



## FINANCE MAJOR

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Finance major is offered through the John E. Simon Department of Accounting, Business, Economics, and Finance. The courses in finance major prepare students to launch exciting professional careers in both corporate finance (e.g., Financial Analyst, Budget Analyst, and Credit Analyst) and investments (e.g., Equity Analyst, Research Analyst, and Research Associate). Because of the emphasis on building practical skills, the coursework enables students to work in other quantitative fields, such as business analysis, etc. Throughout the 4-year program, among other things, students learn how to price an asset (such as stocks, bonds, options, and futures), how to manage investments, how to evaluate revenue-generating projects and raise capital to finance those projects.

The finance major can be an excellent choice to combine with other majors, such as accounting or business administration, as well as minors in related fields, such as economics or mathematics.

Majors must have at least a grade of C in all finance courses (only courses with FIN as the prefix) or the major as well as maintain a grade point average of 2.00 or higher to complete the requirements of the major.

No more than 40 credit hours in finance major courses may be counted toward the 122 credit hours required for graduation.

You can find the course descriptions for all courses required for this major by clicking on the following links:

- [Accounting Course Descriptions](#)
- [Business Course Descriptions](#)
- [Economics Course Descriptions](#)
- [Finance Course Descriptions](#)
- [Math Course Descriptions](#)
- [Speech Course Descriptions](#)

**Major: FINANCE**

Student's Last Name

First Name

Middle Initial

Advisor

Date Major Declared

Course #	Title of Course	Hours Required	Semester Completed	Grade
<b>Required Core Business Courses (36-38 hrs):</b>				
ACC 215	Principles of Financial Accounting	3		
ACC 216	Principles of Managerial Accounting	3		
BUS 210	Spreadsheet Application in Business	3		
BUS 220	Fundamentals of Management	3		
BUS 250	Principles of Marketing	3		
ECN 211	Principles of Macroeconomics	3		
ECN 212	Principles of Microeconomics	3		
ECN 355	Research Methods for Business and Social Sciences Applications	3		
FIN 318	Corporate Financial Management	3		
MAT 114	Elementary Statistics	3		
MAT 122	Business Calculus	3		
or MAT 124	Calculus I	5		
SPE 101	Introduction to Speech Communication	3		
<b>Finance Major Courses (21 hrs):</b>				
ECN 325	Money, Banking and Financial Markets	3		
ECN 331	Intermediate Macroeconomics Theory	3		
ECN 337	Open-Economy Macroeconomics	3		
FIN 351	Portfolio Management	3		
FIN 328	Managerial Finance	3		
FIN 350	Investments	3		
FIN 354	Options & Futures	3		
<b>Major Elective: One from the following list (3 hrs):</b>				
ACC 312	Intermediate Accounting I	3		
ACC 419	Federal Income Tax II	3		
ECN 310	International Trade & Finance	3		
ECN 360	Mathematical Economics	3		
ECN 367	Econometrics	3		
MAT 312	Differential Equations	3		
MAT 313	Mathematical Probability and Statistics	3		
<b>TOTAL HOURS FOR MAJOR</b>		<b>60-62 hrs.</b>		

If any substitutions or waivers of requirements are allowed, please list below and initial.

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## ACC – Accounting

**ACC 215 Principles of Financial Accounting** (3 hrs.) This course emphasizes principles and procedures involved in the accounting process. An understanding and use of basic accounting data are stressed. The major topics covered include the basic accounting framework, financial statements, current and long-term assets and liabilities and corporate accounting. Offered every semester.

**ACC 216 Principles of Managerial Accounting** (3 hrs.) This course emphasizes principles and techniques used in the managerial accounting process. An understanding of cost behavior, cost determination and budgeting are stressed. Offered every semester. Prerequisites: ACC 215.

**ACC 307 Government and Non-Profit Accounting** (3 hrs.) This course deals with financial accounting and reporting concepts, standards and procedures applicable to (1) state and local government; and (2) non-profit and governmental universities, hospitals and other non-profit organizations. Financial management and accountability considerations peculiar to government and non-profit organizations are emphasized throughout the course. Offered every other fall semester, alternating with ACC 308. Prerequisites: ACC 216.

**ACC 308 Managerial and Cost Accounting** (3 hrs.) A course designed to acquaint students, whether or not they plan to continue accounting studies, with the uses of accounting for business operation and management. The content of the course emphasizes the accounting process in manufacturing organizations. Topics include cost allocation and control, cost systems, budgeting, variance analysis, break-even analysis and problems of alternative choice. Offered every other fall semester, alternating with ACC 307. Prerequisites: ACC 216.

**ACC 312 Intermediate Accounting I** (3 hrs.) A study of the nature, content and interpretation of corporate financial statements. Major topics covered include the conceptual framework of financial accounting, current assets, plant assets, and intangible assets. Offered every fall semester. Prerequisites: ACC 216 or permission of instructor.

**ACC 319 Federal Income Tax I** (3 hrs.) A study of federal income tax laws and their current application to individuals and partnerships, with emphasis on the individual income taxes. Offered every fall semester. Prerequisite: ACC 216.

