

of variance and experimental designs; completely randomized and complete block designs; latin square designs; split plot; arrangements of treatments; multiple comparisons; covariance analysis; multiple and curvilinear regression techniques; emphasis on social and behavioral sciences research problems.

7014 Experimental Statistics II (4) F Prereq.: EXST 7004 or equivalent. 3 hrs. lecture; 2 hrs. lab. Credit will be given for only one of the following: EXST 7013, 7014, 7015.

Multiple classification analysis of variance and covariance, individual degrees of freedom, factorial arrangement of treatments, and multiple regression; emphasis on science/laboratory research problems.

7015 Statistical Techniques II (4) F,S Prereq.: EXST 7005 or equivalent. 3 hrs. lecture; 2 hrs. lab. Credit will be given for only one of the following: EXST 7013, 7014, 7015.

Multiple classification analyses of variance and covariance, sampling designs, parameter estimation, multiple regression and correlation, tests of specific hypothesis, and factorial experiments; emphasis on field-oriented life sciences research problems.

7022 Statistical Aspects of Quantitative Genetics (3) V

Prereq.: EXST 7014 or equivalent and AGRI 2072 or equivalent. Statistical aspects of quantitative inheritance; partitioning of variance; covariance among relatives; theory of inbreeding; estimation and testing of genetic parameters; best linear prediction of genetic merit; mixed model application; selection theory.

7023 Advanced Topics in Statistical Genetics (3) V

Prereq.: EXST 4050 or equivalent and 7022. Topics not covered in other experimental statistics courses, such as best linear unbiased prediction of genetic merit; likelihood-based methods for genetic parameter estimation; analysis of selected populations; methods for quantitative genetic analysis of discrete data.

7024 Biological Population Statistics I (3) V Prereq.: EXST 7005 or equivalent.

Specialized sampling for estimation of plant and animal population parameters including density and abundance, survival, recruitment, space-use, and spatial pattern; methods used include quadrats, line transects, plotless sampling techniques, change-in-ratio estimators including capture-recapture and exploitation or catch-per-effort estimators, and home range models.

7025 Biological Population Statistics II (3) V Prereq.: EXST 7015 or equivalent.

Extensive development and application of statistical techniques to parameter estimation in population dynamics; principles of model building and role of model building in population management.

7031 Experimental Design (3) S Prereq.: EXST 7013 or 7014 or 7015 or equivalent. Comparison of designs, models, and analyses; emphasis on factorial experiments, complete and incomplete block designs, and confounding.

7032 Survey Design (3) V Prereq.: EXST 7013 or equivalent.

Comparison of experimental and quasi-experimental designs; repeated measures, covariance analysis, and confounding in factorial experiments; emphasis on social and behavioral science research problems.

7034 Regression Analysis (3) F Prereq.: EXST 7013 or 7014 or 7015 or equivalent; and knowledge of matrix algebra.

Fundamentals of regression analysis, stressing an understanding of underlying principles; response surfaces, variable selection techniques, and nonlinear regression.

7035 Applied Least-Squares (3) S Prereq.: EXST 7013 or 7014 or 7015 or equivalent.

Applications of least squares methods; usual constraints, no constraints, and means model constraints to unbalanced cross classified and nested data; emphasis on analysis of variance and covariance for fixed effects models.

7036 Categorical Data Analysis (3) S Prereq.: EXST 7013 or 7014 or 7015 or equivalent.

Statistical techniques used in analyzing data from discrete distributions; contingency tables, loglinear and logit models, logistic regression, and repeated measures for nominal and ordinal data; emphasis on computer analysis and interpretation.

7037 Multivariate Statistics (3) F Prereq.: EXST 7013 or 7014 or 7015 or equivalent; and knowledge of matrix algebra.

Comparison of multivariate techniques and analyses; emphasis on discriminant analysis, factor analysis and principal component analysis, canonical correlation, cluster analysis, and multivariate analysis of variance.

7038 Statistical Methods for Spatial Data (3) F Prereq.: EXST 7003, 7004, or 7005.

Overview of statistical methods for spatial data with emphasis on data analysis: fixed point spatial data, point pattern data, area data; topics include spatial correlation, variograms, kriging and spatial prediction; spatial sampling; and spatial experimental design; applications from other disciplines are encouraged, course work includes relevant statistical software and term project.

7039 Statistical Methods for Reliability and Survival Data (3) S Prereq.: EXST 7013 or 7014 or 7015.

Characteristics of lifetime data; non-parametric methods including Kaplan Meier estimation; lifetime parametric models, parametric methods for single distribution data; planning life test; system reliability concepts; failure time regression; accelerated testing.

