

FINANCE, INSURANCE, AND BUSINESS LAW

Our Website (<http://www.finance.pamplin.vt.edu>)

E-mail: fin@vt.edu

Overview

Finance is a specialty that works with the development, allocation and use of monetary resources within established legal and ethical frameworks, while understanding and mitigating the associated risks. Money is a critical component of the economic system and its flow is the sustaining force of the U.S. and global economy. Therefore, in working with how governments, corporations, intermediaries, and households utilize their financial assets finance professionals are an integral part of how the economy perpetuates the standard of living that we enjoy.

Traditionally there are three separate but related fields within finance:

1. corporate financial management or "business finance" which focuses on the internal decisions of companies to raise funds and invest in corporate assets;
2. investment management which focuses on the purchase and sale of stocks and bonds or their derivatives by individuals and institutions; and
3. financial services management, which focuses on the management and regulation of institutions and the role that financial institutions play in the economy.

The undergraduate program in Finance meets the requirements of students who desire specialized careers in financial management. Students gain expertise in finance, analytics, and accounting that are essential for success as a financial professional. The case-oriented focus of coursework requires students to apply their knowledge and strengthen their oral and written communication skills. The department offers majors in Finance, Financial Planning and Wealth Management, FinTech and Big Data Analytics, and Real Estate Finance. Students in the Finance major select one or more options among Corporate Financial Management, Financial Accounting, Financial Risk Management, or Investment Management and Chartered Financial Analyst (CFA).

The curriculum offers courses in finance, insurance, and business law, but majors only in finance-related fields of study.

Degree Requirements

The graduation requirements in effect during the academic year of admission to Virginia Tech apply. When choosing the degree requirements information, always choose the year you started at Virginia Tech. Requirements for graduation are referred to via university publications as "Checksheets." The number of credit hours required for degree completion varies among curricula. Students must satisfactorily complete all requirements and university obligations for degree completion. The university reserves the right to modify requirements in a degree program.

Please visit the University Registrar's website at <https://www.registrar.vt.edu/graduation-multi-brief/checksheets.html> for degree requirements.

Students declare their major in Finance or one of three specialized finance majors:

- Financial Planning and Wealth Management
- FinTech and Big Data Analytics
- Real Estate Finance (double-major required)

Students who pursue a Finance major select different combinations of elective courses to fulfill the requirements of one or more of the four options offered. The four options are:

- Corporate Financial Management
- Financial Accounting
- Financial Risk Management
- Investment Management and Chartered Financial Analyst (CFA)
- Finance Major with Corporate Financial Management Option (<https://catalog.vt.edu/undergraduate/pamplin-college-business/finance-insurance-business-law/finance-bs-corporate-financial-management/>)
- Finance Major with Financial Accounting Option (<https://catalog.vt.edu/undergraduate/pamplin-college-business/finance-insurance-business-law/finance-bs-financial-accounting/>)
- Finance Major with Financial Risk Management Option (<https://catalog.vt.edu/undergraduate/pamplin-college-business/finance-insurance-business-law/financial-risk-management/>)
- Finance Major with Investment Management and Chartered Financial Analyst Option (<https://catalog.vt.edu/undergraduate/pamplin-college-business/finance-insurance-business-law/finance-bs-investment-management-chartered-financial-analyst/>)
- Financial Planning and Wealth Management Major (<https://catalog.vt.edu/undergraduate/pamplin-college-business/finance-insurance-business-law/financial-planning-wealth-management/>)
- FinTech and Big Data Analytics Major (<https://catalog.vt.edu/undergraduate/pamplin-college-business/finance-insurance-business-law/finance-bs-fintech-big-data-analytics/>)
- Real Estate Finance (<https://catalog.vt.edu/undergraduate/pamplin-college-business/finance-insurance-business-law/real-estate-finance/>)

Head: Dr. Vijay Singal

SunTrust Professor of Finance: G.E. Morgan

J. Gray Ferguson Professor of Finance: V. Singal

Alumni Distinguished Professor and R.B. Pamplin Professor of Finance: A.J. Keown

Pamplin & Oliver Professor of Finance: G.B. Kadlec

R.V. and A.F. Oliver Professor of Investment Management: R. Kumar

Wells Fargo Professor in Financial Risk Management: S. Mansi

Emeritus Professors: J. Hiller, R. Lytton, D. Patterson, J. Pinkerton, D. Shome, and G.R. Thompson