**ACC 320 Accounting Information Systems** (3 hrs.) This course explores effective and efficient accounting information systems from a user's perspective. Specific coverage is devoted to the areas where the accountant interfaces with the system analyst. Offered every fall semester. Co-requisite: BUS 210.

**ACC 322 Intermediate Accounting II** (3 hrs.) This is a continuation of Intermediate Accounting I. Major topics include current and long-term liabilities (including bonds, pensions, and leases), corporate capital, with special attention to paid-in capital and retained earnings; investments, earnings per share, the statement of cash flows, and full disclosure issues. Offered every spring semester. Prerequisites: ACC 312.

**ACC 418 Advanced Accounting** (3 hrs.) This course is designed to study specialized accounting problems including partnerships, consolidated financial statements, international operations and segment reporting. Offered every spring semester. Prerequisites: ACC 322 or permission of instructor.

**ACC 419 Federal Income Tax II** (3 hrs.) This tax course focuses on corporations, partnerships, trusts and estates. The course addresses C Corporations, S Corporations, Flow-through Entities and partnership capitalization issues. The course utilizes research cases based on revenue rulings to further enhance the learning process. Offered every spring semester. Prerequisites: ACC 319.

**ACC 421 Auditing** (3 hrs.) This is a study of auditing standards, professional ethics, legal responsibility, various types of audits and their uses. A detailed examination of auditing procedures and techniques is made. Case studies are used in the course. Offered every spring semester. Prerequisites: ACC 322.

## BUS – Business

**BUS 131 Intro to Business** (3 hrs.) This introductory course will briefly explore the critical topics of the business environment. Beginning with business trends in the global environment, the course moves through small business ownership and how economics affects business, working with and understanding employees, fundamental marketing, human resource management, and managing financial resources. This is an excellent course to explore the subject matter of the general business world for those who have not done any business courses before and would like to get an introduction to the subject matter or to pursue further studies in the various fields in business administration. This course does not count as an elective in the business administration department and is meant for non-business major students interested in exploring the basics of the major. It will count for credit towards graduation.

**BUS 205 Introduction to Sports Management** (3 hrs.) This course is an introduction to the contemporary world of sport business. The learning objectives of the course will be addressed in three discrete modules over the course of the semester. The first module introduces basic sport management concepts. In this module, students will learn what constitutes managing a sport, how to develop a professional perspective in the sport industry, and basic management concepts and practices in sport organizations. The second module dives deep into various segments of sport management. In this module, students will explore topics specific to sport participation, interscholastic athletics, intercollegiate athletics, professional sport, international sport, and new developments in the sport industry. The final module relates specific to sport business and management concepts. Using the sports industry perspective, many business principles will be covered, such as: marketing, strategic management, communication, sales and revenue generation, facility management and finance.

**BUS 210 Spreadsheet Application in Business** (3 hrs.) This course is designed to enable students to use Microsoft Excel to perform important data analysis and presentation for various business problems and thereby provide essential decision-making support to management. In the first few weeks of the course, students work on developing a functional understanding of Microsoft Excel by learning its basic capabilities for data analysis and presentation. Then the course exposes the students to more advanced data analysis tools in Excel such as Scenario Manager, Data Tables, Solver, etc. for a more complicated and comprehensive analysis of business problems. In the later part of the course, students learn to use Excel for important statistical analysis including descriptive statistics, regression analysis, randomized experiments, forecasting, etc.

**BUS 220 Fundamentals of Management** (3 hrs.) An introduction to the basic concepts of management and organization. A review of the historical development of management practices will precede the core areas of study, which include the processes of decision making and planning in organizations, concepts of organization design, measurement and control of organizational performance, and leadership and the direction of human activity. Case studies of actual organizations are used.

**BUS 221 Organizational Behavior** (3 hrs.) This course explores management practice in the workplace with an emphasis on the dynamics of individual and group behavior. Topics include organizational structure and design, managing in a global context, conflict in organizations, organizational culture, decision-making, group dynamics, and other contemporary issues in organizational behavior.

**BUS 223 Business Law** (3 hrs.) This course is designed to provide an understanding of rights, duties, and liabilities in business transactions. Topics covered include contracts, agency and employment, negotiable instruments, personal property, bailments, sales of goods, partnerships, corporations, real property and leases, insurance, security devices, bankruptcy, trusts, estates, and government agencies and regulations.

**BUS 250 Principles of Marketing** (3 hrs.) A survey of current concepts in marketing theory. Topics include the theory of exchange; product characteristics; channels of distribution; sales, promotion, and price policy; marketing research; and the "marketing concept."

**BUS 305 Industrial-Organizational Psychology** (3 hrs.) This course applies the principles of psychology to work and other organizational settings. It presents both traditional industrial applications (personnel selection, job design, training, and performance evaluation), more recent perspectives on organizational performance (group dynamics, romance in the workplace, leadership, problem solving, organizational design, organizational development, and organizational culture and socialization), recent work in ergonomics and engineering psychology, and consumer psychology. Offered occasionally. Prerequisites: PSY 112 or 113.

