

FINANCE

Finance Department (<https://www.njcu.edu/academics/schools-colleges/school-business/departments/finance/>)
200 Hudson Street, Harborside 2
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Studying finance prepares individuals to work with decision makers such as banks, government agencies, stockholders, suppliers, businesses, and more.

According to The Bureau of Labor Statistics, due to a "growing range of financial products and the need for in-depth knowledge of geographic regions," finance jobs are growing faster than the average for employment in the United States. Careers in financial analysis are expected to grow by 23 percent, financial management by 14 percent, and financial advising by 32 percent.

A finance career is a good choice for someone who is outgoing and inquisitive. Success in finance requires proficiency in mathematics, but diplomacy, collegiality, and responsibility are all assets to those aspiring to work in finance. Empathy is also a strength for those who study finance, as considering an organization's or client's goals, resources, and options help when discussing their options for financial growth and well-being.

A degree in finance prepares one for employment areas including:

- Corporate management
- International financial management
- Investment services
- Financial planning services
- Personal financial planning for individuals and private organizations
- Brokerage firms
- Insurance companies
- Commercial and investment banks
- Credit unions and private banks

J.D Jayaraman, Chairperson

Associate Professor of Finance

Anna University, Chennai, India, B.S.; Bharathidasan Institute of Management, Trichy, India, M.B.A., Oklahoma State University, Ph.D.

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Associate Professor of Finance

Hebei University of Economics and Business, B.A.; Shanghai University of Finance and Economics, M.A.; Southern Illinois University Carbondale, Ph.D.

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Goucher College, A.B.; New York University, M.B.A.

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Soongsil University, B.E.; Pohang University of Science and Technology, M.S.; University of Michigan at Ann Arbor, M.S.; University of Glasgow, Ph.D.

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FAST National University of Computer and Emerging Sciences, B.S.; University of Miami, M.B.A.; International University of Japan, M.B.A.

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The Pennsylvania State University, M.A., M.A.; Stanford University, M.S., Ph.D.

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Assistant Professor of Finance

University of International Business and Economics, B.S.; Stevens Institute of Technology, M.S., Ph.D.

Various discipline-specific concentrations that will prepare students for multiple fields of employment or areas of additional undergraduate/graduate study are noted below. Course requirements for each concentration are explained in detail. The requirements for graduation, in addition to completion of the major area, are listed on "Undergraduate Degree Requirements (<https://catalog.njcu.edu/undergraduate/undergraduate-degree-requirements/>)."

- Finance, B.S. (<https://catalog.njcu.edu/undergraduate/business/finance/finance-bs/>)
- Business Analytics and Data Science, B.S. (<https://catalog.njcu.edu/undergraduate/business/finance/business-analytics-and-data-science-bs/>)
- Business Analytics and Data Science, Minor (<https://catalog.njcu.edu/undergraduate/business/finance/business-analytics-and-data-science-minor/>)
- Business Information Systems, B.S. (<https://catalog.njcu.edu/undergraduate/business/finance/business-information-systems-bs/>)
- Professional Financial Planning, Minor (<https://catalog.njcu.edu/undergraduate/business/finance/professional-financial-planning-minor/>)

Finance (FINC)

FINC 1XX Finance Transfer Credit (0 Credits)

FINC 2XX Finance Transfer Credit (0 Credits)

FINC 105 Introduction to Data Literacy (3 Credits)

This course will introduce students to the basics of data literacy. Students will learn how to pose a question/problem, collect, process, analyze and interpret data to find data patterns and make predictions. The course will also discuss the future of data analytics and ethical issues.

FINC 215 Real Estate Principles I (3 Credits)

This course is designed to provide an introduction to the fundamental legal concepts and principles which underlie all modern real estate transactions. Particular attention is given to real property law, real estate transactions, contract negotiations and financing issues.

FINC 220 Foundations of Finance for Business and Life (3 Credits)

This course provides an introduction to the three foundations of finance - the financial system, investments, and business finance. With an integrated perspective on three areas, the course stands alone as a survey of the financial environment, and forms a balanced platform for further study in business and finance.

Pre-Requisite(s): AUR Math

FINC 221 Foundations of Business Information Systems (3 Credits)

This course introduces students to contemporary business information systems (BIS) and demonstrates how these systems are used throughout global organizations. Key components of BIS - people, technology infrastructure, data, and communication technologies will be discussed.

