Beginner

Stated prerequisites: Basic understanding of financial reporting requirements

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Foundations of Sustainability and ESG	Beginner	16 h	4.7 (104)
2	The Business Case for ESG	Beginner	18 h	4.5 (26)
3	Sustainable Finance: Products, Instruments and Future Trends	Beginner	15 h	4.8 (64)

FURTHER READING

Principles of Management

OpenStax

Strategy, organisation and decision-making alongside competitive analysis.

Free (OpenStax) · openstax.org/details/books/principles-management

Bitcoin and Cryptocurrency Technologies

A. Narayanan, J. Bonneau, E. Felten, A. Miller, S. Goldfeder

The technical foundations of cryptocurrencies.

Free draft (PDF) · bitcoinbook.cs.princeton.edu

6. Options

These specializations are not counted in the total. They suit the end of year 3 or after the curriculum, depending on the chosen direction.

Accounting standards in depth (GAAP and IFRS): assets, liabilities and equity. For a move towards audit or public accounting.

SPECIALIZATION · 4 COURSES · 130 H

Financial Reporting

University of Illinois Urbana-Champaign | Intermediate | Spreadsheet software

Stated prerequisites: Some related experience; basic business and math knowledge

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Accounting Analysis I: The Role of Accounting as an Information System	Intermediate	28 h	4.8 (742)
2	Accounting Analysis I: Measurement and Disclosure of Assets	Intermediate	22 h	4.8 (233)
3	Accounting Analysis II: Measurement and Disclosure of Liabilities	Intermediate	33 h	4.7 (134)
4	Accounting Analysis II: Accounting for Liabilities and Equity	Intermediate	47 h	4.7 (121)

Tableau, Python and machine learning applied to accounting data.

SPECIALIZATION · 3 COURSES · 128 H

Accounting Data Analytics

University of Illinois Urbana-Champaign | Intermediate | Python, Pandas, Scikit-learn, Seaborn, Tableau

Stated prerequisites: Basic Microsoft Excel understanding recommended

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Introduction to Accounting Data Analytics and Visualization	Beginner	21 h	4.8 (458)
2	Accounting Data Analytics with Python	Intermediate	43 h	4.4 (118)
3	Machine Learning for Accounting with Python	Intermediate	64 h	4.6 (46)

Tax, cost and public sector accounting, in preparation for the US CPA exam.

SPECIALIZATION · 3 COURSES · 15 H

CPA Licensure Prep: Special Topics in Accounting

University of California, Santa Barbara | Intermediate

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Economics of Markets, Government, and Nonprofits	Beginner	5 h	—
2	Managerial and Cost Accounting	Intermediate	5 h	—
3	Taxation Concepts	Intermediate	5 h	—

Supervised and reinforcement learning in finance (NYU). Demanding content, rated 3.7.

SPECIALIZATION · 4 COURSES · 72 H

Machine Learning and Reinforcement Learning in Finance

New York University | Intermediate | Python, TensorFlow

Stated prerequisites: Basic math, probability and statistics, Python

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Guided Tour of Machine Learning in Finance	Intermediate	24 h	3.8 (684)
2	Fundamentals of Machine Learning in Finance	Intermediate	18 h	3.7 (345)
3	Reinforcement Learning in Finance	Advanced	17 h	3.6 (134)
4	Overview of Advanced Methods of Reinforcement Learning in Finance	Advanced	13 h	3.8 (86)

The technical foundations of blockchain and cryptography.

SPECIALIZATION · 4 COURSES · 40 H

Blockchain

University of California, Irvine | Beginner

Stated prerequisites: No prior experience required

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	The Blockchain	Beginner	9 h	4.2 (181)
2	Cryptography and Hashing Overview	Beginner	10 h	4.5 (53)
3	The Merkle Tree and Cryptocurrencies	Beginner	9 h	4.8 (26)
4	The Blockchain System	Beginner	12 h	4.3 (42)

AI applied to financial advice and wealth management.

SPECIALIZATION · 3 COURSES · 55 H

Artificial Intelligence in Finance and Wealth Management

University of Illinois Urbana-Champaign | Intermediate | Generative AI

#	COURSE	LEVEL	LENGTH	RATING (REVIEWS)
1	Machine Learning and Human Learning	Beginner	38 h	—
2	Artificial Intelligence in Financial Planning	Beginner	8 h	4.4 (13)
3	Artificial Intelligence in Wealth Management	Beginner	9 h	4.7 (15)

7. Bibliography

All 12 works can be read free online, under the conditions stated.

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3. **Charles R. Severance**. *Python for Everybody*. Free, CC BY 4.0. www.py4e.com/book
4. **OpenStax**. *Principles of Accounting, Volume 1: Financial Accounting*. Free (OpenStax). openstax.org/details/books/principles-financial-accounting
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8. Method and caveats

- **Data source.** Courses, lengths, levels and ratings come from coursera.org pages collected in November 2026, and from the “Economics & Finance Specializations”, “General Science Specializations” and “Data Science Specializations Coursera” files.
- **How hours are counted.** Totals add up the length stated for each course; a course that appears in two specializations is counted once.
- **What the curriculum does not cover.** Coursera offers few university specializations in advanced macroeconomics, econometrics or development economics; the free textbooks fill these areas.
- **Catalogue changes.** Coursera regularly changes its courses, lengths and ratings. Check each page before enrolling.
- **Textbooks.** Free availability was checked on the authors' and publishers' websites; licences differ.