**BUS 315 Sport Promotion and Sales Management** (3 hrs.) This course is designed to give the student hands on experience with a professional or non-profit sports enterprise. Working with local and regional organizations, the students will develop a marketing or promotion plan or design and perform a research project. This is the capstone course for the Sports Management major. Prerequisites: ACC215, BUS 205, BUS220, and BUS250.

**BUS 322 Cross Cultural Management** (3 hrs.) This course explores ethnic, behavioral, demographic, and religious dimensions to show how cultural factors affect behavior in the US workplace and how cultural behavior affects managerial action. Within a guiding framework of contemporary management practice, particular emphasis is focused on dispelling stereotypical thinking, and identifying the interpersonal skills needed to be a successful and effective manager with a diverse workgroup. Prerequisite: BUS 220.

**BUS 325 Entrepreneurship** (3 hrs.) This course is designed to develop an understanding of the environment within which small business concerns function. The practical application of business theory will be stressed. Topics include areas of management, advertising, marketing research, customer credit, financing, and personnel. Prerequisites: ACC 215 and BUS 250.

**BUS 326 Human Resource Management** (3 hrs.) A review of the human resource management function in which the practices and underlying theory of the procurement, development, and the maintenance of the individual in an organization will be examined. The basic issues of employee satisfaction and employee productivity will be analyzed throughout the course. Cases will be utilized to explore the various concepts introduced. Prerequisites: BUS 220 or BUS 221.

**BUS 327 Operations Management** (3 hrs.) This course covers basic concepts, practices, and current themes of Operations Management in both production and service industries. Students learn how to make operations decisions such as those relating to capacity planning, inventory management, quality control, facility layout, and product design. Analytical and qualitative tools, as well as key metrics, are applied to real life and realistic problems. The class also emphasizes the interrelatedness and complexity of real-life operations and their place in strategic, global, and ethical contexts. Prerequisites: MAT 114, BUS 210.

**BUS 330 Advertising and Brand Promotion** (3 hrs.) This course examines the role of advertising in marketing and in society. Topics include communication theory, deception, regulation, the advertising campaign, message tactics, and media tactics. Prerequisites: BUS 250.

**BUS 334 Consumer Behavior** (3 hrs.) A detailed study of the forces that shape the process of consumer motivation and decision-making. Topics include theoretical models of consumer choice processes and the influences of culture, lifestyle, and demographics on the consumer. Marketing strategy formulation will be stressed. Prerequisites: BUS 250.

**BUS 337 Labor Relations** (3 hrs.) This course will examine the evolution of the labor movement since the mid-nineteenth century, particularly labor-management relationships. Topics covered will include: labor laws and other legal influences, union organizing, collective bargaining negotiations, administration of contracts, grievance processing, organizations' and unions' adaptation to the changing environment of the 1990s and the future. Prerequisites: BUS 220.

**BUS 345 Digital Marketing** (3 hrs.) This course is designed to provide knowledge and awareness of the digital marketing techniques needed for successful marketing campaigns in a digital economy. In addition, the course will also provide the students with a theoretical understanding of the internet marketplace that is necessary to adapt to its many changes, while also equipping them with the skills they'll need to become a successful digital marketer. Prerequisite: BUS 250. Course offered every year in fall.

**BUS 353 Non-Profit Management** (3 hrs.) This course emphasizes a research experience that produces a business plan for a new nonprofit organization. Students will work in small groups and choose projects from various nonprofit ventures designed by the instructor that will produce workable operating plans to manage such nonprofit organizations. Students should expect a high level of interaction with the instructor, their fellow group members, and other students in the class as research results and methods are shared and analyzed. Classwork on the project will be supplemented with appropriate lecture and discussion topics relevant to understanding nonprofit organizations and how to manage them. Additionally, this course is meant to provide a capstone experience for the Nonprofit Management Certificate. This course also qualifies as an elective in the ABEF department and as an elective for the Management Concentration of the Business Administration degree. Prerequisites: BUS 220 or BUS 221 or BUS 250.

**BUS 360 Decision Making** (3 hrs.) This course studies how human beings make decisions, and how those decisions can be predicted, modeled, and improved. It covers a selection of behavioral and quantitative tools and perspectives, such as utility theory, risk preferences, decision trees, influence diagrams, value of perfect and imperfect information, linear programming, sensitivity analysis, what-if and scenario analysis, multicriteria decision making, and group decision making. This course can fulfill the analytical requirement of the Business major (as an alternative to BUS 327 and ECN 351).

**BUS 364 Introduction to Qualitative Research** (3 hrs.) This course explores the foundations and methodology of naturalistic inquiry. Topics include an examination of contemporary qualitative research paradigms, methodology, personal interviewing, interview guides and question construction, performing observations, focus groups, protection of subjects and privacy, and coding and analysis of data. Students will perform interviews and observations, code and analyze data, and participate in a group doing an open-ended qualitative survey project. Prerequisites: BUS 220 or BUS 221 or BUS 250.