FINC 250 Financial Literacy: Strategies for Financial Success (3 Credits)

Students will explore behaviors necessary to make ethical and realistic financial decisions in changing situations and evaluate their collective societal impact. In a cultural and civic context, learners will develop lifelong strategic financial management skills to grow into responsible citizens, smart consumers and successful economic units.

FINC 305 Introduction to Data Science (3 Credits)

This course will provide students with an overview of the field of data science and business analytics. Students will get a high level understanding of data acquisition, data manipulation, data storage, data analysis and data visualization. Students will also be introduced to machine learning and predictive analytics.

FINC 306 Statistical and Mathematical Foundations for Business Analytics and Data Science (3 Credits)

This course will provide students with the basic mathematical knowledge used by the algorithms and models in data science field. Students will learn the basics of calculus, linear algebra, probability, statistics and optimization process.

FINC 310 Basics of Business Telecommunications and Technology Infrastructure (3 Credits)

This course focuses on business telecommunications and infrastructure capabilities as well as limitations. Students will have a good understanding of the principles of business telecommunications and infrastructure that will allow organizations to gain a competitive advantage. Network planning, design, management, security, data transmission, layering and different protocols will be discussed.

Pre-Requisite(s): AUR Math, MATH 164, BUSI 203 or equivalent.

FINC 315 Real Estate Principles II (3 Credits)

This course is designed for business administration majors seeking in-depth knowledge of real estate and for real estate professionals seeking to enhance their careers.

FINC 320 Investment Principles for Financial Planning (3 Credits)

This course presents investment planning concepts, integrated with the techniques of securities analysis and portfolio management, in the context of the financial planning process. Topics include risk and return measurement, traditional investments, alternative investment choices, valuation techniques, modern portfolio theory, asset allocation, and portfolio performance evaluation.

Prerequisite: or Co-requisite FINC 375 Essentials of Financial Planning or FINC 371 Managerial Finance

Co-requisite: FINC 375 Essentials of Financial Planning or FINC 371 Managerial Finance

FINC 330 Tax Planning (3 Credits)

This course examines the issues, concepts and strategies for tax planning and selected insurance components. Topics consist of individual and business tax law, annuities, health, disability, and long-term care insurances, including CFP Board's code of ethics and professional responsibility and rules of conduct, CFP Board's financial planning practice standards, and CFP Board's disciplinary rules of procedures.

Pre-requisites: or Co-requisites FINC 375

Co-requisites: FINC 375

FINC 364 International Finance (3 Credits)

The basic international financial markets and instruments which a corporate treasurer uses to finance a multinational or global entity are explored in this course. Topics include foreign currency markets and strategies for minimizing risk, motivation for direct foreign investment, lending and investment criteria, risk mitigation via export credit agencies, trade barriers and tax implications and special problems of multinational firms.

Pre-Requisite(s): ACCT 251 Financial Accounting, ACCT 252 Management Accounting

FINC 365 Public Finance (3 Credits)**FINC 370 Entrepreneurial Finance (3 Credits)**

This course introduces the principles of business finance from the perspective of starting and growing new ventures. Topics correspond with the life cycle of an enterprise, including forms of small-business organization, sources of early-stage and subsequent financing, best practices in management of scarce resources, and strategies for harvesting the venture.

FINC 371 Managerial Finance (3 Credits)

This survey course introduces a variety of tools and techniques for financial problem solving and decision making. Topics such as the time value of money, stock and bond valuation, effects of risk on the rate of return, capital budgeting, financial forecasting, and financial leverage are covered.

Pre-Requisite(s): ACCT 252 Management Accounting, ECON 208 Prin

FINC 375 Essentials of Professional Financial Planning (3 Credits)

This course provides an overview of professional financial planning theory and practice in the context of ethical behavior, understanding client needs, and regulatory compliance. Topics include purposes of financial planning, value of objective advice, financial analysis tools, the financial planning process, and the client advisor relationship.

FINC 391 Foreign Trade (3 Credits)

The fundamentals of trade finance, with an emphasis on current trade flows and their importance to the global marketplace, are explored in this course. Topics include bases of export marketing, trade documentation (letters of credit, drafts, and bills of lading), specialized trade financing, the international environment and medium and long-term options for financing trade flows.

