

# FINANCE

Finance is a broad program of study designed to provide a descriptive, behavioral, and analytical background of financial management to enable students to qualify for opportunities in financial services, insurance, brokerage, government, real estate, and financial management of business enterprises. Finance is also an excellent area for those who wish to become more knowledgeable as consumers, particularly in the fields of investments, insurance, and real estate.

Areas of study in the field of finance include corporate financial management, investments, portfolio management, insurance, real estate, banking, and risk management. Upper-level courses include a review of contemporary literature in the field, case studies, and financial problem analysis integrating finance courses previously taken.

## Undergraduate Major in Finance

**For undergraduate curriculum in business, major in finance.**

The Department of Finance offers a major in finance. Students will complete the general education requirements (including business foundation courses), supporting courses/major prerequisites, business core requirements for the bachelor of science (B.S.) degree, and 21 additional credits in the major.

The instructional objective of the Finance program is to provide a well-rounded professional education in finance. Such an education should provide the student with:

1. a mastery of basic financial concepts and methods of analysis
2. an understanding of financial operations in a global setting and of the role of financial institutions in the economy
3. an ability to effectively communicate and work with others as the finance member of a team
4. an ability to demonstrate leadership capabilities in financial analysis and portfolio management.

Students are limited to three business majors/degrees within the Ivy College of Business, or a total of three business majors/minors within the college. This limit is on business majors/degrees/minors only, and does not apply to multiple majors/degrees/minors taken outside the Ivy College of Business.

For more information on the undergraduate major in Finance, please visit: <https://www.ivybusiness.iastate.edu/undergraduate/majors-minors/finance/>

## Undergraduate Minor in Finance

The Department of Finance also offers a finance minor for non-finance majors in the Ivy College of Business. The minor requires 15 credits from an approved list of courses, including at least 6 credits in courses

numbered 300 or above taken at Iowa State University with a grade of C or higher. The minor must include at least 9 credits that are not used to meet any other department, college, or university requirement. Students with declared majors have priority over students with declared minors in courses with space constraints.

Required Course (3 credits):

FIN 301	Principles of Finance	3
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Elective Courses (12 credits):

Select twelve credit hours from 300 or 400 level Finance courses

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For more information on the undergraduate minor in Finance, please visit: <https://www.ivybusiness.iastate.edu/undergraduate/majors-minors/>

**Curriculum:**

In addition to the basic business requirements, finance majors must also complete:

Required Courses (6 credits):

FIN 310	Corporate Finance *	3
FIN 320	Investments	3

Elective Courses (12 credits):

Select four courses from the following (at least two must be 400-level):

FIN 327	Fixed Income Securities	3
FIN 330	Financial Markets and Institutions	3
FIN 361	Personal Risk Management and Insurance	3
FIN 371	Real Estate Principles	3
FIN 415	Business Financing Decisions	3
FIN 424	Financial Futures and Options	3
FIN 425	Security Analysis and Portfolio Management	3
FIN 428	Advanced Fixed Income Analysis and Portfolio Management	3
FIN 431X	Small Business Finance Decisions	3
FIN 435	Venture Capital, Private Equity, and Mergers and Acquisitions	3
FIN 445	Bank Management Decisions	3
FIN 450	Analytical Methods in Finance	3
FIN 455X	Predictive Analytics in Finance	3

FIN 456X	Financial Modeling	3
FIN 462	Corporate Risk Management and Insurance	3
FIN 464	Risk Management Derivatives	3
FIN 472	Real Estate Finance	3
FIN 474	Real Estate Investment	3
FIN 480	International Finance	3
FIN 491X	International Study Course in Global Capital Markets	3

Additional Elective Courses (3 credits):

Select one course from the following:

ACCT 383	Intermediate Managerial Accounting	3
ACCT 386	Intermediate Accounting I	3
ACCT 387	Intermediate Accounting II	3

or any additional 400+ level Finance course.

Total Credits: 21

\* STAT 326 Introduction to Business Statistics II is highly recommended to be taken as a prerequisite.

The X designation after a course number indicates this is an experimental course offered by the Department. Although in an experimental phase, these courses are open for registration just the same as permanent courses listed in the course catalog and count as elective choices in the major.