**BUS 367 Hotel & Tourism Management** (3 hrs.) This course provides an in-depth look at hospitality operations in the general context of the tourism industry. Topics include an overview of the tourism industry, lodging operations, and food and beverage operations, as well as an examination of the duties of the hotel general manager, revenue management, the front office, and housekeeping. Students should expect a combination of textbook based assignments, drop box assignments involving online articles, discussion forum postings and responses, as well as online exams based on the lecture material and course readings. Prerequisites: BUS 220 or BUS 250 or ECN 212.

**BUS 450 Business Strategy** (3 hrs.) A course for second-semester seniors in which principles and theories of management, marketing, accounting, finance, and economics are used to analyze comprehensive case studies. A model for company-wide strategy planning will be studied. Prerequisites: ACC 215 and 216; BUS 220, 250 and 318; ECN 211 and 212.

## ECN – Economics

**ECN 110 Introduction to Economics** (3 hrs.) This introductory course will briefly explore the historical foundations of economics systems including the foundation of private property rights, the emergence of capitalism and market-based economy, and its rise in different forms in the US and around the world. The course will then move to the study of microeconomic topics such as scarcity, theory of markets and effects of the market structures on the resource allocation and social welfare. After exploring markets and market structures, the course will move into topics from macroeconomic such as measurements of an economy, basic classical and Keynesian theory and the macroeconomic tools of fiscal and monetary policy. Finally, this course will conclude with a look at the economics of international trade, and exchange rates. This is an excellent course to explore subject matter of economics for those who have not done any economics before and would like to get an introduction to its subject matter or to pursue further study in business and economics.

**ECN 211 Principles of Macroeconomics** (3 hrs.) An introductory course that examines, in an international context, the causes and consequences of economic growth, inflation and unemployment, and how government fiscal and monetary policies affect macroeconomic outcomes. Prerequisite: MAT 114 or MAT 122 or MAT 124.

**ECN 212 Principles of Microeconomics** (3 hrs.) An introductory course to acquaint the student with consumer choice, the market system, resource allocation, and the decisions of firms in markets with varying degrees of competition with applications relating to public policy. Prerequisite: MAT 114 or higher.

**ECN 308 Economics of Industrial Organization** (3 hrs.) In this course students will study business firms' behavior under different market structures. The course studies behavior of firms: their strategy, performance, and interactions under various market conditions and levels of competition. It explains and studies reasons behind business practices such as mergers, acquisition, price discrimination, advertising, product selections, innovations vertical restraints, cartels and exclusionary conducts. It also explains why there are economic regulations, such as antitrust and other industrial regulations. This course will introduce game theory as a tool of economic analysis. Prerequisites: ECN 212 and either MAT 122 or MAT 124 or permission from instructor. Basic understanding of principles of microeconomics, algebra, and calculus is necessary and these will not be reviewed in the class.

**ECN 310 International Trade and Finance** (3 hrs.) Studies international movements of goods and services and monetary flows. Covers international trade theory, trade policy, institutional evolution of the world economy, balance of payments and exchange rates. Prerequisite: ECN 211 and ECN 212.

**ECN 316 Public Finance** (3 hrs.) Examines the role of government in a market system and develops the tools necessary to evaluate government policies. Explores the development and growth of the public sector of the economy, the theory and character of public revenue, expenditure, and debt; studies the use of public finance to achieve economic stability, promote economic growth, and effect other social goals; and examines federal, state, and local taxes, expenditure, and administration. Offered every other spring semester. Prerequisites: ECN 211 and 212.

**ECN 325 Money, Banking, and Financial Markets (3 hrs.)** A study of the roles of the financial sector and of monetary policy on the economy. Explores essential features of financial markets; discusses concerns of bank managers in making investment choices; examines the roles of the Federal Reserve and banks in the money supply process; explores the importance of money in the economy; and examines the importance of exchange rate movements in international investing. Prerequisite: ECN 211.

**ECN 331 Intermediate Macroeconomic Theory** (3 hrs.) This course provides a working understanding of the economy as a whole in an international context. It examines the relationship between such measures of aggregate economic activity as income, unemployment, inflation and interest rates. It develops models of economic activity and uses them to analyze the effects of changes in the economic environment, private behavior and government policy. It also evaluates the potential for government fiscal and monetary policies to affect economic activities. Prerequisite: ECN 211, ECN 212 & MAT 114 or MAT 122 or higher.

**ECN 334 Economic Development** (3 hrs.) This course examines the concept and measurement of development, the main factors that prevent development from taking place, alternative approaches to guiding development, and how development can be made sustainable. It investigates how human resources are transformed in the process of economic development and how that transformation contributes to the development process itself. It discusses how capital is mobilized and allocated for development purposes. It also explores the importance of agriculture, primary production, and industrial development, and analyzes the macroeconomic management of a developing economy open to world markets. Offered every other fall semester. Prerequisites: ECN 211.

