Finance and Legal Studies

Finance and Legal Studies is a multi-disciplinary field that combines various concepts from management, economics and accounting with financial techniques to make sound business decisions and solve problems. There are many business situations in both large and small companies that require knowledge of the latest financial practices and tools. Generally, these applications involve investing (using funds) or financing (raising funds). As a result, the field is comprised of a number of areas including corporate finance, investments, financial institutions and services (banking, insurance, real estate) and personal financial planning.

Over the last two decades, the field of finance has become increasingly technical and specialized. Employers recruiting for financial positions not only require candidates to have an undergraduate or graduate degree in finance, but they also want new employees to exhibit skills and experience beyond those typically found in a traditional academic environment. As a result, professional licensing or certification has become one of the most widely recognized means of demonstrating core competency. Consequently, the finance program at the University of Missouri - Saint Louis carefully integrates finance tracks into the curriculum to enable students to complete their academic degrees while at the same time providing the in-depth knowledge necessary for taking professional certification exams. Our program is designed to accelerate professional development and provide students with superior credentials to qualify them for skilled positions in a highly competitive job market.

The Department of Finance and Legal Studies offers six track certifications in addition to General Finance Emphasis for undergraduate students. These tracks include Corporate Finance, Financial Institutions and Services, Investment and Portfolio, Financial Planning, Insurance, and the newest track, Fintech (or Financial Technology). Fintech is one of the most fast-moving industries. The applications of Fintech go over different areas in investments and financial institutions. The Fintech track gives students an opportunity to view finance from a technological perspective. The track introduces students to major areas of Fintech which include Blockchain, Cryptocurrencies, FinTech Credit, Big Data, Machine Learning, Neural Network, Robo Advisers, Algorithmic Trading, etc. These new financial technology and applications will give students an opportunity to understand the interaction among finance, technology, and regulation in the financial industry.

The BS in Actuarial Science degree at UMSL is an interdisciplinary program offered by the Department of Mathematics and Computer Science, the Department of Economics, and the Department of Finance and Legal Studies. Actuaries use the tools of math, economics and finance to evaluate and price risk. Actuaries work in the fields of insurance and finance. This major is among the highest-paying of all undergraduate majors.

The department also supports Flex MBA degree with Emphasis in Finance and the newly launched DBA program.

Practical Experiences and Enrichment Opportunities for Students

The department also contains many rewarding opportunities for students such as the Student Investment Trust, the Finance Club, and the Finance Career Conference. The Student Investment Trust offers students a great opportunity to learn investments and portfolio management by investing real money in the securities markets. Students manage a portfolio worth $350,000 and learn to apply tools and techniques learned in the classroom. Students also have the opportunity to participate in the CFA Case Competition and Industrial Issues Competition by the Society of Financial Service Professionals, guided by faculty in the department.

The Finance Club contributes with multiple resources for students that are interested in a career in the financial industry through workshops, job fairs, and finance career mentoring events.

The Finance Advisory Board brings business leaders from local companies, banks, insurance companies, and securities firms to campus. They are actively engaged in student enrichment, curriculum development and student mentoring program.

The department, the Finance Club and the Finance Advisory Board host a Finance Career Conference every year in which students will learn about building a career in the financial field. The conference includes keynote speakers, live panel discussions and multiple professional workshops. More importantly, students have the opportunity to network with companies from all over the St. Louis region to discuss internships, placement opportunities, and career development.

Scholarship Opportunities

The department offers a variety of scholarship opportunities, including Boeing Company Scholars Program in Business, Mindy Griffin Finance Scholarship ($2000), James and Mary Lou Krueger SIT ($2000), Kenneth Locke SIT ($2000) and NISA Investment Advisors Scholarship, in addition to general business scholarships.

Job and Internship Opportunities

New graduates with bachelor’s degrees in finance from UMSL have a wide selection of career opportunities to choose from. At the corporate level, companies such as Boeing, Bayer, and Ameren hire our graduates for positions in budget analysis, project management, working capital management, and mergers and acquisitions. Local and national investment firms such as Edward Jones, Moneta Group, Ameritrade hire many of our students to serve as stockbrokers, financial analysts, wealth managers, financial planners, and portfolio managers. In banking, new graduates are employed in management positions in commercial and consumer lending, trust services, operations and branch banking. The insurance and real estate industries also have a strong presence in St. Louis (e.g. Northwestern Mutual, Cushman and Wakefield) hire graduates for various sales and administrative positions.

