Business Administration (MBA)

MBA 500 Managerial and Career Effectiveness  (0.5-3 credit hours)
Frameworks, concepts and tools for management and career effectiveness. Assessment of managerial strengths, weaknesses, and potential. Team building, public speaking, networking, decision making, creativity and problem solving. Career development techniques including data mining, job search, behavior based interviewing, and negotiation skills with practical application of those concepts. Restricted to MBA Students.

Typically offered in Fall only

MBA 501 Financial Accounting for Decision Makers  (1 credit hours)
Methods used by accountants record to economic events such as operating, investing, and financing activities, in the income statement, balance sheet, and statement of cash flows. Analysis of financial statements and disclosures. Impact of accounting standards and managerial incentives on the financial reporting process. Restricted to MBA students.

Typically offered in Fall, Spring, and Summer

MBA 502 Managerial Accounting for Decision Makers  (1 credit hours)
Foundational knowledge in managerial accounting for decision making. Internal uses of accounting information for decision making within the organization. Identification of revenue and cost information to conduct break-even analyses, assign product costs, complete operational budgets, assess performance, and complete other management decision-making processes. Restricted to MBA students.

Prerequisite: MBA 501

Typically offered in Fall and Spring

MBA 505 Essential Economics for Managers  (2 credit hours)

Typically offered in Fall and Spring

MBA 506 Data-Driven Managerial Decisions 1  (1 credit hours)
Business cases and problems where data analysis is part of the decision-making process. Applications to finance, management, marketing, and operations. Proficiency in Excel methods commonly used in management. Completion of a project where students follow a business problem from formulation to solution using data analysis. Restricted to MBA students.

Prerequisite: BUS/ST 350

Typically offered in Fall, Spring, and Summer

MBA 507 Data-Driven Managerial Decisions 2  (1 credit hours)
Continuation of a series of business cases and problems where data analysis is part of the decision making process. Estimation of linear relationships among variables, with applications to finance, management, marketing, and operations. Proficiency with Excel methods commonly used for estimation. Completion of a project where students follow a business problem from formulation to solution using the methods covered the course. Restricted to MBA students.

Prerequisite: MBA 506

Typically offered in Fall, Spring, and Summer

MBA 510 Critical Thinking for Managers  (1 credit hours)
Structure for critically analyzing and evaluating an issue, claim, text, or speech from a management perspective. Systematic analysis and evaluation of information, concepts, and ideas in order to identify underlying assumptions, purposes, and questions. Synthesis of this knowledge to logically form conclusions and recognize implications. Communication of arguments and beliefs and recognition of common language barriers in the written and spoken word. For online sections, must be enrolled in MBA program.

Typically offered in Fall and Spring

MBA 511 Data Security and Privacy  (3 credit hours)
Data security and privacy necessary for today’s business environment. Common vulnerabilities, securing data, encryption, policies, privacy management, standards, and compliance.

Typically offered in Fall and Spring

MBA 515 Enterprise Resource Planning Systems  (3 credit hours)

Typically offered in Fall and Spring

MBA 516 Ethics and Fraud Examination  (3 credit hours)
Examination of business ethics and occupational fraud cases, including asset misappropriation, corruption, and fraudulent financial reporting. Theories about fraud, prevalence of and effects of fraud, in the US and globally. Fraud examination skills including investigation, data analysis, and interviewing. Identification of common schemes and development of internal controls to prevent and detect fraud. Business ethics and socio-political responses to occupational fraud.

Typically offered in Spring and Summer

MBA 518 Enterprise Risk Management  (3 credit hours)
Integrated approach to managing the risks that can prevent an organization from achieving its objectives, both financial and non-financial. Core elements of an effective enterprise risk management process. Links to management strategy. Risk assessment methodologies.

Typically offered in Fall only

MBA 519 Enterprise Risk Management Practicum  (3 credit hours)
Applied approach to managing the risks that can prevent an organization from achieving its objectives, both financial and nonfinancial, by working in teams to address real problems in real organizations.

Prerequisite: MBA 518

Typically offered in Spring only
MBA 520  Financial Management of Corporations  (2 credit hours)
Financial decision making at profit-motivated businesses: decisions about what to produce and how and decisions about how to finance the assets needed for production. Cash as the basis of asset valuation. Capital budgeting decisions under certainty and

Prerequisite: MBA 501 Financial Accounting for Decision Makers
Typically offered in Fall, Spring, and Summer

MBA 521  Advanced Corporate Finance  (3 credit hours)
Overview of financial management. Evaluation of projects and valuation of real assets using traditional discounted cash flow analysis and real options. Role of financial leverage; optimal capital structure. Conflicts between security holders and management; stockholder-bondholder conflicts; financial distress, bankruptcy and reorganization; corporate control and restructuring; corporate governance issues.