7060 Probability and Statistics (3) F Prereq.: MATH 2057 or equivalent.

Probability, random variables, discrete and continuous distribution functions; expected values, moment generating functions; functions of random variables.

7061 Statistical Theory (3) S Prereq.: EXST 7060 or equivalent.

Point estimation; hypothesis testing; interval estimation; large sample theory; new developments in statistical inference.

7062 Advanced Topics in Statistical Theory (3) V Prereq.: EXST 7061. May be repeated for credit when topics vary.

Topics of current interest; emphasis on theoretical development of statistical methodology.

7083 Practicum in Statistical Consulting I (2) Su Prereq.: EXST 7013 or 7014 or 7015, and permission of instructor. 4 hrs. independent study. Pass-fail grading.

Supervised application of statistical techniques to research problems; readings, oral presentations, and discussions on statistical consulting; problem-solving; mock-consulting sessions; participation in real-life statistical consulting sessions under faculty supervision.

7084 Practicum in Statistical Consulting II (2) F,S,Su

Prereq.: EXST 7083 and permission of instructor. 4 hrs. independent study. Pass-fail grading. May be taken for a max. of 6 sem. hrs. credit.

Primary responsibility for statistical consulting projects under the supervision of graduate faculty.

7085 Special Problem in Statistics (1-3) F,S,Su Prereq.: permission of department. Pass-fail grading. A technical paper on an advanced topic in statistics is required.

Development of a topic in advanced statistics under faculty supervision.

7086 Advanced Seminar in Statistics (1) F,S,Su Prereq.: consent of instructor. May be repeated for credit when topics vary. Pass-fail grading.

Develop and present a 50-minute seminar on an advanced topic in statistics as a part of the department's seminar series.

7087 Advanced Topics in Statistics (1-3) V Prereq.: consent of instructor. May be repeated for credit when topics vary.

Lectures on advanced topics in statistics not covered in other experimental statistics courses.

7151 Bayesian Data Analysis (3) V Prereq.: EXST 7013 or 7014 or 7015 and EXST 7060; or consent of department head.

Introduction to Bayesian statistical methods and their application in fields such as agriculture, biology, engineering, and medicine; topics include non-informative, conjugate and elicited priors; posterior development; common single and multiple parameter models such as binomial, normal, Poisson, and exponential; hierarchical models; hypothesis testing and credible sets; posterior simulation via Markov Chain Monte Carlo; and performance of Bayesian procedures.

7999 Independent Study (1-3) F,S,Su Prereq.: Permission of instructor. May be taken for a max. of 9 sem. hrs. of credit when topics vary.

Independent study under the guidance of graduate faculty.

8000 Thesis Research (1-12 per sem.) "S"/"U" grading.

FILM & MEDIA ARTS • FMA

2001 Introduction to Film and Media Arts (3) Study of film, television, and video.

3001 Special Topics in the Film and Media Arts (3) May be taken for a max. of 6 hrs. of credit when topics vary.

Selected topics relevant to the study of the film and media arts.

4001 Advanced Topics in Film and Media Arts (3) May be taken for a max. of 6 hrs. of credit when topics vary.

Advanced topics relevant to the study of film and media arts.

FINANCE • FIN

In the Department of Finance, the second digit of the course number denotes the subject area of the course, as follows: 2—business law; 3—real estate; 4—risk and insurance; 6—finance (capital markets and financial institutions); 7—finance (financial management); 8—finance (investment analysis/portfolio theory); 9—general courses. Prerequisites for any finance course may be waived in exceptional cases with consent of the instructor and approval of the department chair.

3205 Mineral Rights (3) Prereq.: FIN 3355. Law of mineral rights; emphasis on Louisiana oil and gas law; leases, royalty interests, title search, unitization, and pooling; mineral law of other states and of hard materials.

3351 Principles of Real Estate (3) Prereq.: BLAW 3201 or FIN 3715.

Purchasing, owning, and operating real estate relative to interest in realty, liens, contracts, deeds, titles, leases, brokerage, management.

3352 Real Estate Valuation and Investment (3) Prereq.: FIN 3351 or 3715, or equivalent.

Principles of valuation applied to single-family and income-producing real property; techniques for making investment decisions in alternative types of real property; cash flow analysis considering income tax effects, financial leverage, risk-return trade-offs, and alternative methods of disposition.