Finance, B.S.

Sample 4-Year Plan (Your plan may differ)

**Freshman**

Fall	Credits Spring	Credits
BUSAD 102 or 103	1 ECON 102	3
ECON 101	3 STAT 226	3
COM S 113	3 BUSAD 250	3
ENGL 150	3 SP CM 212	3
MATH 151	3 ACCT 284	3
LIB 160	1 BUSAD 203	1
	14	16

**Sophomore**

Fall	Credits Spring	Credits
ACCT 285	3 PHIL 230	3
FIN 301	3 HUM/SOC SCI	3
ENGL 250	3 Global/International Perspective <sup>@</sup>	3
Natural Science	3 Core Business Course	3

MATH 151	3 STAT 326	3
	15	15

**Junior**

Fall	Credits Spring	Credits
ACCT 215	3 FIN 320	3
FIN 310	3 FIN Electives	6
Core Business Courses	6 Core Business Course	3
US Diversity <sup>#</sup>	3 HUM/SOC SCI	3
	15	15

**Senior**

Fall	Credits Spring	Credits
FIN Electives	6 FIN Elective	3
ENGL 302	3 MGMT 478 <sup>*</sup>	3
Core Business Course	3 Global/International Perspective <sup>@</sup>	3
HUM/SOC SCI	3 General Electives	6
General Elective	2	
	17	15

Total Credits: 122

<sup>@</sup> Courses in these requirements may also be used as Global Perspective.

<sup>#</sup> US Diversity courses may be used to satisfy HUM/SOC SCI.

<sup>\*</sup> All core classes must be completed prior to taking MGMT 478 in the graduating semester.

Students must be admitted to the professional program in business to major in finance. The requirements to enter the professional program are:

1. Completion of at least 30 credits, Foundation Courses, ENGL 150, and all ENGL 101/99 courses if required.

2. A minimum GPA of 2.50 either cumulative or in the Foundation Courses. Early admission is allowed for Honors-eligible students. (See your adviser for specific information)

Graduation Requirements:

1. Grade of "C" or higher in at least 30 credits of Core and Major courses.

2. 42 credits of 300+ level courses from a four-year institution.

3. 50% of required Business courses must be earned at ISU.

4. At least 32 credits and the LAST 32 credits must be earned at ISU (exceptions for study abroad and internship may be requested).

5. 122 Credits minimum and a Cumulative GPA of at least 2.00 with no quality point deficiencies.

6. A grade of C or better in ENGL 250 required, and also in one other required ENGL course.

7. All 300-level and higher business credits must be earned at a four-year college.

8. Multiple business **majors** must have at least 15 distinct credits in each of the major requirements; when applicable, one course can be shared between business majors; see your adviser regarding multiple business **degree** requirements.

## Graduate Study

The Finance Department offers a Master of Finance (MFin) degree. The MFin is a non-thesis, non-creative component curriculum designed to provide students with in-depth coverage of finance topics and a strong quantitative skill set. Students will learn financial analysis and valuation, advanced regression techniques and programming approaches for data analysis, time series analysis and forecasting, optimization techniques, modelling of financial and risk variables, simulation techniques, and tools for effective risk management. The 30 credit program requires 18 core credits. Another 12 credits of electives are required, six of which must be in finance courses.

For more information about the MFin program, please visit: <https://www.ivybusiness.iastate.edu/masters/mfin/>

The Finance Department also offers a Master of Real Estate Development (MRED) degree. Jointly created by the College of Design, with significant input and engagement from industry leaders, the MRED is a 30-credit non-thesis, non-creative component program. The MRED program offers academic training, networking opportunities and collaboration with leading academics and practitioners to solve real world problems. Areas of study include real estate market analysis, finance, investments, leadership and negotiation, fundamentals of the build environment, construction science and urban planning. The curriculum is offered in a convenient format of distance learning and brief campus residencies, making it ideal for the full-time working professional.