**ECN 337 Open Economy Macroeconomics** (3 hrs.) This is an applied macroeconomics course, where students will be exposed to the theories of open market international aspects of finance and macroeconomics. The course will investigate modern monetary and exchange rate relationships between countries. We will analyze the balance of payments of countries, understand the issues related to international capital flows, and explain how exchange rates are determined. In addition, the standard aggregate supply and demand and the IS-LM models will be expanded to open market economies. Prerequisites: ECN 211, ECN 212.

**ECN 351 Price theory and Managerial Decisions** (3 hrs.) An intensive study of the tools which economists use to analyze the allocation resources among alternative uses. Topics discussed include consumer demand (consumer's choice); the determinants of price, output, and employment in various market situations (production and markets); the effects of imperfect competition on resource allocation; and it will then use the concepts to examine business decision techniques. Special emphasis will be placed on the statistical derivation and interpretation of demand and cost curves, and decision making under uncertainty. Prerequisites: ECN 212, MAT 114 and MAT 122.

**ECN 355 Research Methods for Business and Social Sciences Applications** (3 hrs.) This course provides the students with an overview of research methods that are commonly used to support economic, business, public policy research and decision-making. The course emphasizes business and social sciences applications. This course will enhance students understanding of quantitative, statistical and qualitative methods used in business, economics and other social sciences. Students will learn survey methods, sampling and probability distribution, statistical inference, multiple regression technique, time-series analysis and forecasting, and analysis of multivariate system using matrices such as input-output model, activity analysis, and simple linear programming. This course is writing intensive. Prerequisite: MAT 114, BUS 210, ECN 211, ECN 212, or Permission from instructor.

**ECN 360 Mathematical Economics** (3 hrs.) This course gives students majoring in economics and business a sound grounding in mathematical economics that has become indispensable for proper understanding of the current economics and business literatures. The course provides an introduction to a wide array of mathematical techniques used in solving economic problems and developing economic theories. Students will learn and apply integral and differential calculus, differential equations, linear algebra to study and explore economic optimization, static equilibrium analysis, linear economic models, and economic dynamics. The course will provide students an excellent grounding to work in applied and theoretical economics, econometrics and economic modeling. Prerequisites: MAT 124, MAT 215, and ECN 331, or permission from the instructor for students with strong mathematics background (such as seniors with Math majors or Economics majors who have combined GPA above 3.5 in MAT 122 and ECN 355).

**ECN 362 Sports Economics** (3 hrs.) This course introduces students to how economic concepts apply to the business and practice of sports. The sports world is filled with empirical evidence that illustrates economics in action and allows for testing economic theories. Basic economic models will be applied to evaluate professional and amateur sports. We will investigate topics such as the league structure, labor-relations, incentive structures, salary caps, stadium financing, etc. In addition to our attention to professional sports, we will also spend a portion of our time on college athletic programs. By the end of the course, students should be able to distinguish the sports industry from most other types of business industries. Prerequisites: MAT 114, MAT 122 or higher, and ECN 212.

**ECN 364 Labor Economics** (3 hrs.) This is an applied microeconomics course, where students will be exposed to the theories of the labor market and the effects of various government policies on the labor market in the U.S. Socioeconomic issues such as legal and illegal immigration, race and gender discrimination will be investigated in the course. Essentially, students will be using microeconomic economic theories to analyze the determinants of labor demand, labor supply, the causes and effects of wage differential, unemployment and labor unions. Complex topic of worker's compensation and wage structure will also be explored. Prerequisites: ECN 212 and MAT 124 or higher.

**ECN 367 Econometrics** (3 hrs.) An intensive study of the use of multivariate linear regression techniques applied to the estimation of economic relationships. This study will include the assumptions of the statistical model, how to recognize when these assumptions have been violated by the economic model or the data, and what corrective procedures are appropriate. Also discussed will be methods for checking forecast accuracy in advance of the forecast period and simultaneous equation estimation procedures. Prerequisites: ECN 355 or MAT 313 and ECN 110 or both ECN 212 & 211 or permission of instructor.

**ECN/ENV 377 Environmental and Resource Economics** (3 hrs.) This course will introduce students to the theories and methods used to understand and evaluate environmental problems and policies. The class will provide students the much-needed exposure to the non-competitive markets, the methods to analyze such markets, and the effects of these markets on economic institutions. The objective of this course is to introduce students to theories and methods used to understand and evaluate the environmental problems and policies. We will start with concepts of externalities, public goods, property rights and why markets could fail in these cases. Policies to correct market failure in domestic and international situations will be examined. Students will explore the common property problem in case of renewable resources and the public policies used to correct the problem. Prerequisites: MAT 122 or MAT 124, and ECN 212.

**ECN 425 Senior Seminar** (3 hrs.) This course provides the capstone experience in economics. Students will learn how to apply knowledge gained in economics courses to further their understanding of contemporary economic issues. The course provides a review of intermediate macroeconomics, price theory and econometrics. Students will complete a senior thesis which provides an opportunity to conduct original research on an economic or interdisciplinary issue. Students will present and discuss their research results in class throughout the semester. Prerequisites: Senior standing, ECN 331, (ECN 367 or ECN 355), and at least two economics electives or consent of instructor.