Students have many internship opportunities in their junior and senior years, facilitated by the internship offices at the College of Business Administration. Internships not only provide valuable real-world experience to complement academic learning, but enhances student marketability at graduation. Over 95 percent undergraduate students have jobs or are pursuing a graduate degree within 6 months of graduation.

Faculty

The Department of Finance and Legal Studies contains a very prestigious faculty group that holds Ph.D.’s from many major U.S. universities and has extensive industrial experience to share in the classroom. They hold many highly respected certifications such as the CFA, FRM, and CFP and have won a range of college, campus and UM system awards for excellence in research and teaching.

As active researchers, they are on the cutting edge of new developments in the filed which are carefully integrated into coursework. The Finance area recently was ranked in the top 12% of all finance faculties nationwide.
based on academic productivity. All of the law faculty hold J.D. degrees from major U.S. universities and have many years of experience in private law practice both national and international.

Degrees

Business Administration BS, Finance Emphasis (http://bulletin.umsl.edu/programs/business-administration-bs-finance-emphasis/)

Business Administration MBA, Finance Emphasis (http://bulletin.umsl.edu/programs/business-administration-mba-finance-emphasis/)

Minor

Finance Minor (http://bulletin.umsl.edu/programs/finance-minor/)

Affiliated Interdisciplinary Programs

Actuarial Science BS (http://bulletin.umsl.edu/programs/actuarial-science-bs/)

Actuarial Studies Undergraduate Certificate (http://bulletin.umsl.edu/programs/actuarial-studies-undergraduate-certificate/)

Courses

FINANCE 1590 Personal Finance for Nonbusiness Majors: 3 semester hours
For future professionals who want to learn more about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning and health and life insurance. Special emphasis will be on the nontechnical aspects of these issues. Cannot be used for credit in BSBA program.

FINANCE 3500 Financial Management: 3 semester hours
Prerequisites: ECON 1002, MATH 1105, ACCTNG 2400, INFSYS 2800, and a minimum overall GPA of 2.0. The study of a firm's need for funds; the institutions, instruments and markets concerned with raising funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

FINANCE 3501 Financial Policies: 3 semester hours
Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The intensification and application of the concepts developed in FINANCE 3500. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

FINANCE 3503 Computer Applications in Finance: 3 semester hours
Prerequisite: INFSYS 1800, FINANCE 3500, one 3000-level finance course and a 2.0 overall GPA. Financial problem solving and applications on the micro-computer. A project oriented course with an emphasis on micro based finance projects: Present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options and futures.

FINANCE 3520 Investments: 3 semester hours
Prerequisite: FINANCE 3500 and a 2.0 overall GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible "over the counter" markets. Techniques of such analysis being presented in context with economic and management circumstances within the company, industry and economy.

FINANCE 3521 Financial Engineering: Applying Derivatives: 3 semester hours
Prerequisites: FINANCE 3500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 3520) prior to enrolling in FINANCE 3521.

FINANCE 3523 Fixed Income Analysis: 3 semester hours
Prerequisites: FINANCE 3500. This course explores key issues in fixed income securities. The topics include pricing of bonds, measuring bond yields, bond price volatility, factors affecting yields and the term structure of interest rates, treasury securities, corporate debt instruments, residential mortgage loans, collateralized mortgage/debt obligation, and analysis of bonds with embedded options. The course prepares students for the CFA exams of Level 1 in the area of fixed income analysis.

FINANCE 3524 Advanced Investment Management: 3 semester hours
Prerequisites: FINANCE 3520 or consent of the instructor. This course reviews various advanced topics in investment management. The topics include (1) portfolio management, (2) fixed income analysis, (3) equity analysis, (4) economics in a global context, (5) derivatives, (6) alternative investments, and (7) Ethical and Professional Standards. The course provides students with theoretical and practical knowledge in portfolio management techniques and advanced investment strategies. The course materials are related to the CFA (Chartered Financial Analyst) Level I Exam curriculum.