For more information about the MRED program, please visit: <https://www.ivybusiness.iastate.edu/masters/mred/>

The Department of Finance also participates in the full-time and part-time Master of Business Administration (MBA) program. The MBA is a 48-credit, non-thesis, non-creative component curriculum. Thirty of the 48 credits are core courses and the remaining 18 are graduate electives. Within the MBA program, students may develop an area of specialization in finance.

For more information about the MBA program with a specialization in Finance, please visit: <https://www.ivybusiness.iastate.edu/masters/mba/>

## Graduate Certificate

The graduate certificate in finance provides training in investment valuation and the skills necessary to value an entire company through analysis of expected cash flows based on financial statements, growth characteristics, and risk.

The certificate is for graduate students and recent graduates seeking job opportunities as investors or professional money managers, who deal with efficient asset allocation in a portfolio setting, investment performance measurement, and performance evaluation. The certificate is available on campus in Ames.

For more information about the graduate certificate in Finance, please visit: <https://www.ivybusiness.iastate.edu/masters/graduate-certificates/>

### Courses primarily for undergraduates:

#### FIN 301: Principles of Finance

(3-0) Cr. 3. F.S.SS.

*Prereq: ACCT 284, ECON 101, STAT 226*

Introduction to financial management with emphasis on corporate financing and investment decision making, time value of money, asset valuation, capital budgeting decision methods, cash budgeting, and financial markets.

#### FIN 310: Corporate Finance

(3-0) Cr. 3. F.S.SS.

*Prereq: FIN 301*

Theory used in a firm's investment and financing decisions. Analysis of environment in which financial decisions are made; applications of analytical techniques to financial management problems.

#### FIN 320: Investments

(3-0) Cr. 3. F.S.SS.

*Prereq: FIN 301*

Introduction to securities and markets from the viewpoint of the individual investor. Emphasis on mechanics of trading, measurement of return and risk, behavior of security prices, valuation of stocks and bonds, mutual funds, portfolio selection techniques, and performance evaluation.

**FIN 327: Fixed Income Securities**

(3-0) Cr. 3.

*Prereq: FIN 301*

Valuation of fixed income securities, including pricing conventions, term structure of interest rates, default, duration, and hedging of interest rate risk with derivatives. Analysis of bond market sectors, including treasury, agency, corporate, sovereign, municipal, and residential mortgage bonds.

**FIN 330: Financial Markets and Institutions**

(3-0) Cr. 3. F.S.

*Prereq: FIN 301*

Introduction to the structure and operations of the United States financial system and its markets and institutions. Emphasis on developing an integrated understanding of markets and financial service providers including global linkages.

**FIN 361: Personal Risk Management and Insurance**

(3-0) Cr. 3. F.S.

*Prereq: ECON 101*

Risk concepts and the use of insurance by individuals and families. Emphasis on the insurance mechanism and methods of dealing with income, property, and liability risks.

**FIN 371: Real Estate Principles**

(3-0) Cr. 3. SS.

*Prereq: ECON 101*

Legal, economic, social and financial aspects of real estate, including property rights, contracts, mortgage instruments, tax factors, brokerage, valuation, risk and return analysis, financing techniques, and investments.

**FIN 415: Business Financing Decisions**

(3-0) Cr. 3.

*Prereq: FIN 301*

In depth study of the firm's external financing decision. Emphasis on the development of cash flow statements, projected financing needs and the selection of the appropriate financing instrument. Focus on case studies and application of developed techniques on actual field project.

**FIN 424: Financial Futures and Options**

(3-0) Cr. 3.

*Prereq: FIN 320 and STAT 326*

Advanced study of pricing and using derivatives - instruments deriving value from fundamental items such as commodities, currency exchange rates, market indices, equities and bonds. Addresses basic building blocks of derivatives (i.e., forwards, futures, options and swaps) and relevant current topics and issues.

**FIN 425: Security Analysis and Portfolio Management**

(3-0) Cr. 3. F.S.

*Prereq: FIN 320, STAT 326 and permission of instructor*

Advanced study of security analysis, security selection techniques and portfolio management. Emphasis on the applications of methods learned via the selection and evaluation of a portfolio of actual securities purchased in securities markets in the U.S. or abroad. Tracking and periodic reporting of the portfolio's performance relative to standard benchmarks is also required.