Associate Professors: R.S. Billingsley, J.C. Easterwood, R. Edelen, and J. Xu

Assistant Professors: A. MacKinlay, B. Paye, N. Tran, and P. Ye

Assistant Professors and Russell & Arlene Oliver Junior Faculty Fellows: T. Beason and F. Cabezón

Assistant Professor and Stephen & Karen Jones Junior Faculty Fellow: Y. Tellez

Visiting Assistant Professor: F. Hood

Professors of Practice: M. Kender, D. Klock, and C. Spicer

Associate Professor of Practice: B. Hart and J. Malone

Assistant Professors of Practice: W. Coleman, B. Hart, J. Lineberry, and E. Wikle

Adjunct Professors: D. Andree, E. Johnsen, E. McClanahan, J. Powell, A. Price, T. Reilly, and J. Showalter

Undergraduate Course Descriptions (FIN)

FIN 2114 - Investments and Financial Literacy (3 credits)

Examines budgeting; taxes; long- and short-term borrowing; credit card debt; student loan debt; ethical issues in both lending and investments; insurance; the investment process; the financial markets; investing in common stock, bonds, and mutual funds; major financial decisions, and retirement planning. Coverage of time value of money and risk and return will provide fundamental tools for valuation and financial decision-making.

Pathway Concept Area(s): 5F Quant & Comp Thnk Found., 10 Ethical Reasoning

FIN 2164 - Survey of Finance and Career Planning (1 credit)

Career opportunities and job search strategies in the finance field with reference to the finance courses that best help the student identify a career in his/her selected field. Pass/Fail only.

FIN 2954 - Business Study Abroad (1-19 credits)

This course provides students with an international business experience. It is only offered as part of a program outside of the United States. Students will learn from the structured educational experience developed by the faculty leader. Pre: Instructors consent and the completion of 30 SH with a minimum GPA of 3.0 or departmental consent.

FIN 2974 - Independent Study (1-19 credits)

FIN 2984 - Special Study (1-19 credits)

FIN 3054 - Legal and Ethical Environment of Business (3 credits)

This course examines the legal and ethical environment in which businesses operate. Topics include legal systems, dispute resolution, torts, contracts, agency, employment, business forms, property, ethical theories, decision-making and other selected subjects. Emphasis is placed on problem solving through the application of principles and reasoned analysis. Pre: Sophomore Standing.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

FIN 3074 - Legal, Ethical, and Financing Issues for Entrepreneurs (3 credits)

Introduction of key legal, ethical, and financing topics for new ventures. Ethical decision making in entrepreneurial situations. Choosing among legal entities for financing and ownership goals. Company governance. Creating and protecting intellectual property. Identifying and choosing financing options for new ventures. Employment issues for entrepreneurial firms. Basics of contracts. Enterprise risk management and compliance. Exit strategies. Partially duplicates FIN 3054 (Legal and Ethical Environment of Business). Students may not receive credit for both courses. Sophomore Standing required.

FIN 3104 - Introduction to Finance (3 credits)

Overview of financial decision-making process focusing on the creation of wealth. Topics covered include the time value of money, how stocks and bonds are valued, financial decision-making within a firm, an overview of financial markets, and investment banking. The course is designed for finance and non-finance majors.

Prerequisite(s): (ACIS 2115 and ECON 2005 and BIT 2405) or (ACIS 2115 and ECON 2005 and CMDA 2005) or (ACIS 2115 and ECON 2005 and STAT 3005) or (ACIS 2115 and ECON 2005 and STAT 3604) or (ACIS 2115 and ECON 2005 and STAT 3615 and STAT 3616) or (ACIS 2115 and ECON 2005 and STAT 4604) or (ACIS 2115 and ECON 2005 and STAT 4705 and STAT 4706) or (ACIS 2115 and ECON 2005 and STAT 4714) or (ACIS 2115 and ECON 2025H and BIT 2405) or (ACIS 2115 and ECON 2025H and CMDA 2005) or (ACIS 2115 and ECON 2025H and STAT 3005) or (ACIS 2115 and ECON 2025H and STAT 3604) or (ACIS 2115 and ECON 2025H and STAT 3615 and STAT 3616) or (ACIS 2115 and ECON 2025H and STAT 4604) or (ACIS 2115 and ECON 2025H and STAT 4705 and STAT 4706) or (ACIS 2115 and ECON 2025H and STAT 4714)

