

# DEPARTMENT OF FINANCE

All graduate programs in Finance are accredited by AACSB International - The Association to Advance Collegiate Schools of Business - and conform to recommended guidelines.

- M.S. in Finance – General Option (p. 1)
- M.S. in Finance – Real Estate Finance and Development Concentration (p. 1)
- Ph.D. in Finance (p. 2)

## Master of Science Degree in Finance

The Master of Science degree in Finance (M.S.F.) provides an intensive education in various aspects of finance, including markets and institutions, corporate finance, international finance, financial modeling, and investments including derivative securities. Emphasis is on theoretical aspects of finance, developments in financial instruments and markets, and practical application tools and techniques. The program is designed to train students to be financial managers and analysts in corporations, banks, and investment institutions. It also provides the opportunity for students to prepare to undertake specialized certification examinations and doctoral studies in finance. The program, including admission, is supervised by the Graduate Program Committee in Finance, which includes the Graduate Advisor in Finance. General requirements for completion of the program consist of nonfinance foundations of knowledge requirements, required finance courses, elective work, and a comprehensive examination.

### Program Admission Requirements

For admission to the Master of Science degree in Finance program, applicants must meet University-wide graduate admission requirements. Applicants are further considered on the basis of demonstrated potential for success in graduate study in finance as indicated by a combination of prior academic achievement, Graduate Management Admission Test (GMAT) or Graduate Record Examinations (GRE) scores, personal statement, résumé (optional), and references (optional).

The M.S.F. Graduate Program Committee evaluates each applicant individually based on the complete package of submitted materials.

A complete application package will include:

- A completed application form
- Transcripts from all universities attended
- Official GMAT or GRE scores
- A personal statement
- A current résumé with employment or other experience (optional)
- Letters of reference (optional)
- Interview (optional)

Students with nonfinance undergraduate degrees may be required to take additional undergraduate and graduate courses for removal of deficiencies, as determined by the Graduate Program Committee in Finance. Such courses do not apply toward the degree.

### Degree Requirements

Students must complete 33 semester credit hours and a comprehensive examination.

## Degree Options

Students seeking the M.S.F. degree may elect one of two options to complete the required 33 semester credit hours: M.S.F. General Option or M.S.F. Real Estate Finance Concentration.

### Master of Science Degree in Finance – General Option

Under M.S.F. General Option, students are required to complete 6 hours of M.S.F. foundations of knowledge courses, 9 hours of finance courses and 18 hours of elective courses as outlined below.

#### A. 6 semester credit hours of foundations of knowledge courses: 6

MBA 5113	Business Foundations
MBA 5133	Financial Accounting Concepts

#### B. 9 semester credit hours of required courses: 9

FIN 5023	Financial Management
FIN 5633	Investment Theory and Problems
FIN 6313	Modeling of Financial Decision Making

#### C. 18 semester credit hours of electives, at least 15 of which must be from the set of courses shown below. 18

No more than 6 semester hours of the real estate set of courses (FIN 5403, FIN 5423, FIN 5443, FIN 5453, FIN 6903) can be applied towards fulfillment of the electives requirement. The Graduate Advisor in Finance must approve any electives chosen outside this set. The electives include:

FIN 5033	Advanced Topics in Financial Management
FIN 5403	Real Estate Principles
FIN 5423	Real Estate Finance and Investment
FIN 5443	Real Estate Construction
FIN 5453	Real Estate Development
FIN 5723	Fixed Income Analysis
FIN 5733	Banking and the Financial Services Industry
FIN 5813	Corporate Valuation
FIN 5823	Corporate Restructuring
FIN 5833	International Financial Management
FIN 5853	Entrepreneurial Financial Management
FIN 5943	Financial Statement Analysis
FIN 6213	Derivatives Markets and Instruments
FIN 6223	Corporate Risk Management
FIN 6323	Financial Data Analytics
FIN 6903	Special Studies in Real Estate
FIN 6943	Finance Internship
FIN 6953	Independent Study
FIN 6973	Special Problems

#### D. Comprehensive Examination

All candidates must pass a comprehensive examination administered by the Graduate Program Committee in Finance.