## **FIN – Finance**

**FIN 310 International Trade and Finance** (3 hrs.) Studies international movements of goods and services and monetary flows. Covers international trade theory, trade policy, institutional evolution of the world economy, balance of payments and exchange rates. Prerequisite: ECN 331.

**FIN 318 Corporate Financial Management** (3 hrs.) Emphasis is placed upon the underlying principles and practices of finance and how they relate to the decision-making process faced by a corporate finance manager. Students learn to interpret financial data, assess financial position of a company, apply time-value of money analysis, conduct project evaluation through NPV, IRR, MIRR, etc. Although the course emphasizes on corporate financial decision making, the principles learnt and skills developed will also help students in personal finance and small business decision-making. Prerequisites: ACC 215 and BUS 210 with a grade of C or better. BUS 210 and FIN 318 can be taken concurrently.



**FIN 325 Money, Banking and Financial Markets** (3 hrs.) A study of the roles of the financial sector and of monetary policy on the economy. Explores essential features of financial markets; discusses concerns of bank managers in making investment choices; examines the roles of the Federal Reserve and banks in the money supply process; explores the importance of money in the economy; and examines the importance of exchange rate movements in international investing. Prerequisite: ECN 211.

**FIN 328 Managerial Finance** (3 hrs.) A continuation of FIN 318 Corporate Financial Management, this course focuses on long-term/strategic financial management. With a brief discussion on the methodologies of financially evaluating projects, this course spends considerable time on developing a sound understanding of how to finance those projects under different circumstances and make related decisions to maximize value creation. In particular, this course covers cost of capital, raising capital, capital structure, dividend policy, risk management, mergers and acquisitions, leasing, etc. Prerequisites: FIN 318 with a grade of C or better.

**FIN 350 Investments** (3 hrs.) The purpose of this course is to provide conceptual and theoretical foundations in determining the values of financial assets such as common stocks, bonds, etc., the timing of security purchases and sales, and an introduction to portfolio construction techniques. As part of this course, students form groups, select actual companies, conduct research on those companies, value the stock of those companies, make recommendations for investment, and present their research to the faculty. Prerequisites: ACC 215, BUS 210, and FIN 318.

**FIN 351 Portfolio Management** (3 hrs.) This course is designed to focus on the theoretical and practical aspects of forming optimal portfolios. Topics include mean-variance analysis, Markowitz portfolio theory, efficient frontiers, optimal portfolios, performance evaluations, etc. Prerequisites: FIN 318 with a grade of C or better, plus MAT 124 or MAT 122, plus ECN 355.

**FIN 354 Options and Futures** (3 hrs.) A challenging finance course emphasizing the analysis, pricing, and application of derivative securities. Topics include options, futures, forward, and swap contracts, arbitrage, hedging, portfolio risk and insurance, etc. This course requires relatively greater use of quantitative methods and theoretical reasoning than other finance courses. However, developing an intuition is as important as understanding the underlying mathematics to be able to use the techniques and models effectively. Prerequisite: FIN 350 with a grade of C or better, plus ECN 355.

## MAT – Mathematics

**MAT 110 Quantitative Reasoning for Mathematical Problem Solving** (3 hrs.) This course emphasizes basic mathematical principles through problem solving. The focus is on solving problems encountered in typical college courses such as interpreting graphs, applying formulas, computing interest and percentages, understanding statistical output, and solving equations. The quantitative reasoning approach builds critical thinking skills in solving problems and analyzing the outcomes of those contextually. This course is designed for those students who will broadly use mathematics in everyday life, with less technical emphasis on skills for future math courses. This course is for those who do not intend to major in programs requiring additional mathematics. Offered every semester. Prerequisites: None

**MAT 111 College Algebra** (3 hrs.) The study of linear, quadratic, exponential and logarithmic equations, inequalities, functions and graphs and their applications. Prerequisites: ACT math score between 19 and 23 or SAT math score between 410 and 530 or Accuplacer Advanced Algebra and Functions score of 241 and at least 2 years of high school algebra with at least C's. Not meeting prerequisite requires the student to successfully complete MAT 110 as the Foundational Mathematics requirement. Offered every semester, one or more sections depending on demand.

**MAT 114 Elementary Statistics** (3 hrs.) A study of the organization and analysis of data including the normal, binomial, chi square and t distributions; estimating population parameters; hypothesis testing; random sampling; central limit theorem; and simple linear regression and correlation. A term project using technology for analysis and testing of data collected from real life is a required component of the course. Prerequisites: ACT math score 23 or SAT math score 540 and 4 years of high school math, including 2 years of algebra with at least B's. Not having prerequisite requires the student to successfully complete MAT 110 Quantitative Reasoning for Mathematical Problem Solving or MAT 111 College Algebra with a grade of C- or better. Offered every semester.