Prerequisite: MBA 520
Typically offered in Fall and Spring

MBA 522  Financial Modeling  (3 credit hours)
This course examines models for capital budgeting, equity and bond valuation, capital structure, dividend policy, among other topics, using spreadsheet analyses. The course will take a very hands-on approach in building spreadsheet models. The course also includes sensitivity analysis, pro-forma analysis and using financial statements.

Prerequisite: MBA 520
Typically offered in Fall only

MBA 523  Investment Theory and Practice  (3 credit hours)
Advanced topics in investments with a focus on underlying theory and practical application using real world data. Stock valuation models, bond valuation, derivatives, portfolio performance evaluation, investment strategies, efficient market theory and other current issues in investment finance.

Prerequisite: MBA 520
Typically offered in Fall and Spring

MBA 524  Equity Valuation  (3 credit hours)
Advanced quantitative course on applied equity valuation. Students conduct stock valuation analysis which is then used to select stocks for the student-managed SunTrust MBA fund. Topics include the investment decision making process, empirical evidence on securities returns, forecasting financial statements, industry and macro-economic analysis, valuation models, portfolio performance evaluation and performance attribution. Students will also learn how to write computer programs using SAS software in order to generate statistical tests of investment strategies using “big financial data.”

Prerequisite: MBA 520
Typically offered in Spring and Summer

MBA 525  Taxes and Business Strategy  (3 credit hours)
Importance of tax considerations in business decisions. Framework for understanding how taxes affect business strategy and financing decisions in a wide variety of settings.

Typically offered in Spring only

MBA 526  International Finance  (3 credit hours)
Theory and practice of financial management in the international arena, including spot and forward markets for foreign exchange, currency futures and options contracts, international arbitrage conditions, foreign exchange exposure, foreign trade financing instruments, direct and portfolio investment abroad, and the role of country risk in determining investments.

Prerequisite: MBA 520
Typically offered in Fall only

MBA 528/FIM 528/MA 528/ECG 528  Options and Derivatives Pricing  (3 credit hours)
The course covers (i) structure and operation of derivative markets, (ii) valuation of derivatives, (iii) hedging of derivatives, and (iv) applications of derivatives in areas of risk management and financial engineering. Models and pricing techniques include Black-Scholes model, binomial trees, Monte-Carlo simulation. Specific topics include simple no-arbitrage pricing relations for futures/forward contracts; put-call parity relationship; delta, gamma, and vega hedging; implied volatility and statistical properties; dynamic hedging strategies; interest-rate risk, pricing of fixed-income product; credit risk, pricing of defaultable securities.

Prerequisites: MA 341 and MA 405 and MA 421
Typically offered in Fall only

MBA 530  Leading People  (3 credit hours)
This course is about the fundamentals of leading people, a critical aspect of every management position and leadership role. The course will focus at three levels of analysis: the individual, the group and the organization. Students will gain exposure to topics and issues in the field of organizational behavior and human resource management. These include knowing about and dealing with individual differences, international and cultural issues, working in groups (both virtually and geographically co-located), motivation, leadership, organizational structures and cultures, change management, empowerment, delegation, communication, and management ethics. Restricted to MBA students.

Typically offered in Spring only

MBA 531  Leading People 1  (1 credit hours)
This one-credit course is designed for part-time and online students and serves as the first part of the Leading People series. The Leading People series focuses at three levels of analysis: the individual, the group and the organization. In this series, students will gain exposure to topics and issues in the field of organizational behavior and human resource management. Content covered in part 1 addresses team leadership and change management. This course also includes instruction on improving communication skills, making presentations, leading from strengths, and emotional intelligence. Restricted to MBA students. Students may not receive credit in MBA 530 and MBA 531.

Restriction: Restricted to MBA students. Students may not receive credit in MBA 530 and MBA 531.