Total Credit Hours 33

### Master of Science Degree in Finance – Real Estate Finance and Development Concentration

This concentration is designed to offer the opportunity for qualified graduate students to study finance at the graduate level with an emphasis in real estate finance and development. It assists students in preparing for real estate careers in the field of finance or for graduate study in real estate at the doctoral level.

Students choosing to concentrate in real estate finance must complete the 6 semester credit hours containing the M.S.F. foundations of knowledge courses, the 21 semester credit hours of required courses, and 6 semester credit hours of electives.

**A. 6 semester credit hours of foundations of knowledge courses:** 6

MBA 5113	Business Foundations
MBA 5133	Financial Accounting Concepts

**B. 21 semester credit hours of required courses:** 21

FIN 5023	Financial Management
FIN 5403	Real Estate Principles
FIN 5423	Real Estate Finance and Investment
FIN 5443	Real Estate Construction
FIN 5453	Real Estate Development
FIN 5633	Investment Theory and Problems
FIN 6313	Modeling of Financial Decision Making

**C. 6 semester credit hours of electives from the following set of courses or as approved by the Real Estate Finance and Development program executive director:** 6

FIN 5033	Advanced Topics in Financial Management
FIN 5723	Fixed Income Analysis
FIN 5733	Banking and the Financial Services Industry
FIN 5813	Corporate Valuation
FIN 5823	Corporate Restructuring
FIN 5833	International Financial Management
FIN 5853	Entrepreneurial Financial Management
FIN 5943	Financial Statement Analysis
FIN 6213	Derivatives Markets and Instruments
FIN 6223	Corporate Risk Management
FIN 6323	Financial Data Analytics
FIN 6903	Special Studies in Real Estate
FIN 6943	Finance Internship
FIN 6953	Independent Study
FIN 6973	Special Problems
MOT 5243	Essentials of Project and Program Management (Or any real estate related graduate course in ARC, CSM, PAD or URP as approved by the Real Estate Finance and Development program director.)

**D. Comprehensive Examination**

All candidates must pass a comprehensive examination administered by the Graduate Program Committee in Finance.

Total Credit Hours 33

## Doctor of Philosophy Degree in Finance

The College of Business offers opportunities for advanced study and research leading to the Doctor of Philosophy degree in Finance. The Ph.D. in Finance is awarded to candidates who have displayed an in-depth understanding of the subject matter and demonstrated the ability to make an original contribution to knowledge in their field of specialty.

The regulations for this degree comply with the general University regulations (refer to Student Policies, General Academic Regulations, and the Graduate Catalog, Doctoral Degree Regulations).

## Admission Requirements

Applicants must have a bachelor's degree from an accredited university. The Ph.D. Program Committee in the major areas will evaluate applicants to the Ph.D. program based on several factors, including academic achievement, standardized test scores, employment history, a personal statement, letters of recommendation, and possibly an interview. All applicants must submit the following material for evaluation:

- Official transcripts of all undergraduate and graduate coursework completed
- Graduate Management Admission Test (GMAT) scores or Graduate Record Examination (GRE) scores from a recent (no more than five years old) administration of the examination
- Three letters of recommendation from academic or professional sources familiar with the applicant's background
- A résumé or curriculum vitae and a statement of academic interests and goals
- International students must also submit a score of at least 60 (paper version) or 79 (internet version) on the Test of English as a Foreign Language (TOEFL). TOEFL scores may not be more than two years old.

Candidates who do not possess a master's degree in a business or business-related discipline with sufficient quantitative rigor are required to complete a program consisting of a minimum of 84 semester credit hours. The Ph.D. Program Committee for the major area discipline will determine a degree program for each candidate based upon that candidate's particular background. Candidates whose backgrounds are determined to be insufficient may be directed to take additional background or leveling courses (See sections A, B, and C of the Program of Study below) before proceeding to the program's required courses. Candidates who enter the program with the appropriate prior graduate coursework may be waived from some or all of the background requirements (sections A, B, and C).

Admission may include an appointment to a teaching assistantship, research assistantship, or research fellowship. The Ph.D. Program Committee, comprised of members selected from the graduate faculty, is responsible for advising students.