FINC 403 Fundamentals of Data Visualization for Business Analytics and Data Sciences (3 Credits)

This course will provide students with the techniques and state of the art practices in data visualization and communication. The course will explore a wide range of techniques from simple charts to multidimensional analysis using dashboards. The course will help students visually present recommendations for better data driven decision making.

FINC 404 Risk Management and Insurance (3 Credits)

This course examines the issues, concepts and strategies to reduce or transfer risk and uncertainty. It includes traditional and newer techniques in insurance and non-insurance methodologies. Topics include diversification, hedging, preference analysis, and dynamic programming.

Pre-requisite(s): FINC 371, MGMT 203

FINC 405 Programming Basics for Business Analytics and Data Science (3 Credits)

In this course students will be introduced to the Python programming language, which are the widely used programming languages in the field of data science. Students will get a good understanding of using Python for statistical modeling and machine learning.

FINC 410 Introduction to Forecasting Models and Experimental Design for Business Analytics and Data Science (3 Credits)

This course will provide students with a thorough understanding of regression analysis. It covers both the theory and application of regression analysis. It focuses on maximum likelihood and time series techniques. As well, this course also covers the interpretation of regression results and best practices for regression analysis. This course will also provide students with a basic understanding of experimental design and to help students develop students with a basic understanding of experimental design and to help students develop the skills necessary to efficiently and effectively design and analyze experiments.

FINC 415 Basics of Data Collection, Data Warehousing, and Data Cleansing (3 Credits)

This course will provide students with an overview of data management process, including data format and structure, collection, storage, and cleansing. Students will be exposed to various techniques required for collecting data from different sources, storing and accessing data, and cleaning data.

FINC 420 Principles of Estate & Insurance Planning (3 Credits)

The course examines the issues, concepts and strategies for appropriate disposition of a descendant's estate and pre-death wealth transfer methods. It includes protection for survivors in the event of death, and life, and health insurance. Includes property characteristics, wills, trusts and probate process, estate planning, tax reduction strategies, and insurance.

Pre-Requisite(s): FINC 375

FINC 425 Spreadsheet Applications in Business and Finance (3 Credits)

This course emphasizes the power of data analytics and computer technology to inform contemporary financial decisions and risk management. Using internet resources and spreadsheet software, we will build financial models for real-world data. Students will develop their Bloomberg and Excel proficiencies while they practice forecasting, valuation, and hedging techniques.

Pre-requisite(s): MGMT 203, and FINC 371.

FINC 430 Principles of Machine Learning (3 Credits)

This course will provide students with a thorough understanding of machine learning concepts. Students will learn the common algorithms used in machine learning and will be able to implement them in R or Python. Students will learn how to apply machine learning algorithms to detect patterns in the data and to predict outcomes.

FINC 435 Financial Planning for Retirement, Benefits, & Education (3 Credits)

This course examines both public and private retirement plans, including Social Security, Medicare, Medicaid, defined benefit and contribution plans. Regulatory provisions and non-qualified deferred compensation plans are analyzed. Issues faced in retirement, such as community and life-style decisions, concurrent education needs, insurance options, and medical issues, are discussed.

FINC 471 Seminar: Issues in Corporate Finance (3 Credits)

This course uses the case method to analyze major corporate resource decisions in a risk-return framework. There is an emphasis on the process of value creation through appropriate long-term investment and financing policies. Topics include capital budgeting, debt management and corporate restructuring.

Pre-Requisite(s): MGMT 203 Business Statistics and FINC 371 Managerial Finance

FINC 473 Portfolio Analysis (3 Credits)

This course provides a comprehensive introduction to the area of securities analysis and portfolio management. Investing is approached as a rational decision-making process in which the investor attempts to select a portfolio of securities that meet a pre-determined set of goals, including desired return and acceptable degree of risk.

FINC 474 Capital Markets & Financial Institutions (3 Credits)

A study of depository and non-depository financial institutions and how their functions differ for purposes of channeling the flow of funds into and out capital markets. Topics such as the demand for and supply of money, determinants of market interest rates, principles for selecting investment assets and financial intermediaries are studied.

Pre-Requisite(s): FINC 371 Managerial Finance and ECON 364 Money and Banking.