**FIN 428: Advanced Fixed Income Analysis and Portfolio Management**

(Dual-listed with FIN 528). (3-0) Cr. 3.

*Prereq: FIN 327, FIN 320, STAT 326*

Advanced analysis of fixed income markets and securities, including valuation and trading of treasury securities, corporate bonds, mortgage backed securities. Analysis of structured financial securities, including CDO, CMBS, and ABS. Analysis of active and passive investment strategies for managing fixed income portfolios. Students are required to manage a fixed income portfolio for an institutional investor. A top-down approach to portfolio management is assumed, with active bets taken on market direction, duration, yield curve, and credit spreads.

**FIN 435: Venture Capital, Private Equity, and Mergers and Acquisitions**

(3-0) Cr. 3. S.

*Prereq: FIN 310, FIN 320, STAT 326*

An advanced investments class that focuses on alternative investments. Topics include techniques for valuing public and private firms, venture capital finance, investment banking, private equity finance, leveraged buyouts, hedge funds, the structure and financing of mergers and acquisitions, and divestitures.

**FIN 445: Bank Management Decisions**

(3-0) Cr. 3. F.S.

*Prereq: STAT 326; and FIN 330 or ECON 353*

Analysis of operations of depository financial institutions from management viewpoint. Emphasis on evaluating performance, policy formation, asset and liability management, the role of capital, and the operating environment.

**FIN 450: Analytical Methods in Finance**

Cr. 3. F.S.

*Prereq: STAT 326, and ECON 301 or FIN 301*

Applied empirical methods commonly employed in the analysis of firm and market data. Specific applications to financial and agricultural markets. Experiential learning experience using lectures with frequent in-class computer work sessions. Experience with financial and agricultural data sources. Application and interpretation of empirical techniques.

**FIN 462: Corporate Risk Management and Insurance**

(3-0) Cr. 3. F.

*Prereq: FIN 301 and STAT 326*

Analysis of an organization's approaches to the management of price, credit, and pure risk. Emphasis on the consideration and selection of risk control and financing treatments and the decision making framework underlying the alternatives selected. Covers commercial insurance, self-insurance, and alternative financing arrangements.

**FIN 464: Risk Management Derivatives**

(3-0) Cr. 3.

*Prereq: FIN 424*

Advanced models for options and bond pricing. Geometric Brownian motion, risk-neutral pricing, no-arbitrage pricing models, exotic options, pricing options through simulation, and applications of derivatives to hedging market and credit risk exposure. Risk management tools and how they are applied within financial institutions such as banks, insurance companies, mutual funds, and hedge funds, as well as the corporate enterprise. Topics include the Basel accords, volatility modelling, value-at-risk analysis, extreme value theory, credit default swaps, and portfolio simulation.

**FIN 472: Real Estate Finance**

(3-0) Cr. 3.

*Prereq: FIN 301 and STAT 326*

Introduction to the techniques of assessing the value of real estate and real estate financing instruments.

**FIN 474: Real Estate Investment**

(3-0) Cr. 3. F.S.

*Prereq: FIN 301, FIN 371*

Introduction to theories and methods of investment analysis applied to real estate. Studies cash flow analysis, alternative measures of investment performance, the impact of the financing decision on real estate investment risks and return, and various real estate financing techniques. Covers cases involving more complex financing and capital markets tools used in real estate.

**FIN 480: International Finance**

(3-0) Cr. 3. F.S.

*Prereq: FIN 310, FIN 320 or FIN 330*

Advanced study of currency market equilibrium, use and analysis of currency derivatives, hedging currency risk, and additional topics, which could include multinational capital budgeting, taxation, raising capital internationally, international portfolio diversification, international capital market equilibrium, political and country risk, financing international trade, multinational corporate treasury management, and current issues.

**FIN 490: Independent Study**

Cr. 1-3. Repeatable.

*Prereq: FIN 301, STAT 326 and permission of instructor***FIN 499: Finance Internship**

(3-0) Cr. 1-3. F.S.SS.