## Degree Requirements for Students that have not Obtained a Master's Degree

The degree requires a minimum of 84 semester credit hours beyond the bachelor's degree.

No course for which a grade of less than "C" was earned can be applied to the Doctoral degree program and no more than two courses with a grade of "C" may be applied to the program.

### Program of Study

**A. M.B.A. Core Courses** 9

This requirement may be met by a master's degree in business or business-related discipline. If a student does not have the appropriate graduate degree, a minimum of three courses (9 semester credit hours) outside of the student's major discipline must be taken from the following list:

MBA 5213	Management and Behavior in Organizations
MBA 5233	Accounting Analysis for Decision Making
MBA 5313	Marketing Management
MBA 5333	Financial Management

MBA 5413	Management Science with Data Analytics
MBA 5513	Managerial Economics
MBA 5613	Strategic Management and Policy

The Ph.D. Program Committee may consider the approval of transferring some or all of the credit hours of this requirement based on prior graduate coursework.

**B. Discipline background courses (5000-level courses or higher) in the major field or in a field directly related to (or relevant for) the major field (9 semester credit hours).** 9

The Ph.D. Program Committee may consider the approval of transferring up to 9 credit hours of this requirement based on prior graduate coursework.

**C. Required Course** 3

GBA 7103	Doctoral Teaching Seminar
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**D. Statistics and Research Methodology** 18

18 semester credit hours of 6000- or 7000-level courses in Statistics, Research Methods, Management Science, or associated Economics courses as approved by the Ph.D. Program Committee. Courses include but are not limited to:

ECO 6013	Microeconomic Theory
ECO 6103	Econometrics and Business Forecasting
ECO 6113	Mathematical Economics
GBA 7013	Research Methods I
GBA 7023	Research Methods II
MS 7033	Applications in Causal Structural Modeling
STA 6923	Advanced Statistical Learning/Data Mining
STA 7013	Advanced Applied Business Statistical Methods
STA 7023	Applied Linear Statistical Models
STA 7033	Multivariate Statistical Analysis

**E. Major Area Coursework** 21

1. PhD Level Courses (12 semester credit hours)

FIN 7013	Financial Theory
FIN 7023	Corporate Finance
FIN 7033	Valuation
FIN 7043	Empirical Finance
FIN 7113	International Financial Markets

2. Directed Electives (9 semester credit hours)

FIN 7053	Topics in Financial Research
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6 semester credit hours of graduate-level FIN courses as approved by the Ph.D. Program Committee.

**F. Free elective** 3

One course to be approved by the Ph.D. Program Committee. The course may be from within or outside the College of Business and must be at the graduate level.

**G. Doctoral Research** 9

**H. Doctoral Dissertation** 12

The initial Program of Study must be approved by the Ph.D. Program Committee and must be submitted to the Dean of the Graduate School for final approval.

Total Credit Hours 84

## Degree Requirements for Students that have Obtained a Master's Degree

The degree requires a minimum of 66 semester credit hours beyond the master's degree.

No course for which a grade of less than "C" was earned can be applied to the Doctoral degree program and no more than two courses with a grade of "C" may be applied to the program.

### Program of Study

**A. Required Course** 3

GBA 7103	Doctoral Teaching Seminar
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**B. Statistics and Research Methodology** 18

18 semester credit hours of 6000- or 7000-level courses in Statistics, Research Methods, Management Science, or associated Economics courses as approved by the Ph.D. Program Committee. Courses include but are not limited to:

ECO 6013	Microeconomic Theory
ECO 6103	Econometrics and Business Forecasting
ECO 6113	Mathematical Economics
GBA 7013	Research Methods I
GBA 7023	Research Methods II
MS 7033	Applications in Causal Structural Modeling
STA 6923	Advanced Statistical Learning/Data Mining
STA 7013	Advanced Applied Business Statistical Methods
STA 7023	Applied Linear Statistical Models
STA 7033	Multivariate Statistical Analysis

**C. Major Area Coursework** 21

1. PhD Level Courses (12 semester credit hours)

FIN 7013	Financial Theory
FIN 7023	Corporate Finance
FIN 7033	Valuation
FIN 7043	Empirical Finance
FIN 7113	International Financial Markets

2. Directed Electives (9 semester credit hours)

FIN 7053	Topics in Financial Research
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6 semester credit hours of graduate-level FIN courses as approved by the Ph.D. Program Committee.