FINANCE 3525 Practicum in Investments: 1 semester hour
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. Students will apply their knowledge of stocks and bonds by managing a real dollar portfolio of securities. This course requires that students perform technical and fundamental analysis, prepare research reports, present proposals and participate in group investment decisions. The University's Student Investment Trust provides the money for students to invest. Course may be repeated for credit up to a maximum of 3 credit hours.

FINANCE 3540 Introduction to Financial Institutions and Financial Markets: 3 semester hours
Prerequisite: FINANCE 3500 and a 2.0 overall GPA. The course surveys financial institutions and financial markets and addresses the interplay between institutions and markets. State and federal regulation of institutions and markets is explored. A portion of the course addresses current events, managerial policy issues, and regulatory issues in financial services and markets. Focus is primarily U.S. institutions and markets, but the evolving impact of globalization and importance of the Foreign Exchange Market on U. S. financial institutions are developed.

FINANCE 3541 Commercial Bank Management: 3 semester hours
Prerequisites: ECON 1002, FINANCE 3500 and a 2.0 overall GPA. Corporate finance and microeconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.
**FINANCE 3542 Principles of Real Estate: 3 semester hours**
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. As an introduction to the real estate industry, the course broadly explores all phases of acquisition, development and disposal of real property. Topics include legal requirements of contracts, property rights, valuation and appraisal techniques, marketing, brokerage operations and practices, mortgage financing, leasing and property management.

**FINANCE 3545 Seminar in Venture Capital and Private Equity: 3 semester hours**
Prerequisites: FINANCE 3500 and another finance elective. This course examines venture capital and private equity firms as an important category of financial institutions. The main focus of the course is on financial, economic, and legal issues that develop between venture capital firms and their limited partners and between private equity firms and the firms in which they invest. More specifically, the course will explore the following processes: (1) how private equity and venture capital firms raise capital; (2) how they deal with firms in which they invest; and (3) how they exit investments. The course also discusses technology development process including protection through patents before they are licensed or used to establish as startup companies.

**FINANCE 3560 Practice of Personal Financial Planning: 3 semester hours**
Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. Professional financial planning requires broad knowledge of investments, insurance, income taxation, retirement planning, and estate planning, as well as certification requirements and legal/ethical issues. This course introduces students to the field of financial planning, and provides an integrated overview of the topics listed above. Students interested in the Financial Planning track are encouraged to complete this course prior to taking other courses in the track.

**FINANCE 3561 Principles of Insurance: 3 semester hours**
Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This is a survey course intended to introduce students to the basic concepts of insurance. Topics include the nature of risks, types of insurance carriers and markets, insurance contracts and policies, property and casualty coverages, life and health insurance, and government regulations. The functions of underwriting, setting premiums, risk analysis, loss prevention, and financial administration of carriers are emphasized.

**FINANCE 3562 Life Insurance and Employee Benefits: 3 semester hours**
Prerequisites: FINANCE 3500 or equivalent and a minimum campus GPA of 2.0. This course explores the life insurance business from the perspective of both the consumer and provider. Coverage will include an analysis of the various types of life insurance products, aspects of life insurance evaluation, reinsurance, underwriting, and uses of life insurance in financial planning. Also included is an examination of the tax, legal, and ethical requirements.

**FINANCE 3563 Retirement Planning and Employee Benefits: 3 semester hours**
Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. The course is designed to give students an understanding of the retirement planning process. Students will gain an appreciation of the usefulness (and shortcomings) of employee benefits and develop an ability to counsel others on important retirement and employee benefit decisions. Corporate pension and profit sharing plans, self-employed Keough plans, IRA's, annuities, health insurance, and social security will be discussed.

**FINANCE 3564 Estate Planning and Trusts: 3 semester hours**
Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. This course will focus on the responsibility of a financial planner in the formulation and implementation of an estate plan. Topics include wills, lifetime transfers, trusts, gifts, estate reduction techniques, tax implications in estate planning, business and inter-family transfers, dealing with incompetency, postmortem techniques, and the role of fiduciaries. Lectures, cases, and guest speakers will be used to stimulate analysis and discussion.

**FINANCE 3565 Seminar in Financial Planning: 3 semester hours**
Prerequisites: ACCTNG 3441, FINANCE 3520, FINANCE 3560, FINANCE 3561, FINANCE 3563, and FINANCE 3564; a minimum campus GPA of 2.0; or consent of instructor. This course serves as the capstone in the registered Financial Planning curriculum. Students will prepare and present comprehensive, professional-level personal financial plans. This course is required by the Certified Financial Planner Board of Standards for those who wish to sit for the Certified Financial Planner examination.