*Prereq: GPA 2.5; permission of internship coordinator; STAT 326; FIN 499A: FIN 330; FIN 499B: FIN 361; FIN 499C: FIN 301 plus 3 additional credits in finance; FIN 499D: FIN 320; FIN 499E: FIN 310*

Supervised experience in a private sector banking, insurance, real estate, investments or corporate organization or in a governmental agency that regulates such organizations. Offered on a satisfactory-fail basis only.

**FIN 499A: Banking**

(3-0) Cr. 1-3. F.S.SS.

*Prereq: GPA 2.5; permission of internship coordinator; STAT 326.*

Supervised experience in a private sector banking, insurance, real estate, investments or corporate organization or in a governmental agency that regulates such organizations. Offered on a satisfactory-fail basis only.

**FIN 499B: Insurance**

(3-0) Cr. 1-3. F.S.SS.

*Prereq: GPA 2.5; permission of internship coordinator; FIN 361 and STAT 326*

Supervised experience in a private sector insurance organization or in a governmental agency that regulates such organizations. Offered on a satisfactory-fail basis only.

**FIN 499C: Real Estate**

(3-0) Cr. 1-3. F.S.SS.

*Prereq: GPA 2.5; permission of internship coordinator; FIN 301 plus 3 additional credits in finance and STAT 326;*

Supervised experience in a private sector real estate organization or in a governmental agency that regulates such organizations. Offered on a satisfactory-fail basis only.

**FIN 499D: Investments**

(3-0) Cr. 1-3. F.S.SS.

*Prereq: GPA 2.5; permission of internship coordinator; FIN 320 and STAT 326*

Supervised experience in a private sector investment organization or in a governmental agency that regulates such organizations. Offered on a satisfactory-fail basis only.

**FIN 499E: Corporate**

(3-0) Cr. 1-3. F.S.SS.

*Prereq: GPA 2.5; permission of internship coordinator; FIN 310 and STAT 326*

Supervised experience in a private sector corporate organization or in a governmental agency that regulates such organizations. Offered on a satisfactory-fail basis only.

**Courses primarily for graduate students, open to qualified undergraduates:**

**FIN 501: Financial Valuation and Corporate Financial Decisions**

(3-0) Cr. 3.

*Prereq: Enrollment in MBA program or departmental permission.*

Shareholder wealth maximization as the goal of the firm within a social responsibility context, financial Math, valuation of securities, the global financial market place as the test of value, estimation of cost of capital, global capital investment decisions, capital structure policy, working capital management.

**FIN 510: Advanced Corporate Finance**

(3-0) Cr. 3.

*Prereq: FIN 501*

Examines corporate financial decisions, including theory and associated empirical evidence. Topics include agency conflicts, corporate governance, executive compensation, becoming publicly traded, raising capital through public and private offerings, capital structure, financial distress and bankruptcy, leasing, dividend policy, corporate control, restructuring, and risk management.

**FIN 515: Case Studies in Financial Decision Making**

(3-0) Cr. 3.

*Prereq: FIN 501*

This course focuses on case studies to develop an integrated set of financial decisions. Topic areas include fixed asset, working capital, capital structure, dividend and merger/acquisition decisions. The objective of the course is to examine different firm settings and establish a framework within which to apply financial tools.

**FIN 520: Investments**

(3-0) Cr. 3.

*Prereq: FIN 501*

Analysis of risk and return for individual securities and portfolios of securities. Topics include the market environment, mechanics of trading, measurement of return and risk, valuation of stocks and bonds, mutual funds, optimal asset allocation, market efficiency, portfolio performance evaluation, and risk management.

**FIN 528: Advanced Fixed Income Analysis and Portfolio Management**

(Dual-listed with FIN 428). (3-0) Cr. 3.

*Prereq: FIN 327, FIN 320, STAT 326*

Advanced analysis of fixed income markets and securities, including valuation and trading of treasury securities, corporate bonds, mortgage backed securities. Analysis of structured financial securities, including CDO, CMBS, and ABS. Analysis of active and passive investment strategies for managing fixed income portfolios. Students are required to manage a fixed income portfolio for an institutional investor. A top-down approach to portfolio management is assumed, with active bets taken on market direction, duration, yield curve, and credit spreads.