**D. Free elective** 3

One course to be approved by the Ph.D. Program Committee. The course may be from within or outside the College of Business and must be at the graduate level.

**E. Doctoral Research** 9

This requirement is met by doctoral research coursework.

**F. Doctoral Dissertation** 12

The initial Program of Study must be approved by the Ph.D. Program Committee and must be submitted to the Dean of the Graduate School for final approval.

Total Credit Hours 66

## Advancement to Candidacy

Advancement to candidacy requires a student to complete University and program requirements and to pass a written qualifying examination following completion of course requirements in the candidate's major field of study. The examination is administered by the Ph.D. Program Committee. No more than two attempts to pass qualifying examinations

are allowed. Results of the written and oral examinations must be reported to the Ph.D. Program Committee, the Dean of the College, and the Dean of the Graduate School. Admission into the doctoral program does not guarantee advancement to candidacy.

## Dissertation

Candidates must demonstrate the ability to conduct independent research by completing and defending an original dissertation. The research topic is determined by the student in consultation with his or her supervising professor. A Dissertation Committee, selected by the student and supervising professor, guides and critiques the candidate's research. The completed dissertation must be formally presented to and approved by the Dissertation Committee.

Following an open presentation of the dissertation findings, the Dissertation Committee conducts a closed meeting to determine the adequacy of the research and any further requirements for completion of the dissertation. Results of the meeting must be reported to the Dean of the College and to the Dean of the Graduate School.

Awarding of the degree is based on the approval of the Dissertation Committee, approved by the Dean. The UTSA Dean of the Graduate School certifies the completion of all University-wide requirements.

## Graduate Certificate in Real Estate Finance and Development

The Graduate Certificate in Real Estate Finance and Development is a 12-semester-credit-hour graduate option that will benefit professionals in the real estate community who desire knowledge in real estate finance and development. The program is designed for students who have earned a bachelor's degree and wish to obtain a foundation for a career in real estate and development. It is also designed for those who hold a graduate degree but seek to obtain more education or specialization within the industry without committing to further graduate degrees. This certificate is also available to graduate students in Architecture, Urban and Regional Planning, or Public Administration who wish to gain related expertise in Real Estate Finance and Development.

To earn a Graduate Certificate in Real Estate Finance and Development, students must earn 12 semester credit hours as follows:

FIN 5403	Real Estate Principles <sup>1</sup>	3
FIN 5423	Real Estate Finance and Investment	3
FIN 5443	Real Estate Construction	3
FIN 5453	Real Estate Development	3
Total Credit Hours		12

Refer to the course descriptions for course prerequisites.

<sup>1</sup> If you are enrolled in the Graduate Certificate in Real Estate Finance and Development, the prerequisite for FIN 5403 is as follows: FIN 5013 or FIN 5023 with score of "B-" or higher or consent of program advisor.

Applicants who are currently enrolled in a graduate degree program at UTSA have already met University requirements for admission. However, applicants must also obtain written approval from the certificate program advisor for admission. With the exception of graduate students in Architecture, Urban Planning or Public Administration, all other applicants must have a minimum of one year of continuous work experience in the field of real estate or related discipline as approved in writing by the

program advisor. If the request is approved, this form will be signed by the Certificate Program Advisor and the Dean of the College or Director of the Center in which the certificate program is housed. A copy of this form will be sent to the Graduate Advisor of Record for the student's degree program, the department in which the applicant's program is housed, and the Graduate School.

Applicants who are not currently enrolled in a graduate degree program at UTSA will be required to apply for admission to UTSA as a special (non-degree-seeking) graduate student and to indicate their intent to seek admission into a certificate program. Applicants will be required to meet University admission requirements for special graduate students. If admitted as a special graduate student, the applicant must also obtain written approval from the certificate program advisor for admission. The form will be signed by the Certificate Program Advisor and the Dean of the College or Director of the Center in which the certificate program is housed. A copy of this form will be sent to the Graduate School.