FIN 3114 - Python/SQL for Data Analytics and Finance (3 credits)

A foundation in Python/SQL and the tools needed to implement a data-driven approach to financial problem solving. Emphasis on accessing external databases, merging databases, manipulating and transforming data, performing operations, generating an output or another dataset, and exporting in a readable or visual form. To prepare students to analyze datasets for making financial decisions.

Prerequisite(s): FIN 3104

FIN 3124 - Financial Planning for Professionals (3 credits)

Analysis of financial needs, from the context of the individual, household or small business owner, related to financial situation (cash management and use of debt), income taxes, risk management, retirement planning, investment planning, estate planning, and other special needs. Utilizes mathematical and computing skills. FIN students may be excused from the AAEC 2104 prerequisite with instructor permission. FIN 3134 may be taken prior to or concurrent with course. Sophomore Standing required.

Corequisite(s): FIN 3134

FIN 3134 - Financial Analytics (3 credits)

This course provides an understanding of the theory and practice of making financial decisions for corporations. Key concepts and computational skills in finance. Time value of money, risk and return, security valuation and interest rate determination. Sophomore Standing required.

Prerequisite(s): (ACIS 2115 and ECON 2005 and BIT 2405) or (ACIS 2115 and ECON 2005 and CMDA 2005) or (ACIS 2115 and ECON 2005 and STAT 3005) or (ACIS 2115 and ECON 2005 and STAT 3604) or (ACIS 2115 and ECON 2005 and STAT 3615 and STAT 3616) or (ACIS 2115 and ECON 2005 and STAT 4604) or (ACIS 2115 and ECON 2005 and STAT 4705 and STAT 4706) or (ACIS 2115 and ECON 2005 and STAT 4714) or (ACIS 2115 and ECON 2025H and BIT 2405) or (ACIS 2115 and ECON 2025H and CMDA 2005) or (ACIS 2115 and ECON 2025H and STAT 3005) or (ACIS 2115 and ECON 2025H and STAT 3604) or (ACIS 2115 and ECON 2025H and STAT 3615 and STAT 3616) or (ACIS 2115 and ECON 2025H and STAT 4604) or (ACIS 2115 and ECON 2025H and STAT 4705 and STAT 4706) or (ACIS 2115 and ECON 2025H and STAT 4714)

FIN 3144 - Investments: Debt, Equity and Derivatives (3 credits)

Risk, return and portfolio theory, knowledge of financial securities and markets. Introduction to mutual funds, financial securities and markets, portfolio analysis, market efficiency and performance evaluation, bond valuation, term structure of interest rates, interest rate risk, security analysis and stock valuation, options, Black-Scholes option pricing model, and futures. Must have a grade of C or better in prerequisite of FIN 3134. Sophomore Standing required.

Prerequisite(s): FIN 3134

FIN 3154 - Corporate Finance (3 credits)

Types of financial management decisions that firms make, the environment in which decisions are made, the available choices and decision criteria, and valuation consequences of these choices. Determination of a firm's optimal debt-equity ratio, estimation of cost of capital, evaluation of capital investments, dividend policy, and sources of financing. Must have a grade of C or better in prerequisite of FIN 3134. Sophomore Standing required.

Prerequisite(s): FIN 3134

FIN 3174 - Finance Career Strategies (1 credit)

Analysis and research of career opportunities in financial industry. Study of future trends in careers in financial industry. Development of short and long-term career goals. Building and developing a professional network. Identify types of finance interviews. Ethical negotiation of job offers.

FIN 3204 - Risk and Insurance (3 credits)

Surveys the concept of risk as it applies to the nuclear family and as a socio-economic force in society. Risk management techniques utilizing social and proprietary insurance to neutralize the effect of risks inherent in daily life: termination or suspension of earnings, liability exposures, and potential losses of real and personal property values. Sophomore Standing required.