**MAT 115 Fundamentals of Data Science** (3 hrs.) The focus of this course is to introduce the scientific methods and processes used to analyze large data sets and predictive modeling methods. The course will use statistical methods and exploration techniques to investigate patterns and anomalies in mostly structured large data sets. Underlying theories of statistics will be utilized to explore, interpret, and visualize data in interdisciplinary fields such as health, business, education, and economics. An introduction to R programming language and R Studio will be used throughout the course. Pre-requisites: Evidence of college level statistics course with a grade of C- or better, a math ACT of 25 or higher, a math SAT score of 610 or higher, or AP stats with a score of "4" or higher. Offered spring semester.

**MAT 121 Pre-Calculus** (3 hrs.) The study of trigonometric, exponential, logarithmic and algebraic functions and their applications. Pre-Calculus is a course for students who plan to take Calculus I. Prerequisites: ACT math score 22 or SAT math score 540 and at least 4 years of high school math, including 2 years of algebra with at least B's. Not meeting prerequisite requires the student successfully complete MAT 111 with a grade of C- or better. Offered every semester or depending upon demand.

**MAT 122 Business Calculus** (3 hrs.) A terminal calculus course, including a brief review of algebra and the study of the derivatives and integrals of algebraic, exponential and logarithmic functions. Business applications of the derivative and the definite integral are also studied. Prerequisites: ACT math score 23 or SAT math score 540 and at least 4 years of high school math, including 2 years of algebra and some pre-calculus with at least B's. Students not meeting these prerequisites requires the students to successfully complete MAT 111 with a grade of C- or better. Offered every semester or depending upon demand.

**MAT 124 Calculus I** (5 hrs.) A formal introduction to calculus, including limits, derivatives, techniques of differentiation, optimization, anti-derivatives, definite integrals, and the fundamental theorem of calculus. Applications in science and engineering are included. Prerequisites: ACT math score of 25 (27 preferred) or SAT math score of 600 (630 preferred) and at least 4 years of high school math, including a pre-calculus or trigonometry course with a grade of at least B. Not having prerequisite requires the student to successfully complete MAT 121, Pre-calculus with a grade of C- or better. Offered every semester.

NOTE: A course **leading to the fulfillment** of the Breakthrough math requirement (MAT 114 or MAT 124) must be taken in the first year (MAT 090 Intermediate Algebra, MAT 111 College Algebra, MAT 114 Elementary Statistics, MAT 121 Pre-Calculus, or MAT 124 Calculus I).



**MAT 214 Calculus II** (4 hrs.) A continuation of MAT 124. This course includes integration of standard forms (integration by parts, trigonometric substitution, etc.), the definite integral, applications of integration and the study of sequences and series. Prerequisites: Completion of MAT 124 with a C- or better, or permission of the instructor. Offered every semester or depending upon demand.

**MAT 215 Linear Algebra** (3 hrs.) An introduction to the concepts of linear transformations and matrices, determinants, vector spaces, eigenvalues, and selected applications. Prerequisites: Completion of MAT 124 with a C- or better. Offered every fall semester.

**MAT 224 Calculus III** (4 hrs.) A continuation of MAT 214. This course includes solid analytic geometry, an introduction to vector analysis and differential geometry, partial differentiation and multiple integration. Prerequisites: Completion of MAT 214 with a C- or better. Offered every semester or depending upon demand.

**MAT 231 Mathematics for Elementary & Middle School Teachers** (3 hrs.) This is the first part of a two-part integrated methods and content course for elementary teachers. This part focuses on the "why" along with the "how" of such topics as problem solving, deductive and inductive reasoning, beginning number concepts, operations with whole numbers, elementary number theory and other appropriate topics such as learning theory and assessment. Prerequisites: Completion of the Tier I mathematics or Foundational math requirement in Breakthrough requirement with a C- or better. Offered every fall semester.

**MAT 305 Heart of Mathematics** (3 hrs.) A semester-long discussion of the big ideas of mathematics in cultural and applications contexts. Evolution of mathematical ideas in art, the sciences, computing, literature and other disciplines. An introduction to mathematical thinking and problem-solving in many contexts. Prerequisites: MAT 214 with a C- or better, or permission of instructor. Offered in the spring semester of even years.

**MAT 310 History of Mathematics** (3 hrs.) This course is taught from the viewpoint that mathematics has been a major cultural force in many civilizations. The course will trace the evolution of mathematics and its impact on the human endeavor as civilizations rose and fell throughout history to modern times. Prerequisites: Completion of MAT 124 with a C- or better. Offered in the fall semester of odd years.

**MAT 312 Differential Equations** (3 hrs.) A study of ordinary differential equations (ODEs). This course is focused on the analytical, geometrical, and numerical aspects of differential equations. First and second order ODEs are studied using various analytical techniques. The Laplace transform is utilized to solve initial value problems of higher-order ODEs. Particular attention is paid to systems of ODEs using phase portraits and numerical analyses. Offered spring semester of odd years. Prerequisites: Completion of CSC 104 and MAT 224 with a C- or better, or by permission of instructor.

**MAT 313 Mathematical Probability and Statistics** (3 hrs.) This course introduces the student to the mathematics of probability and statistics. The concepts of discrete and continuous probability distributions are studied in detail. The material is applied to the areas of statistical inference, including estimation and hypothesis testing. Offered every spring semester. Prerequisites: Completion of MAT 214 with a C- or better or concurrent enrollment in MAT 214.