If it is determined by the Certificate Program Advisor that an applicant requires prerequisite background courses to adequately prepare for the courses included in the certificate program, this will be noted in the applicant's file. The applicant will be notified that the prerequisite courses must be taken before enrolling in certificate program coursework.

Any applicant who is admitted into a certificate program without being currently enrolled in a graduate degree program is considered to be a special graduate student. If the applicant wishes to be admitted into a degree program, they will be required to apply to that program as a degree-seeking student. Admittance into or completion of a certificate program is not considered to be qualification for entry into a graduate degree program.

Applicants who are pursuing a certificate as special graduate students will not be eligible for financial aid.

Applicants who are admitted into a certificate program while also pursuing a graduate degree will be classified as degree-seeking students.

## Finance (FIN) Courses

### FIN 5013. Foundations of Finance for Entrepreneurs. (3-0) 3 Credit Hours.

The course develops strategies for managing the growth of a company through various phases of its life cycle. Topics include forecasting financial requirements, alternative sources of financing, management of operations and capital investment. Credit for FIN 5013 cannot be applied toward degree programs that require FIN 5023. Differential Tuition: \$387.

### FIN 5023. Financial Management. (3-0) 3 Credit Hours.

Prerequisites: MBA 5113 and MBA 5133, or their equivalents. The study of concepts related to the financial management of the firm. Topics include asset and liability management, capital investment analysis and valuation, risk and uncertainty, sources and costs of financial alternatives, corporate financial policy, and other corporate financial management topics. (Same as MBA 5333. Credit cannot be earned for both FIN 5023 and MBA 5333.) Differential Tuition: \$387.

### FIN 5033. Advanced Topics in Financial Management. (3-0) 3 Credit Hours.

Prerequisite: FIN 5023 or an equivalent. Focus on applications of financial management principles to business situations. Primary areas of focus include planning, current asset management, capital budgeting, mergers and acquisitions, risk management, corporate financial policies, and financing alternatives. (Formerly titled "Cases in Financial Management.") Differential Tuition: \$387.

**FIN 5403. Real Estate Principles. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or written consent of instructor. This course provides an overview of the discipline of real estate including both residential and commercial real estate. Topics may include the lease/buy decision, legal and industry aspects of the real estate sector, an overview of real estate capital markets, an introduction to debt and equity financing for real estate, principles of real estate investment decision-making, underwriting real estate transactions, and an introduction to public and private real estate. If enrolled in the Graduate Certificate in Real Estate Finance and Development, the prerequisite for this course is FIN 5023 with score of "B" or higher or consent of program advisor. Differential Tuition: \$387.

**FIN 5423. Real Estate Finance and Investment. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5403. This course builds upon the principles of FIN 5403 to further study investment and finance concepts applied to real estate lending, development and valuation of real property. Topics may include the primary and secondary mortgage markets, construction and development financing, lender loan analysis, an introduction to the legal aspects of real property lending, and an overview of real estate investment trusts. The course also examines the major concepts and analytical methods useful for making real estate investment and finance decisions relating to individual and portfolios of properties. It builds upon the modern corporate finance perspective and treats property as one particular class of capital assets. Differential Tuition: \$387.

**FIN 5443. Real Estate Construction. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5403. This course focuses on construction methods and management with application to real estate development, brokerage and lending. Topics include various construction techniques and processes, and standard metrics for commercial real estate products including industrial, office, multi-family and retail. Specific topics may include cost estimating, construction budgets, construction contracts, assembling and interpreting construction documents, project delivery, and overall management of the construction process. Differential Tuition: \$387.

**FIN 5453. Real Estate Development. (3-0) 3 Credit Hours.**

Prerequisites: FIN 5423 and FIN 5443. This course studies the real estate development process. Topics may include evaluation of real estate trends to project development needs, zoning and other legal considerations, site selection and evaluation, ownership and financing consideration, project scheduling, and evaluation of completed projects. Real estate professionals may be invited to present proposed or recently developed projects in San Antonio or other locations that may be used as case studies. Differential Tuition: \$387.