3353 Real Estate Finance (3) Prereq.: FIN 3351 or 3715 or equivalent.

Real estate financing decisions for residential and income-producing properties; risk-return analysis for varying conditions of financial leverage; decision making related to pricing, alternative financing methods, refinancing, mortgage portfolio management; financing methods; government involvement in mortgage market and housing finance.

3354 Topics in Real Estate (3) Prereq.: FIN 3352 or 3353 or consent of instructor. Topics vary.

3355 Real Property Law (3) Prereq.: BLAW 3201.

Rights and obligations that attach to various types of ownership of immovable property both in Louisiana and Anglo-American jurisdictions.

3440 Risk and Insurance (3) Prereq.: BLAW 3201.

Nature of nonspeculative risks and possible alternative methods of treating them; specific application of these methods to personal and business risks arising from life, health, property, and liability contingencies; influence of public policy on risk treatment.

3441 Life and Health Insurance (3) Prereq.: FIN 3440.

Analysis of insurance protecting against economic loss caused by termination of earning capacity through premature death, disability, or old age; derivation of premiums, reserves, benefits; legal aspects; operational features; use of contracts and provisions; disability income protection.

3442 Property and Liability Insurance (3) Prereq.: FIN 3440.

Property and liability risks; insurance coverages available to meet these risks; basic insurance principles that apply in various property and liability insurance contracts; functional aspects of insurance company operations.

3460 Risk Management (3) Prereq.: FIN 3715.

Risk management from the business manager's viewpoint; insurance and financial market methods of pooling and managing risk; identification and evaluation of risk; hedging, self insurance, re-contracting and organizational design.

3632 Bank Administration (3) Prereq.: FIN 3715.

For students interested in commercial banking careers or in the role of banks within the American enterprise system.

Economic role and evolution of banks; structure of banking;

lending and investment techniques; bank organization and regulation; asset and liability management; credit risk management; bank performance analysis.

3636 Financial Markets and Institutions (3) *Prereq.: FIN 3715 or equivalent.* Characteristics and functions of financial markets and institutions; process of financial intermediation and allocation of financial resources; analysis of current developments in financial institutions and in money and capital markets; factors in interest rate determination; management of credit risk, interest rate risk, and operating risk.

3715 Business Finance (3) *Prereq.: ECON 2000 and 2010, or 2030; and ACCT 2000 or 2001. Also offered as ECON 3715.* Finance function within the business enterprise; techniques of financial management, concepts of capital structure and dividend policy, working capital management, capital budgeting, institutional and international environment of the firm.

3717 Advanced Business Finance (3) *Prereq.: FIN 3715.* Material presented in real-world cases. Hands on applications of financial tools introduced in FIN 3715; financial analysis, forecasting, capital budgeting, and business evaluation.

3718 Multinational Managerial Finance (3) *Prereq.: FIN 3715.* Multinational financial management; nature of international finance system; financing, investment, and risk management of the multinational corporation.

3826 Investments (3) *Prereq.: FIN 3715. Open only to finance majors; open to others with permission of the department.* Characteristics and valuation of common stocks, bonds, options, function and efficiency of U.S. securities markets; theory and practice of portfolio selection.

3840 Fixed Income Securities (3) *Prereq.: FIN 3826.* Mechanics of fixed-income markets and securities; valuation of fixed income securities and contingent claims; interest rate risk, term structure, product fundamentals, and bond portfolio strategies.

3845 Student Managed Investment Fund (3) *Prereq.: FIN 3715 or equivalent and permission of instructor. Course may be repeated for a max. of 9 sem. hrs. of credit.* Analysis of equity investment opportunities in conjunction with the management of the Student Managed Investment Fund; emphasis on valuation techniques and fundamental analysis; operation of investment reporting systems.

3900 Directed Study and Research (1-6) *Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Research under direction of faculty member; written proposal must be approved by faculty member and department chair prior to registration.*

3910 Topics in Finance (1-3) *Prereq.: FIN 3715 and 3826, or consent of instructor. May be taken for a max. of 6 sem. hrs. of credit when topics vary.* Topics of current interest.

4240 Cyberlaw and Intellectual Property (3) *Prereq.: BLAW 3201 or BADM 7140, and consent of instructor.* Fundamentals of patent, trademark and copyright law; legal principles applied to the regulation of the Internet and electronic commerce, including intellectual property, torts, contracts, constitutional principles, and crimes.