FIN 3254 - Credit Risk Analysis (3 credits)

Analysis of the risks inherent in credit/lending decisions. Pricing of loans, appropriate documentation, and monitoring of the creditworthiness of businesses and individuals. Emphasis on making credit decisions and structuring of credit agreements.

Prerequisite(s): FIN 3134

FIN 3954 - Study Abroad (1-19 credits)**FIN 3984 - Special Study (1-19 credits)****FIN 4004 - Wills, Trusts, and Estates (3 credits)**

Examines the control of assets through the creation and use of trusts, and the control of property through estate planning. The course emphasizes financial planning through estate management both personally and as a part of a business plan.

Prerequisite(s): FIN 3054 or FIN 3074

FIN 4014 - Cyberlaw and Policy (3 credits)

Cyber law, ethics, and policy in a changing world. National and international methods of regulation and protection of fundamental rights. Legal, ethical, and policy issues for Internet governance, speech, privacy, cybersecurity, surveillance, electronic commerce, intellectual property, and cyberwar. Examination of current issues and texts in light of fundamental ethical and legal principles and global discourse. Pre: Junior standing.

Pathway Concept Area(s): 3 Reasoning in Social Sciences, 10 Ethical Reasoning

FIN 4104 - Retirement Planning (3 credits)

Overview of planning needs, products, and strategies used by financial professionals to help businesses, small business owners, and individuals choose and implement an effective retirement plan. Must have prerequisite or permission of instructor.

Prerequisite(s): (FIN 3124 and ACIS 4344) or (FIN 3134 and ACIS 3314)

FIN 4114 - Financial Planning Technology and Modeling (3 credits)

Use of professional software applications that support financial planning analyses, plan preparation, wealth management, and client relationships. Principles of personal investment portfolio research, construction, and performance applied to comprehensive financial planning and wealth management.

Prerequisite(s): FIN 3124 and FIN 3144

FIN 4124 - Client Relationship Management (3 credits)

Investigation of socio-psychological factors and communication/interviewing strategies that foster trust-based relationships essential to the success of financial advisors and other financial service professionals. Graduate students are expected to have completed AAEC 3104 or FIN 3124 or an equivalent course or may enroll with permission of the instructor.

Prerequisite(s): FIN 3124

FIN 4134 - Financial Planning Applications (3 credits)

Integration of financial planning content in the resolution of client situations in the context of ethical and compliant workplace practices. Utilizes a case analysis approach applying financial planning processes and procedures. Graduate students are expected to have similar background from equivalent courses or professional experience or may enroll by permission of the instructor. ACIS 4344 or FIN 4004 taken simultaneously with the course can be substituted for the prerequisites.

Prerequisite(s): FIN 3124 and FIN 3144 and FIN 3204 and ACIS 4344

Corequisite(s): FIN 4104, FIN 4114, FIN 4004

FIN 4144 - International Financial Management (3 credits)

Explores the environmental challenges facing the financial manager of a multinational corporation and the tools and techniques developed to meet such challenges.

Prerequisite(s): FIN 3104 or FIN 3134

FIN 4154 - Real Estate Finance (3 credits)

This course introduces the fundamentals of both real estate financing and investment. Conventional mortgages as well as more creative financing methods will be analyzed. The secondary market for mortgages and relevant institutional factors also will be examined. Investment analysis of real estate will be viewed in a capital budgeting framework; appropriate tax law will be discussed as it affects real estate cash flows.

Prerequisite(s): FIN 3134

FIN 4204 - Environmental, Social, and Governance Financial Analytics (3 credits)

Environmental, Social and Governance (ESG) factors impacting corporate investment and financing decisions. Analytical tools for incorporating ESG factors into various forms of financial analysis including capital budgeting, capital structure, financing decisions, and investment portfolio management.