FINC 490 Capstone Financial Planning Case Study (3 Credits)

This course demonstrates the student's ability to apply all that he/she has learned in the Financial Planning curriculum to prepare a financial plan for a client. It requires a written case presentation, an academic appendix, and an oral presentation to multiple qualified judges to defend the analysis of the plan.

FINC 495 Capstone in Data Science (3 Credits)

This course is the culmination of the BS in Business Analytics and Data Science program. The student produces work that demonstrates mastery of the curriculum. The form of the work can be a capstone project, or other work deemed suitable by the faculty advisor.

FINC 504 Quantitative Methods for Business Decisions (3 Credits)

This course is aimed at familiarizing the student with the basic statistical techniques necessary to perform the research project (see BUSI 655). Following a brief review of basic statistical techniques the course will concentrate on regression analysis, topics in exponential design and analysis of variance, transformation of data and introductory econometric analysis.

FINC 506 Managerial Economics (3 Credits)

Managerial Economics applies economic theory and models such as supply and demand, optimization, elasticity and regression analysis to business decision making within the firm or organization. Students learn how economic forces affect output, hiring, product pricing, demand estimation and market forecasting and how to make profitable decisions to achieve the goals of the firm.

FINC 507 Corporate Financial Management (3 Credits)

This course provides an advanced level overview of principles and practices used by the finance professional. In particular, it covers the financial environment, utilizing net present value (NPV), valuation of financial assets, project analysis, opportunity cost of capital, risk and return, capital budgeting, debt and dividend policies, mergers, and planning.

Pre-Requisite(s): ACCT 501

FINC 514 Introduction to Business Analytics and Data Science (3 Credits)

This course will provide students with an overview of the field of data science and business analytics. Students will get a high level understanding of data acquisition, data manipulation, data storage, data analysis and data visualization. Students will also be introduced to machine learning and predictive analytics.

FINC 515 Programming for Business (3 Credits)

In this course students will be introduced to the R programming language and the Python programming language, which are the two widely used programming languages in the field of data science. Students will get a good understanding of using R and Python for statistical modeling and machine learning.

FINC 516 Computer Networks and IT Infrastructure (3 Credits)

This course introduces the fundamentals of networking infrastructure, different types of networks and network hardware/software. Data transmission, switches, routers, wiring and physical protocol, layering will be discussed. Business technology infrastructure capabilities and limitations with a particular focus on core computing architecture, operating systems, data centers, IT security, cloud x computing and CAAS will be discussed.

FINC 517 Business Telecommunications and Technology Infrastructure (3 Credits)

This course introduces the fundamentals of Business Telecommunications, different types of networks and network hardware/software. Data transmission, switches, routers, wiring and physical protocol, layering will be discussed. Business technology infrastructure capabilities and limitations with a particular focus on core computing architecture, operating systems, data centers, IT security, cloud computing and CaaS will be discussed.

FINC 519 Economics for Educators (3 Credits)

This course is specifically designed for practicing k-12 educators. It will improve your understanding of key elements of economics, philosophy, and business, and help you to teach your students to become more informed citizens and to live a fulfilling life.

FINC 520 Statistical and Mathematical Methods for Data Science (3 Credits)

This course will introduce students to the statistical and mathematical methods needed in the practice of data analytics. Students will learn the basics of statistics, probability, linear algebra, calculus and optimization techniques relevant to data analytics.

FINC 525 Financial Modeling (3 Credits)

This course focuses on the development of microcomputer solutions to financial problems. There is an emphasis on the custom design and implementation of models, using spreadsheet and database applications software. Topics include financial statement modeling, forecasting of free cash flow, leasing and capital budgeting decisions, option pricing and portfolio optimization.

FINC 530 Machine Learning for Business I (3 Credits)

This course will provide students with a thorough understanding of machine learning concepts. Students will learn the common machine learning algorithms and implement them in R or Python. Students will learn how to apply machine learning algorithms to detect patterns in the data and to predict outcomes.

Pre-Requisite(s): FINC 515

FINC 531 Current Topics in Financial Technology (3 Credits)

This course will introduce student to all the current topics in financial technology. Topics will include crypto currencies, cyber security, peer to peer lending systems, digital systems, robo-advisers and blockchain technology.

FINC 534 Big Data Analysis and Cloud Technologies (3 Credits)

This course will provide students with a thorough understanding of big data analysis and cloud techniques. Students will learn the concept of big data and the solution of business analysis, including cloud computing, Hadoop, and Spark. Specifically, students will learn how to deploy machine learning models with a large dataset on cloud platforms.