**MAT 314 Higher Geometry** (3 hrs.) A study of various geometric axiomatic systems from both the synthetic and analytic approach, including finite and non-Euclidean geometries. Offered every fall semester or depending upon demand. Prerequisites: Completion of MAT 331 with a C- or better.

**MAT 321 Discrete Mathematics and Graph Theory** (3 hrs.) This course provides an introduction to an area of mathematics focusing on discrete rather than continuous mathematical structures. Topics explored in this course include number theory, functions and sequences, graph theory, combinatorics, and set theory. Basic definitions and concepts of the field as well as some major results in the area will be discussed. This course prepares students for further study in mathematics, business, or computer-related fields. Pre-requisite: MAT 214 with a grade of C- or better. Offered in even fall semesters.

**MAT 331 Mathematics Seminar** (3 hrs.) A study of the foundations of mathematics, logical deductive reasoning and proof. Emphasis is on sets and number theory. This course prepares the mathematics major for success in other 300- and 400-level mathematics courses. Prerequisites: Completion of CSC 104 with a C- or better; and MAT 224 with a C- or better or permission of the instructor. Offered every spring semester.

**MAT 340 Statistical Computer in R Studio** (3 hrs.) A projects-based introduction to R and R Studio with applications in relevant fields. The focus of this course is to work with pre-processed data and flat files, access and format large data from the web, analyze data by methods such as conditional means, regression analysis, and cross-validation techniques, with the focus on statistically analyzing and presenting the data.

**MAT 351 Methods of Teaching Elementary & Middle School Mathematics** (3 hrs.) This course is the second part of an integrated methods and content course for elementary teachers. Topics include fractions, decimals, geometry, probability and statistics, measurement and other appropriate topics. Offered every spring semester. Prerequisites: C- or better in MAT 231 or permission of the instructor.

**MAT 398 Independent Study** (1-4 hrs.) Individual study and/or research under the supervision of staff members on a particular topic agreed upon by both the student and the instructor. Enrollment by permission of the instructor and department chair.

**MAT 411 Data Science Seminar** (3 hrs.) This is a capstone course for majors. Each individual in the class carries out research under the supervision of the instructor in large-scale data analysis using statistical knowledge and computational techniques learned in previous courses. Literature review, regular meetings, progress reports, and a final paper and presentation are required. Topics may be chosen from interdisciplinary fields including, but not limited to, computer science, biology, psychology, engineering, and business. Offered every other spring semester. Prerequisites: MAT 340, ECN 355, and CSC 211 with a grade of C- or better.

**MAT 422 Modern Algebra** (3 hrs.) A study of the axiomatic development of algebraic structures, including groups, rings, and fields, with selected introductions to topics which may include symmetry groups, factorization, and integral domains. Offered every spring semester. Prerequisites: Completion of CSC 104 and MAT 331 with a C- or better.

**MAT 424 Advanced Calculus** (3 hrs.) This course is a rigorous study of the foundations of Calculus with emphasis on limits, continuity, differentiation, and Riemann integration. Through the reexamination of those topics, students learn proof techniques which are fundamental to the mathematical field of analysis. Prerequisites: Completion of CSC 104, MAT 331, and MAT 224 with grades of C- or better. Offered every fall semester.

## SPE – Speech

**SPE 101 Introduction to Speech Communication** (3 hrs.) This course provides an overview of the speech communication discipline with an emphasis on public speaking. The class includes experiential and theoretical explorations of public speaking, group dynamics and interpersonal communication.

**SPE 203 Interpersonal Communication** (3 hrs.) A skills and theory examination of communication within human relationships. The class covers communication-related areas of self-concept, self-disclosure, perception, semantics, nonverbal communication, listening, defensive communication and conflict resolution.

**SPE 220 Public Relations** (3 hrs.) Introduction to concepts, techniques, and application involved in researching and planning programs in public relations. Such programs are designed to influence public opinion and human behavior. Students should be able to define public relations, understand PR's historical perspective, and apply relevant information toward participating in a PR campaign. Offered every other spring semester. No prerequisite, but ENG 260 and SPE 101 are strongly recommended.

**SPE 303 Communication in Relationships** (3 hrs.) This course examines in-depth views of various communication theories in dyadic relationships. Issues covered include content and relational aspects of messages, analysis of relationship stages and communication competence. Prerequisites: a grade of C or better in SPE 203 and sophomore standing.

**SPE 310 Business and Professional Communication** (3 hrs.) The capstone course for Business Communication majors covering theoretical and experiential concepts and techniques of communication in professional situations. Includes units in interviewing, persuasion and organizational communication. Prerequisites: completion of SPE 101 with grade of C or better and junior standing.

**SPE 398 Independent Study** (3 hrs.) This course permits additional study in areas of communication that are not covered by regular course listings. The precise topic is defined by the student and instructor and is taught on a research-tutorial basis. Prerequisites: completion of SPE 101 or 203 with a grade of C or better.