**FIN 530: Financial Analysis and Valuation**

(3-0) Cr. 3.

*Prereq: FIN 501*

Valuation of public and private firms through analysis of financial statements and other information. Study of drivers of value creation, industry analysis, patterns of growth, models for forecasting and analyzing firm cash flows, estimating and adjusting cost of capital, alternative methods of cash flow valuation, the calculation and use of valuation multiples, and valuing mergers and acquisitions.

**FIN 534: Financial Derivatives**

(3-0) Cr. 3. F.

*Prereq: Graduate classification*

An applied course in derivative markets. Topics covered include futures and options markets, option pricing, swaps, use and rating of insurance products, and alternative forms of reinsurance. Emphasis will be placed on agricultural commodity markets, but energy, interest, currency and stock index contracts will also be covered.

**FIN 535: Venture Capital, Private Equity, and Mergers and Acquisitions**

(3-0) Cr. 3.

*Prereq: FIN 501*

Advanced investments class focusing on alternative investments. Topics include the nature and scope of investment banking, techniques for valuing public and private firms, venture capital finance, private equity finance, leveraged buyouts, hedge funds, the structure and financing of mergers and acquisitions, and divestitures.

**FIN 550: Financial Econometrics**

(3-0) Cr. 3.

*Prereq: FIN 501, ECON 571*

Analysis, modeling, and forecasting of time series data, volatility modeling and forecasting, maximum likelihood estimation, robust standard error computation, specification testing, estimation under alternative distributional assumptions, and Monte Carlo simulation. Applications include tests of asset pricing models, analysis of asset volatility, corporate event studies, and value at risk analysis.

**FIN 564: Advanced Derivatives and Risk Management**

(3-0) Cr. 3.

*Prereq: FIN 501, FIN 534*

Risk management tools and how they are applied within financial institutions and the corporate enterprise. Focus on measuring exposure to stock market risk, interest rate risk, currency risk, and credit risk and how these exposures may be managed. Topics include bank risk management regulations, volatility modeling, value at risk analysis, extreme value theory, credit default swaps, and portfolio simulation.

**FIN 572: Real Estate Finance**

(3-0) Cr. 3.

*Prereq: FIN 501 or enrollment in MRED*

Survey of techniques for assessing the value of real estate assets. Introduction to real estate financing instruments, their use and appropriateness.

**FIN 574: Real Estate Investment**

(3-0) Cr. 3.

*Prereq: FIN 501; enrollment in the MRED or instructor permission.*

Introduction to theories and methods of investment analysis applied to real estate. Designed as second course in the sequence of real estate finance and investments. Basics of income-producing properties, the valuations of those properties using pro-forma, risk management and various other issues about the finance and investment of income-producing properties. Study of analysis of sustainable real estate development from capital budgeting perspective. Discussion of the financing practices in real estate and land development.

**FIN 575: Real Estate Securitization and Portfolio Management**

(3-0) Cr. 3.

*Prereq: Enrollment in the MRED or instructor permission.*

Mechanics, incentives and importance of securitization in firms' efforts to raise capital with application to residential and commercial real estate. Design and implementation of portfolio management strategies of private-market real estate investments. Additional topics include devising alpha strategies, approaches to diversification, creating investment plans to achieve different risk profiles and performance measurement and analysis.

**FIN 576: Real Estate Market Analysis**

(3-0) Cr. 3.

*Prereq: Enrollment in the MRED or instructor permission.*

Introduction to the structure of real estate markets. Topics include determinants of supply and demand in space and capital markets, house price dynamics and causes and consequences of market cycles. Discussion of likely behavior of U.S. real estate markets and comparisons with markets in other countries.

**FIN 578: MRED Capstone Project**

(Cross-listed with C R P). (3-0) Cr. 3.

*Prereq: Enrollment in MRED.*

Refinement of students' problem-solving, communication and negotiation skills. Students work on an actual case. Teams will apply knowledge acquired in the classroom to some aspect of a current development on-the-ground and in-process project.

**FIN 590: Special Topics**

Cr. 1-3. Repeatable. F.S.SS.

*Prereq: Permission of instructor*

For students wishing to do individual research in a particular area of finance.