4440 Group Insurance and Pensions (3) *Prereq.: FIN 3440.* Life and health insurance in various areas involving mortality and morbidity contingencies; types of health risk bearers and contracts offered; employee benefit plans with emphasis on the private pension function, including contractual arrangements, benefit formulas, and approaches to financing.

4828 Security Analysis and Portfolio Management (3) *Prereq.: FIN 3826 or equivalent.* Security selection and portfolio diversification in an efficient market; portfolio theory and management; portfolio building and selection; portfolio performance evaluations.

4830 Analysis of Corporate Financial Statements (3) *Prereq.: FIN 3715 or equivalent.* Evaluation of financial statements; emphasis on their use in credit analysis and in evaluation of security risks and returns; recent research in accounting and finance; predictive ability of financial statement data.

4850 Financial Derivatives (3) *Prereq.: FIN 3636, 3717, or 3826.* Options, forwards, futures, swaps, and other derivative instruments; principles of pricing, valuation models, trading strategies, and managing risk in domestic and global financial markets.

7300 Seminar in Real Estate (3) Questions facing participants in the real estate market, including equity investors, lenders, tenants, and government; purchasing, owning, and operating real estate relative to interest in realty contracts; deeds, title, leases, brokerage, and management.

7310 Real Estate Financial Decisions (3) Questions concerning real estate finance and valuation; risk-return trade-offs under varying conditions of financial leverage; refinancing; selecting between alternative financing methods;

mortgage design, sale-leaseback, construction lending, secondary mortgage markets, and the pricing of financing instruments.

7320 Advanced Topics in Real Estate (3) *Prereq.: FIN 7300 or 7310 or consent of instructor. May be taken for a max. of 6 hrs. of credit if topics vary.*

7350 Theory of Real Estate Markets (3) *Prereq.: FIN 7750. Primarily for doctoral students.* Emphasis on theoretical treatment of real estate equity and mortgage markets; real estate as a security; pricing of fixed- and adjustable-rate mortgages; secondary mortgage markets and the securitization of mortgages; development of derivative securities; models of housing markets.

7400 Financial Risk Management (3) *Prereq.: BADM 7090 or equivalent.* Risk management of corporations, financial institutions, governments, and non-profit organizations; characteristics of financial contracts and markets and applications of these contracts to risk management problems; the value of risk management, measuring exposures, financial contracts for managing risk, the enterprise risk management industry, and the accounting and regulatory framework; market and credit risks are the primary focus, but some attention is also given to operational and other sources of risk.

7520 Seminar in Financial Research Methods (3) *Primarily for doctoral students.* Financial economics; empirical behavior of financial markets; topics including trading rules and the efficient market hypothesis; market microstructure; event studies.

7550 Theory of Finance (3) *Prereq.: ECON 7610 or equivalent.* Theory of choice under certainty and uncertainty; time-state preference models of risk allocation; mean-variance asset pricing models; arbitrage pricing models; option pricing models; discrete and continuous time models.

7585 Advanced Topics in Financial Economics (3) *Prereq.: consent of instructor. May be taken for a max. of 9 sem. hrs. of credit. Also offered as ECON 7585.* Specific areas in finance and financial economics; emphasis on rigorous empirical methodologies and theory.

7632 Seminar in Commercial Banking (3) Commercial banking theory and history, quantitative techniques applied to bank asset and liability management, banking structure, markets and competition, capital adequacy and profitability.

7633 Financial Markets (3) *Prereq.: BADM 7020 and 7080.* Theoretical and empirical exposition of financial markets and institutions; their role in the economy; determination of the general level, risk structure, and the transaction structure of security returns; emphasis on U.S. financial markets.

7650 Seminar in Financial Markets and Intermediaries (3) *Prereq.: FIN 7550. Primarily for doctoral students.* Markets and intermediaries as alternative institutional mechanisms for structuring financial transactions; transaction services provided by these institutions; benefits and costs of these transaction services as determinants of the structure and extent of the financial sector.

7710 Public Financial Management (3) *Cross-listed as PADM 7710.*

7718 Multinational Financial Management (3) *Prereq.: BADM 7090 or equivalent.* Cross border investment, investment analysis, capital planning, foreign currency exposure, and cash management; concepts of political risk assessment; techniques in transactional trade; alternative financial sources; issues in international financial controls.

7719 Advanced Financial Management (3) *Prereq.: BADM 7090.* Theory of business finance and evaluation of its usefulness to financial managers; capital expenditure, capital structure, and dividend decisions; legitimacy of alternative decision criteria; implications of uncertainty and imperfect capital markets on firm financial decisions.