**FINANCE 3570 Essentials of Fintech: 3 semester hours**
Prerequisites: FINANCE 3500 or consent of the instructor. This is an introductory course to provide students an overview of Fintech (Financial Technology). The course may include the following topics: Blockchain, Cryptocurrencies, FinTech Credit, Artificial Intelligence and Big Data, Robo Advisers, FinTech Regulation and RegTech, and Algorithmic Trading. This course provides students with the foundations for the interaction of finance, technology, and regulation in the financial industry.

**FINANCE 3572 Financial Data Programming: 3 semester hours**
Prerequisites: FINANCE 3500 and a minimum campus GPA of 2.0. Students will learn the fundamentals of financial data programming with Python and R using structured data (tabular data such as spreadsheets) and unstructured data (text data such as social media) for application in finance fields.

**FINANCE 3574 Artificial Intelligence Applications in Finance: 3 semester hours**
Prerequisites: FINANCE 3572 or consent of instructor. This course introduces students to topics in artificial intelligence (AI) and its applications in finance fields. The course discusses the history of AI and machine learning (ML) and its general methodology of development of data models. The course presents AI and ML applications and real life examples in financial services industries, such as portfolio management, algorithmic trading, and credit scoring.

**FINANCE 3576 Blockchain in Business: 3 semester hours**
Prerequisites: FINANCE 3500 or consent of the instructor. The course is designed to provide students with an understanding of key concepts, developments and major applications of the blockchain, a peer-to-peer exchange mechanism without an intermediary. It covers the technical foundations of the blockchain, why it is needed, and how it works. It also explores a series of applications including but not limited to those in business entities. Credit cannot be granted for both FINANCE 3576 and FINANCE 6576.

**FINANCE 3580 International Corporate Finance: 3 semester hours**
Same as INTL BUS 3580. Prerequisites: FINANCE 3500 and a 2.0 campus GPA. This course explores corporate finance in the context of a global environment. Financial managers for an international firm must deal with all the normal problems faced by domestic corporations plus additional foreign exchange and political risks. Class discussions will focus on applying financial techniques to decision making in foreign operations. Students are required to work in a group to undertake a project related to international finance.
FINANCE 3582 International Investments: 3 semester hours
Same as INTL BUS 3582. Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

FINANCE 3583 The Law of International Business Transactions: 3 semester hours
Same as INTL BUS 3280. Prerequisites: BUS AD 2900 or consent of instructor. This course studies the role and function of International Law and national laws in the regulation of international business transactions. The impact of various legal regimes on import/export transactions, foreign investments, and the operations of multinational enterprises will be included. The role of national governments, supra-national governmental organizations, and non-governmental organizations in forming and administering the international legal environment will be studied.

FINANCE 3585 Business in China: 3 semester hours
Same as INTL BUS 3281. Prerequisites: A minimum campus GPA of 2.0 and junior standing. This course introduces students to the practices of doing business in China. Students will be introduced to the Chinese economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach, utilizing lectures, case analysis, projects, and student presentations.

FINANCE 3590 Internship in Finance: 1-3 semester hours
Prerequisite: a minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of finance electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience in a Track area are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project. FINANCE 3590 may not be counted toward the minimum 15 credit hours of finance electives for a finance emphasis.

FINANCE 3595 Special Administration Problems - Finance: 1-10 semester hours
Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

FINANCE 3598 Seminar in Finance: 1-3 semester hours
Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 overall GPA. This course is a selected special topic in the field of finance. May be repeated for credit with different topics.

FINANCE 3599 Independent Study in Finance: 1-3 semester hours
Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the Area Coordinator. Special individual study in finance under the supervision of a full-time finance faculty member.

FINANCE 5599 Individual Research in Finance: 1-3 semester hours
Prerequisites: Consent of instructor and graduate director. Special individual research topics in Finance under the guidance of a specific professor.