**FIN 5633. Investment Theory and Problems. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. A study of investment analysis and decision making with regard to financial instruments traded in organized markets. Topics include descriptions and functions of markets; impact of market structure on market efficiency and security pricing; valuation of stocks, bonds, and options; analysis of risk and return characteristics of investment alternatives; and selection and management of bond and stock portfolios. Differential Tuition: \$387.

**FIN 5723. Fixed Income Analysis. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. Develops a framework for the analysis of fixed income securities, valuation and risk-return characteristics of these instruments, and trading and portfolio strategies. Various data sources and financial software used to integrate theoretical concepts with practical applications. Differential Tuition: \$387.

**FIN 5733. Banking and the Financial Services Industry. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. The study of management practices applicable to banks and other firms operating in the financial services industry. Bank management practices using an asset/liability management approach are emphasized. Topics include major trends and developments having an impact on the financial services industry. Differential Tuition: \$387.

**FIN 5813. Corporate Valuation. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. The techniques and issues involved in making long-term investment decisions and valuing the financial claims on a company. Topics include the concepts of the cost of capital and financial structure, dividend policy, risk assessment and management, forecasting, and cash flow analysis. (Same as ACC 5913. Credit cannot be earned for both FIN 5813 and ACC 5913.) Differential Tuition: \$387.

**FIN 5823. Corporate Restructuring. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. Evaluation of corporate restructurings including mergers, acquisitions, divestitures, leveraged buyouts and recapitalizations are covered. Topics include ethics, strategy, due diligence, valuation, synergies, leverage, liquidity, control, accounting, deal structuring, post-merger integration and legal/regulatory considerations. Differential Tuition: \$387.

**FIN 5833. International Financial Management. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. The theory of business finance as applied to the operations of multinational firms. The determinants of exchange rates and the management of exchange rate risk are analyzed in terms of their impact on how a multinational corporation functions in the international setting. Topics include the financial analysis and control of foreign investment decisions, management of working capital, participation in the international capital markets, financing of international trade, and management of corporate risk. Differential Tuition: \$387.

**FIN 5853. Entrepreneurial Financial Management. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. The course focuses on the financial needs and conditions unique to the small firm that arise as it progresses from the development stage through the start-up, expansion, and harvesting stages. Topics include comparison of operating and managerial characteristics, valuation issues, and financial alternatives. (Formerly titled "Entrepreneurial Business Finance.") Differential Tuition: \$387.

**FIN 5943. Financial Statement Analysis. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5633 or an equivalent; and ACC 3033 or ACC 3053 or an equivalent. The processes by which the economic information contained within financial statements is interpreted and used to evaluate historical performance, project future performance, and valuation of the firm. Topics include hidden assets and liabilities, earnings quality, liquidity and cash flows. (Same as ACC 5943. Credit cannot be earned for both FIN 5943 and ACC 5943.) Differential Tuition: \$387.

**FIN 6213. Derivatives Markets and Instruments. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. An examination of derivative financial instruments such as options and futures and their potential role in controlling portfolio risk. Valuation and the risk and return characteristics of these instruments, as well as trading and portfolio strategies, will be developed. (Formerly titled "Speculative Markets and Securities.") Differential Tuition: \$387.

**FIN 6223. Corporate Risk Management. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. An understanding of derivative instruments and their application in corporate risk management is developed. The topics covered reflect the fact that management of risk in the corporate context is a source of competitive advantage and growth. Derivative instruments such as options, futures, and swaps are analyzed. The choice of different instruments and their properties in managing corporate risk is examined. Differential Tuition: \$387.

**FIN 6313. Modeling of Financial Decision Making. (3-0) 3 Credit Hours.**

Prerequisite: FIN 5023 or an equivalent. Computer models of financial problems commonly encountered in industry are developed. Topics include financial statement analysis, financial planning and forecasting, capital investment analysis, and financing decisions. Applications to investment analysis include security and options valuations, performance analysis, and portfolio management. Decision making under uncertainty is examined through various techniques, including simulation. Differential Tuition: \$387.