Prerequisite(s): (FIN 3054 or FIN 3074) and FIN 3144 and FIN 3154

FIN 4214 - Financial Modeling in Excel (3 credits)

Concepts of finance applied to the construction of models in Excel. Construct models of financial statement to evaluate financial strategies for a firm; design risk/return models for investment portfolio strategies using equity and/or debt securities; build models to optimize bond portfolios including interest rate sensitivities, duration and convexity; develop models to analyze and dynamically hedge option and futures portfolios; assemble binomial tree models on American options; build simulation models to evaluate different types of options.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4224 - Fixed Income Securities: Analysis and Management (3 credits)

Analysis of fixed income securities, including corporate bonds, U.S. Treasury notes and bonds, municipal bonds, money market securities, and home mortgages. The analysis include interest rate risk, credit risk, bond valuation theory, and the valuation of embedded options in the bond contract. Theories of the term structure of interest rates are presented. Must have a grade of C or better in prerequisites of FIN 3144 and 3154.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4225 - Analytics for Fixed Income Securities and Portfolio Management (3 credits)

4225: Management of fixed income securities in an experiential setting. Bond pricing and investment. Credit analysis and portfolio strategies in fixed income. Introduction to advanced analytical techniques in bond and portfolio analytics. Conduct research on individual companies, industries, and countries. Membership in BASIS (Bond And Securities Investing by Students). Must have a B- or better in prereq. Pass/Fail Only.

Prerequisite(s): FIN 3134

Corequisite(s): FIN 4224

FIN 4226 - Analytics Fixed Inc. Port Mgmt (3 credits)

4226: Advanced management of fixed income portfolios in an experiential setting. Advanced credit analysis and modeling. Advanced analytical techniques for bonds and portfolios. Lead research teams. Research macroeconomic and international capital trends. Execute reports for internal and external distribution, especially for the clients. Membership in BASIS (Bond And Securities Investing by Students). Must have a B- or better in prereq. Pass/Fail Only.

Prerequisite(s): FIN 4224 and FIN 4225

FIN 4234 - Venture Capital and Investment Banking (3 credits)

Explores the venture capital cycles of fund-raising, investing in portfolio firms, and exiting the investment. Focuses on the role of investment banking in the exiting of investments by taking the portfolio firms public through initial public offerings. Includes a conceptual component and an applied component in which the case method is used. Must have a grade of C or better in prerequisites of FIN 3144 and 3154.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4244 - Asset Valuation and Corporate Governance (3 credits)

The effect of corporate governance on asset-valuation. Case oriented course focusing on the valuation of non-financial assets such as projects, business units, private and public firms. Topics include method of comparables, discounted cash flow methods and the real options approach to valuation. Examines the external and internal governance mechanisms for preserving and enhancing the value of a firm. Must have a grade of C or better in prerequisites of FIN 3144 and 3154.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4254 - Bank Management and Financial Services (3 credits)

The functions of financial service providers and the risks inherent in the provision of banking and other financial services. Regulatory background and issues. Case oriented course. Must have a grade of C or better in prerequisites of FIN 3144 and 3154.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4255 - Credit Corps Lending Practicum (3 credits)

Credit underwriting of commercial loans in an experiential setting. Project work spans two semesters. 4255: First project and basic management of cash flows on legacy portfolio of loans. Credit analysis of middle market companies leading to recommendations for lending to such companies. Research on individual companies, their industries, or on commercial real estate projects. Research on relative loan pricing, trends in leverage loan markets. Professional-level presentation of loan recommendations. Exhibit the highest ethical standards and confidentiality and maintain a high level of responsibility, initiative, and performance. 4256: Finalization of first 4255 project as needed. Continuation of credit analysis and research applied to companies in different three-digit industry code, advanced credit risk and financial modeling, loan portfolio management on legacy loans including takedown/paydown of revolving lines. Reporting for internal distribution and for sponsor.

Prerequisite(s): FIN 3254 and FIN 4254 or FIN 4244

FIN 4256 - Credit Corps Lending Practicum (3 credits)

Credit underwriting of commercial loans in an experiential setting. Project work spans two semesters. 4255: First project and basic management of cash flows on legacy portfolio of loans. Credit analysis of middle market companies leading to recommendations for lending to such companies. Research on individual companies, their industries, or on commercial real estate projects. Research on relative loan pricing, trends in leverage loan markets. Professional-level presentation of loan recommendations. Exhibit the highest ethical standards and confidentiality and maintain a high level of responsibility, initiative, and performance. 4256: Finalization of first 4255 project as needed. Continuation of credit analysis and research applied to companies in different three-digit industry code, advanced credit risk and financial modeling, loan portfolio management on legacy loans including takedown/paydown of revolving lines. Reporting for internal distribution and for sponsor.