FINANCE 6500 Financial Management: 3 semester hours
Prerequisites: ACCTNG 5400 or ACCTNG 2400, SCMA 5300 or SCMA 3300, and BUS AD 5000 or ECON 1001 and ECON 1002. This course provides an in-depth analysis of corporate finance including asset pricing, risk and return, short- and long-term investment decisions, capital structure choices, dividend policy, derivatives, mergers and acquisitions, and a host of other current topics. The material is taught through lectures and problem solving.

FINANCE 6501 Advanced Financial Management: 3 semester hours
Prerequisite: FINANCE 6500 and SCMA 5300. Exposure to recent financial management theory through selected readings. Financial management problems are considered by the use of cases and simulation models. An original research project under the supervision of instructor is required.

FINANCE 6503 Computer Applications in Finance: 3 semester hours
Prerequisites: FINANCE 6500 and 3.0 overall GPA. This course focuses on modeling and data analytics in finance. Hands-on projects include applications in loan amortization, buy or lease decisions, financial statement analysis and forecasting, capital budgeting, bond and stock valuation, risk analysis, capital structure, and portfolio analysis. Students will learn basic and sophisticated Excel tools and how to build executive dashboards, interfaces, and other monitoring tools used in day-to-day business. They will also gain exposure to statistical inference, time series modeling, event study analysis, and machine learning techniques for forecasting and working with financial data.

FINANCE 6520 Security Analysis: 3 semester hours
Prerequisite: FINANCE 6500 and SCMA 5300. An in-depth study of techniques used in evaluating various financial assets as investment opportunities. Financial assets studied include common stock, preferred stock, and fixed income securities. Other related topics such as sources of investment information and current market trends are discussed.

FINANCE 6521 Financial Forensics: The Science of Derivatives: 3 semester hours
Prerequisites: FINANCE 6500. Students engage in a comprehensive investigation of advanced risk management techniques. Futures, forwards, options and synthetic securities are explored to determine their effectiveness in generating the desired risk exposure. A comprehensive study of speculative market conditions and characteristics are assessed in conjunction with a variety of financial innovations. Valuation techniques and hedging theories are combined with mathematical models to determine their effectiveness in practical situations. Special topics are introduced as market conditions dictate. It is recommended that students take Investments (FINANCE 6520) prior to enrolling in FINANCE 6521.

FINANCE 6523 Fixed Income Analysis: 3 semester hours
Prerequisites: FINANCE 6500. This course explores key issues in fixed income securities. The topics include pricing of bonds, measuring bond yields, bond price volatility, factors affecting yields and the term structure of interest rates, treasury securities, corporate debt instruments, residential mortgage loans, collateralized mortgage/debt obligation, and analysis of bonds with embedded options. The course prepares students for the CFA exams of Levels I and (part of) II in the area of fixed income analysis.
FINANCE 6524 Portfolio Analysis and Management: 3 semester hours
Prerequisites: FINANCE 6500. This course reviews various advanced topics in investment management. The topics include portfolio management, fixed income analysis, equity analysis, economics in a global context, derivatives, alternative investments, ethical and professional standards, and applications of technology in financial services such as machine learning. The course provides students with theoretical and practical knowledge in portfolio management techniques and advanced investment strategies. The course materials are related to the CFA (Chartered Financial Analyst) Level I Exam curriculum.

FINANCE 6540 Financial Institutions and Financial Markets: 3 semester hours
Prerequisite: Graduate standing and FINANCE 6500. By lecture and casework, the course surveys markets (Money Market, Capital Markets, Foreign Exchange) and various forms of financial institutions. Historical and evolving business models of financial institutions are explored in the context of regulation, economics, and competition. Interplay between institutions and markets is addressed. Structure and purpose of regulation is examined. A portion of the course involves current events and managerial policy issues in financial services. A major U.S. financial institution is selected and case analyzed by the class. Focus is U.S. institutions and markets, but impact of globalization is discussed.

FINANCE 6541 Commercial Bank Management: 3 semester hours
Prerequisite: FINANCE 6500. This course explores the various bank management techniques required to manage a modern commercial bank in a rapidly changing environment. Topics include asset and liability management, capital adequacy, bank holding companies, profitability, and bank market structure and regulation.

FINANCE 6542 Real Estate: 3 semester hours
Prerequisite: FINANCE 6500. This course provides a broad introduction to real estate with a focus on legal issues, market analysis, valuation, financing, leasing and investment decisions. Classes are conducted in a in a standard lecture format with discussion on current topics. No prior knowledge of the industry is required.