**FIN 6323. Financial Data Analytics. (3-0) 3 Credit Hours.**

Prerequisites: FIN 5023 and FIN 5633. This course explores how data analytics can be used to understand and solve some of the important financial decisions encountered by businesses. Large-scale financial and administrative data sets, and proprietary private sector data can greatly improve the way we measure, track, and describe financial activity. They can also enable novel ways to make financial decisions. The course gives students an introduction to financial applications using data analytics. Topics include: gauging investor sentiment, profit forecasting, corporate finance decision making, project management, default prediction, and personal finance. In the context of these topics, the course provides an introduction to basic statistical methods and data analysis techniques. The course has two principal learning objectives: 1) to introduce students to financial decision making, and how to understand and analyze quantitative data, and 2) to show students how practitioners use "big data" to tackle financial problems. The course also outlines some of the challenges in accessing and making use of these data. It is recommended that this course be taken towards the end of the degree program. Differential Tuition: \$387.

**FIN 6901. Special Studies in Real Estate. (1-0) 1 Credit Hour.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study on various real estate topics not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: \$129.

**FIN 6902. Special Studies in Real Estate. (2-0) 2 Credit Hours.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study on various real estate topics not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: \$258.

**FIN 6903. Special Studies in Real Estate. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study on various real estate topics not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: \$387.

**FIN 6943. Finance Internship. (0-0) 3 Credit Hours.**

Prerequisites: Graduate standing, 15 semester credit hours of graduate work, and consent of instructor. Internship must be approved in advance by the Internship Coordinator and the student's Graduate Advisor of Record. Cannot count as a finance elective toward the M.B.A. with a concentration in Finance. Supervised full- or part-time off-campus work experience and training in finance. Individual conferences and written reports required. Differential Tuition: \$387.

**FIN 6953. Independent Study. (0-0) 3 Credit Hours.**

Prerequisites: Graduate standing and permission in writing (form available) of the instructor and the student's Graduate Advisor of Record. Independent reading, research, discussion, and/or writing under the direction of a faculty member. For students needing specialized work not normally or not often available as part of the regular course offerings. May be repeated for credit, but not more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: \$387.

**FIN 6961. Comprehensive Examination. (0-0) 1 Credit Hour.**

Prerequisite: Approval of the appropriate Graduate Program Committee to take the Comprehensive Examination. Independent study course for the purpose of taking the Comprehensive Examination. May be repeated as many times as approved by the Graduate Program Committee. Enrollment is required each term in which the Comprehensive Examination is taken if no other courses are being taken that term. The grade report for the course is either "CR" (satisfactory performance on the Comprehensive Examination) or "NC" (unsatisfactory performance on the Comprehensive Examination). Differential Tuition: \$129.

**FIN 6971. Special Problems. (1-0) 1 Credit Hour.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: \$129.

**FIN 6973. Special Problems. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Problems courses may be repeated for credit when the topics vary, but not more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: \$387.

**FIN 6983. Master's Thesis. (0-0) 3 Credit Hours.**

Prerequisites: Permission of the Graduate Advisor of Record and thesis director. Thesis research and preparation. May be repeated for credit, but not more than 6 hours will apply to a Master's degree. Credit will be awarded upon completion of the thesis. Enrollment is required each term in which the thesis is in progress. Differential Tuition: \$387.

**FIN 7013. Financial Theory. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. The course covers financial theory, including considerations of financial decision making in an uncertain environment, introduction to utility theory; state-preference theory; and mean-variance choice theories. Considerations of market equilibrium, introduction to financial derivatives, and international finance will be covered, as well as empirical findings in finance. Differential Tuition: \$387.

**FIN 7023. Corporate Finance. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. The theory of financial management of the firm, including Miller and Modigliani propositions and their extensions; imperfect information and agency problems; and asymmetric information and signaling, will be considered. Corporate finance issues such as capital structure, dividend policy, corporate governance, and bankruptcy topics will be covered. Empirical research in corporate financial decisions will also be covered. Differential Tuition: \$387.