Prerequisite(s): FIN 4255

FIN 4264 - Managing Risk with Derivatives (3 credits)

The types, payoff, and pricing of derivative securities and contracts and their application in managing financial risks faced by corporations. Topics include options, forwards, futures and swaps; managing foreign currency risk, interest rate risk, stock price risk, and commodity price risk; and risk management techniques. Must have a grade of C or better in prerequisites of FIN 3144 and 3154.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4274 - Equity Securities: Analysis and Management (3 credits)

Advanced valuation and analysis of equity securities with case applications. Critical analysis of advanced equity asset pricing models. Analysis of advanced equity portfolio management techniques, equity portfolio performance measurement, and equity portfolio performance attribution analysis. Identification and analysis of market anomalies and recent developments in equity analysis. Must have grade of C or better in prerequisites of FIN 3144 and 3154.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4275 - Analytics for Equity Securities and Portfolio Management (3 credits)

Selection and management of equity securities in an experimental setting. Analysis, selection, and investment in common stocks. Introduction to advanced analytical techniques in equity evaluation and portfolio analytics. Research individual companies, industries, economic sectors, and national and global macroeconomic trends. Use appropriate software to develop financial models. Present buy and sell recommendations for actual execution in the portfolio. Maintain a high level of fiduciary responsibility. Pass/Fail only. Membership in SEED (Student-Managed Endowment for Educational Development).

Prerequisite(s): FIN 3134

Corequisite(s): FIN 4274

FIN 4276 - Analytics for Equity Securities and Portfolio Management (3 credits)

Advanced management of equity portfolios in an experiential setting. Equity valuation and investing in equity securities. Advanced equity valuation analysis and modeling. Conduct and take a leadership role on teams that research individual companies, industries, and sectors. Research macroeconomic and international capital trends. Lead a team to present buy and sell recommendations for the portfolio and/or construct reports on equity topics. Present buy and sell recommendations for actual execution in the portfolio. Exhibit the highest ethical standards. Mentor new SEED analysts. Pass/Fail only. Membership in SEED (Student- Endowment for Educational Development).

Prerequisite(s): FIN 4274 and FIN 4275

FIN 4284 - Free Markets, Individual freedom, and Economic Welfare (3 credits)

Course exposes students to various viewpoints on the role free markets can and do play in promoting individual freedom. Allocation of scarce resources, and in enhancing welfare. Explores the strengths and weaknesses of capitalism by critically evaluating the relationship between the economic efficiency achieved by capitalism and the attainment of welfare objectives. Other topics include current items such as globalization, price controls, income equality, outsourcing, corporate pricing power through monopoly/oligopoly, and government regulation of the economy.

FIN 4294 - Commodity Invt. Portfolios (3 credits)

Application of fundamental commodity analysis and valuation techniques utilized to create a commodity investment portfolio in an experiential setting. Analysis, selection, and advanced analytical techniques in domestic and international agricultural, energy and metal commodities applied to a simulated investment in a commodity portfolio. Maintain a high level of fiduciary responsibility through developing, maintaining, and interpreting portfolio performance on a daily basis.

Prerequisite(s): FIN 3134 and FIN 3144

FIN 4314 - Field Projects in Finance (3 credits)

Finance-related business projects with external clients, which will include gathering and analyzing data, understanding relevant financial issues in a business context, formulating recommendations, and presenting analyses and recommendations in oral and written form. May be repeated once with different content for a maximum of 6 credit hours.

Prerequisite(s): FIN 3134 and FIN 3144 and FIN 3154

FIN 4954 - Study Abroad (1-19 credits)**FIN 4974 - Independent Study (1-19 credits)****FIN 4984 - Special Study (1-19 credits)**

Special Study

FIN 4994 - Undergraduate Research (1-19 credits)**FIN 4994H - Undergraduate Research (1-19 credits)**