FINC 535 Data Management (3 Credits)

This course will provide students with a thorough understanding of the process starting from collecting data, cleaning data, to the storage of data. Students will be exposed to various tools and techniques required for collecting data, cleaning and normalizing the data and storing and retrieving large amounts of data.

Pre-Requisite(s): FINC 515

FINC 536 Data Science for Social Good (3 Credits)

This course will focus on using data science and AI for social good. It will cover a broad range of topics starting with identifying social problems where data science can be of help, applying machine learning techniques to help solve these problems, and understanding the ethical aspects of AI.

FINC 537 Business Information Systems Principles and Ethical Issues (3 Credits)

This course introduces students to contemporary business information systems (BIS) and demonstrate how these systems are used throughout global organizations. Key components of BIS - people, software, hardware, data, and communication technologies will be discussed. This course also introduces students to ethical issues in computing.

FINC 540 Business Information Systems Analysis, Design and Acquisition (3 Credits)

The course covers a systematic methodology for analyzing a business problem or opportunity, modelling it using a formal technique, determining what role, if any, computer-based technologies can play in addressing the business need, and specifying the requirements for the Business Information Systems (BIS) solution in particular, in-house development or purchased commercial-off-the-shelf (COTS) packages.

FINC 550 Experimental Design (3 Credits)

This course will provide students with a thorough understanding of Experimental design and help students develop the skills necessary to effectively design and analyze experiments. Common techniques used in Experimental Design such as Fixed Effects model, Random Effects model, Mixture experiment, Factorial Design, and Latin Square will be discussed.

Pre-Requisite(s): FINC 520

FINC 560 Data Visualization and Communication (3 Credits)

This course will provide students with the techniques and state of the art practices in data visualization and communication. The course will also explore a wide range of techniques from simple descriptive charts and maps to multidimensional analysis using dashboards, helping students develop creative visualizations to communicate data analysis.

Pre-Requisite(s): FINC 530

FINC 565 Time Series Modeling and Experimental Design (3 Credits)

This course will provide students with a thorough understanding of regression analysis. It covers both the theory and application of regression analysis. It focuses on maximum likelihood and time series techniques. As well, this course also covers the interpretation of regression results and best practices for regression analysis.

Pre-Requisite(s): FINC 520

FINC 1272 Investment Principles and Analysis (Honors) (3 Credits)

This course covers the basics of investing. Topics include a comprehensive overview of financial instruments and real assets available for investment, current procedures and trends in trading practices, and an introduction to valuation techniques. There is consideration of the risk-return tradeoff, the characteristics of efficient markets, and opportunities for global investing. Cross-reference: ECON 271 Investment Principles/Practices.

FINC 1364 International Finance (Honors) (3 Credits)

The basic international financial markets and instruments that a corporate treasurer uses to finance a multinational or global entity are explored in this course. Topics include foreign currency markets and strategies for minimizing risk, motivation for direct foreign investment, lending and investment criteria, risk mitigation via export credit agencies, trade barriers and tax implications and special problems of multinational firms.

FINC 1371 Managerial Finance (Honors) (3 Credits)

This survey course introduces a variety of tools and techniques for financial problem solving and decision making. Topics such as the time value of money, stock and bond valuation, effects of risk on the rate of return, capital budgeting, financial forecasting, and financial leverage are covered.

FINC 1473 Portfolio Analysis (Honors) (3 Credits)

This course provides a comprehensive introduction to securities analysis and portfolio management. Investing is approached as a rational decision-making process in which the investor attempts to select a portfolio of securities that meet a pre-determined set of goals, including desired return and acceptable degree of risk.

FINC 1474 Capital Markets and Financial Institutions (Honors) (3 Credits)

This course examines depository and nondepository financial institutions and how their functions differ for purposes of channeling the flow of funds into and out of capital markets. Topics such as the demand for and supply of money, determinants of market interest rates, principles for selecting investment assets and financial intermediaries are studied.

FINC 1571 Seminar: Issues in Corporate Finance (Honors) (3 Credits)

This course uses the case method to analyze major corporate resource decisions in a risk-return framework. There is an emphasis on the process of value creation through appropriate long-term investment and financing policies. Topics include capital budgeting, debt management and corporate restructuring.