**FIN 7033. Valuation. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. The concepts of valuation are developed through such topics as asset pricing models and arbitrage methods. Development of concepts of value additivity, stochastic dominance, and state preference will be undertaken. Stochastic processes and stochastic calculus are developed for the pricing of options in continuous time. Other discrete time processes and valuation methods will also be covered. Differential Tuition: \$387.

**FIN 7043. Empirical Finance. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Theoretical concepts of asset pricing are presented, techniques for testing various hypotheses regarding asset pricing models, option pricing models, and fixed income models are examined. Market structure issues using event studies and time series applications are developed. Differential Tuition: \$387.

**FIN 7053. Topics in Financial Research. (0-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. This is a directed research course where the topics will vary. The student will undertake research under the instructor's supervision. Topics often include empirical analysis. The course may be repeated for up to 6 semester credit hours when topics vary. Differential Tuition: \$387.

**FIN 7063. Advanced Research in Finance. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. This is a research seminar course where the topics may vary. Topics envisaged include the following: advanced international financial management topics, the theory and management practices in financial intermediaries, advanced topics in real estate finance, and advanced topics for conducting empirical research in finance. The course may be repeated for credit when topics vary. Differential Tuition: \$387.

**FIN 7113. International Financial Markets. (3-0) 3 Credit Hours.**

Prerequisite: Consent of instructor. Techniques are demonstrated in how to conduct empirical research in international financial markets (Forex, stocks, bonds, commodities, and derivatives) with sophisticated econometrics and extensive data analysis. Topics include trading mechanisms, market efficiency, price discovery, arbitrage, transaction costs, portfolio management, and exchange policies. Differential Tuition: \$387.

**FIN 7211. Doctoral Research. (0-0) 1 Credit Hour.**

May be repeated for credit, but not more than 24 hours may be applied to the Doctoral degree. Differential Tuition: \$129.

**FIN 7212. Doctoral Research. (0-0) 2 Credit Hours.**

May be repeated for credit, but not more than 24 hours may be applied to the Doctoral degree. Differential Tuition: \$258.

**FIN 7213. Doctoral Research. (0-0) 3 Credit Hours.**

May be repeated for credit, but not more than 24 hours may be applied to the Doctoral degree. Differential Tuition: \$387.

**FIN 7214. Doctoral Research. (0-0) 4 Credit Hours.**

May be repeated for credit, but not more than 24 hours may be applied to the Doctoral degree. Differential Tuition: \$516.

**FIN 7215. Doctoral Research. (0-0) 5 Credit Hours.**

May be repeated for credit, but not more than 24 hours may be applied to the Doctoral degree. Differential Tuition: \$645.

**FIN 7216. Doctoral Research. (0-0) 6 Credit Hours.**

May be repeated for credit, but not more than 24 hours may be applied to the Doctoral degree. Differential Tuition: \$774.

**FIN 7311. Doctoral Dissertation. (0-0) 1 Credit Hour.**

Prerequisite: Admission to Candidacy for the Doctoral degree in Business Administration. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Differential Tuition: \$129.

**FIN 7312. Doctoral Dissertation. (0-0) 2 Credit Hours.**

Prerequisite: Admission to Candidacy for the Doctoral degree in Business Administration. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Differential Tuition: \$258.

**FIN 7313. Doctoral Dissertation. (0-0) 3 Credit Hours.**

Prerequisite: Admission to Candidacy for the Doctoral degree in Business Administration. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Differential Tuition: \$387.

**FIN 7314. Doctoral Dissertation. (0-0) 4 Credit Hours.**

Prerequisite: Admission to Candidacy for the Doctoral degree in Business Administration. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Differential Tuition: \$516.

**FIN 7315. Doctoral Dissertation. (0-0) 5 Credit Hours.**

Prerequisite: Admission to Candidacy for the Doctoral degree in Business Administration. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Differential Tuition: \$645.

**FIN 7316. Doctoral Dissertation. (0-0) 6 Credit Hours.**

Prerequisite: Admission to Candidacy for the Doctoral degree in Business Administration. May be repeated for credit, but not more than 12 hours may be applied to the Doctoral degree. Differential Tuition: \$774.