7720 Topics in Business Finance (3) *Prereq.: BADM 7090 or equivalent.* Detailed treatment of topics not covered in depth in BADM 7090 or FIN 7719; prospectus usually available before registration.

7740 Venture Capital and Investment Banking (3) *Prereq.: BADM 7090 or equivalent.* The role of venture capitalists and investment banks in financing, advising, and influencing companies through the initial public offering; the structure of venture capital funds; staging of investments; compensation; valuation; interactions between venture capital and economic activity, the legal environment, and social and ethical norms.

7750 Seminar in Corporate Finance (3) *Prereq.: FIN 7550. Primarily for doctoral students.* Theory of choice under certainty and uncertainty; investment and financing decisions of the firm; the agency problem and agency costs; capital structure and dividend models related to corporate control.

7826 Investment Analysis and Portfolio Theory (3) *Prereq.: BADM 7020 and 7030.* Institutional elements of capital markets, mechanics of securities trading; analytic techniques for evaluating investment management; behavior of security prices, efficient diversification, techniques for measuring performance of securities and portfolios, security valuation, portfolio selection.

7845 Student Managed Investment Fund (3) *Prereq.: BADM 7090 or equivalent and permission of instructor. Course may be repeated for max. of 9 sem. hrs. of credit.* Management and operation of the Student Managed Investment Fund; calculation and monitoring of performance in an institutional equity portfolio; establishment of investment objectives, including asset allocation and selection, and assessment and management of risk; settlement, accounting, and reporting of results.

7849 Normative Portfolio Analysis Theory (3) *Prereq.: FIN 7719 and FIN 7550 or equivalent.* Theoretical and practical problems of normative portfolio selection techniques and analysis; positive implications of normative models; their contribution to understanding operation of capital markets and market participants.

7850 Seminar in Investments (3) *Prereq.: FIN 7550. Primarily for doctoral students.* Speculative price as a stochastic process; information revelation in and through speculative price; normative and positive models of investment theory; applications of contingent-claims/derivative securities pricing; theory and empiricism of fixed income securities.

7855 Seminar in Options, Futures, and Other Derivatives (3) *Prereq.: FIN 7826 and ECON 7610 or equivalent; consent of instructor; mathematical maturity required.* Arbitrage and equilibrium models of derivative pricing; models derived via continuous time Ito processes; binomial, finite difference, Monte Carlo and other numerical approaches; review of mathematical statistics, stochastic processes, and Ito calculus.

7900 Individual Study in Finance (3) *Masters and doctoral students may take the course for credit 3 and 6 times, respectively. For students who wish in-depth study of a selected finance problem. Proposal outlining nature and objectives of a research project must be approved by department faculty prior to registration; written report of semester's activities and findings required for credit.*

7950 Seminar in Research (1) *Required of all doctoral students in business administration concentrating in finance during each semester of full-time residence; only 3 sem. hrs. may be applied toward the degree.* Advanced research in finance; current research of doctoral candidates, faculty, and invited guests.

8000 Thesis Research (1-12 per sem.) "S"/"U" grading.

8900 Pre-dissertation Research (1-9) *May be repeated for credit. Pass-fail grading.*

9000 Dissertation Research (1-12 per sem.) "S"/"U" grading.

FOOD SCIENCE • FDSC

1049 Science of Foods (2) F Concepts and principles related to selection, preparation, processing, preservation, distribution, and use of foods.

2000 Fundamentals of Food Science (3) S *Prereq.: BIOL 1201 and CHEM 1201 or permission of instructor.* Introduction to scientific principles in chemistry of food constituents, new product development, food preservation, processing, packaging, and safety.

3000 Food Safety (3) F *Prereq.: BIOL 1201 and CHEM 1201 or permission of instructor.* Basic concepts of food safety including: introduction into food safety; extensive examination of causative agents responsible for food borne illness; and food borne illness case studies.

3900 Food Science Research (1-3) *Prereq.: permission of department. May be taken for a max. of 6 sem. hrs. of credit.* Student outlines and executes project and prepares a written report; problems related to processing, quality control, safety, and nutritional evaluation of food stuffs.

3999 Food Science and Technology Seminar (1) F,S *Prereq.: permission of department. May be taken for a max. of 2 sem. hrs. credit.* Scientific seminar preparation and presentations on selected topics in food science and technology.

4005 Food Engineering Systems (3) S-O *Prereq.: PHYS 2001 and MATH 1441 or equivalent. 2 hrs. lecture; 3 hrs. lab.* Application of engineering principles to various unit operations in food processing.