FINANCE 6545 Venture Capital and Private Equity: 3 semester hours
Prerequisites: FINANCE 6500. This course examines venture capital and private equity firms as an important category of financial institutions. The main focus of the course is on financial, economic, and legal issues that develop between venture capital firms and their limited partners and between private equity firms and the firms in which they invest. More specifically, the course will explore the following processes: (1) how private equity and venture capital firms raise capital; (2) how they deal with firms in which they invest; and (3) how they exit investments. Before discussing the main issues of the course, and as a way of introducing the subject, we begin with a brief discussion of the significance of venture capital funding in the technology transfer process and a simple example of venture capital funding from the perspective of an entrepreneur. As most new technologies are proprieties, the course also discusses technology development process including protection through patents before they are licensed or used to establish as startup companies.

FINANCE 6570 Introduction to Fintech: 3 semester hours
Prerequisites: FINANCE 6500. This course introduces students to the major topics of fintech (financial technology), including blockchain, cryptocurrencies, fintech credit, big data, machine learning, neural network, robo advisers, and algorithmic trading, as they relate to investments and financial institutions.

FINANCE 6572 Financial Data Analytics: 3 semester hours
Prerequisites: Graduate standing. This course covers fundamentals of Python and R programming with hands-on projects and specific applications in finance. Students will learn to acquire, clean, analyze and visualize both structured (tabular data such as spreadsheets) and unstructured data (text data such as social media). Both data programming languages are used in data analytics, machine learning, and artificial intelligence in modern financial services industry including banks, brokerage houses, hedge funds, and mutual funds.

FINANCE 6574 Artificial Intelligence and Machine Learning in Finance: 3 semester hours
Prerequisites: FINANCE 6572 or consent of the instructor. This course introduces students to artificial intelligence (AI) and machine learning (ML) and the applications in finance. The course covers the historical development of fundamental ideas in AI and ML, and its general methodology of the development of data models. The course provides a sampling of successful applications of AI and ML in different areas of finance, including portfolio management, algorithmic trading, fraud analytics, and credit scoring. Each of these topics are presented with real world examples and programming applications in languages like Python and R.

FINANCE 6576 Blockchain: Applications in Finance: 3 semester hours
Prerequisite: FINANCE 6500. This course introduces blockchain technology, a system of exchange among various parties without the need for an intermediary, and covers the evolution of blockchain with discussion of its applications in the financial services industry. Credit cannot be granted for both FINANCE 3576 and FINANCE 6576.

FINANCE 6580 International Financial Management: 3 semester hours
Same as INTL BUS 6580. Prerequisite: FINANCE 6500. The objective of this course is to introduce students to financial issues for multinational firms. Besides covering basic tools and techniques, the class stresses the role of the financial manager in analysis and decision-making. Topics include the impact of international accounting and tax issues, capital budgeting in a foreign environment, transfer pricing, and global funding. Conceptual skills for lifelong learning experiences are emphasized. This course employs a lecture and case format with group discussions.

FINANCE 6581 Seminar in International Investments: 3 semester hours
Same as INTL BUS 6581. Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the comprehensive project report. A prior investments course is recommended but not required.

FINANCE 6582 International Bank Management: 3 semester hours
Prerequisites: FINANCE 6500. The objective of this course is to introduce students to many challenging issues in international bank management. This is a specialized finance course dealing explicitly with global bank decision-makings of a multinational bank that uses a variety of financial tools and skills. The course will discuss the rapidly blurring distinctions between commercial and investment bankers. Conceptual skills for lifelong learning (evolving) experiences relevant to the global banking sector are emphasized.
**FINANCE 6590 Seminar in Finance: 3 semester hours**
Prerequisites: FINANCE 6500. This course incorporates a wide range of advanced topics in finance including, but not limited to, an evaluation of various financial assets as investment opportunities, trends in capital markets, derivatives and management of financial and non-financial firms.

**FINANCE 6591 Finance Internship: 1-3 semester hours**
Prerequisites: Students must have completed and/or be enrolled in at least 6 credit hours of finance electives and have consent of supervising faculty member and Area Coordinator. Students work in the field of finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student’s program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project.