Typically offered in Fall and Spring
MBA 532 Leading People 2 (2 credit hours)
This two-credit course is designed for part-time and online students and serves as the second part of the Leading People series. The Leading People series focuses at three levels of analysis: the individual, the group and the organization. Students will gain exposure to topics and issues in the field of organizational behavior and human resource management. Content covered in this course includes dealing with individual differences, international and cultural issues, working in groups (both virtually and geographically co-located), motivation, leadership, organizational structures and cultures, empowerment, delegation, and management ethics. Restricted to MBA students. Students may not receive credit in MBA 530 and MBA 532.

Restriction: Restricted to MBA students. Students may not receive credit in MBA 530 and MBA 532.

Typically offered in Fall only

MBA 533 Negotiation and Conflict Management (3 credit hours)
Course emphasizes ensuring that the organization benefits from inevitable conflicts that occur. It provides skills in diagnosis, negotiation, and building trust and cooperative working relationships in organizations.

Typically offered in Spring and Summer

MBA 534 Core Concepts of Human Capital Management (3 credit hours)
The course will cover the core concepts behind successfully acquiring, deploying and motivating talent to achieve organization competitiveness. Students will think strategically about company human assets, learn basic HRM concepts and then create practical solutions to typical HCM problems. At the end of this course, students will demonstrate a basic understanding of the topics of equal opportunity employment, diversity, recruiting and selection, performance evaluation, performance goal setting, performance coaching and feedback, competitive compensation and benefits, fair discipline and termination processes and strategic talent management and succession programs.

Typically offered in Fall only

MBA 535 Leading Teams (1 credit hours)
More and more organizations are using team-based work to accomplish tasks. This course provides the latest, evidence-based best practices for working in, and leading, teams in organizations. The course is designed to be activity-driven and hands-on to give students the opportunity to practice and improve their team skills.

Typically offered in Fall only

MBA 536 Experience Innovation and Strategic Design (3 credit hours)
Successful innovation involves creating more valuable experiences for users and customers. The course covers key concepts and methodologies for experience-based innovation, drawing on design and creativity frameworks to fully understand customer experiences. Course activities include exercises and a project to practice innovation and "design-thinking" tools and techniques in a business context. Relevant strategic perspectives for designing innovative products and services are addressed through case studies and other managerial readings with practical business application. The importance of a multi-disciplinary approach to experience innovation is emphasized, such that the course is suitable for students in all disciplines with an interest in innovation.

Typically offered in Spring only

MBA 538 Women as Leaders (1 credit hours)
This course focuses on helping women uncover and reflect on their leadership styles so that they can become more empowered leaders, take responsibility for recognizing the potential in people and ideas, and have the courage to develop that potential.

Typically offered in Spring only

MBA 539 Jenkins Leadership Challenge (1 credit hours)
Leadership skills are highly valued in today's business environment. This is the capstone course for the Jenkins MBA Leadership Certificate. In other classes in the leadership series, students have learned what a successful leader is, what a successful leader does, and how a successful leader deals with contingencies in an effective way. In this class participants will review the Five Practices of Exemplary Leadership and select behaviors in their own leadership practice that need to be adjusted for stronger leadership performance. Students will then plan and execute a personal leadership challenge to address these behaviors. Course content includes a leadership assessment, lectures and readings, required participation in group coaching, periodic individual reflections, development of videos for leadership challenge proposals and testimonials, and a final paper that reflects on the student's journey through the leadership program and identifies plans for the future.

Prerequisite: MBA 510 and MBA 530 or MBA 531 and MBA 532.

Typically offered in Fall and Spring

MBA 540 Principles of Operations and Supply Chain Management (2 credit hours)
Design and management of operations and supply chains. Analysis of strategies, processes, planning and control, and advanced techniques using a variety of managerial frameworks and quantitative tools. Restricted to MBA students.

Prerequisite: MBA 507

Typically offered in Fall, Spring, and Summer

MBA 541 Supply Management (3 credit hours)
Major themes and strategies of supply management relationships. The focus is on establishing a basis for collaborative relationships with suppliers through focused market intelligence research, relationship assessment and management, negotiation, collaborative contracting, and on-going management of relationships in global supply chains. Emphasis on the importance of collaboration through the application of practical tools and approaches that drive mutually beneficial outcomes. Core processes around initial exploration and assessment of supply chain relationships, establishing metrics/expectations for the relationship, crafting and managing contracts, and sustaining continuous performance improvement in sourcing, logistics and operations. Every student will participate in a team-based supply chain project with an organization and will learn the team-based, deadline-driven nature of supply chain initiatives in a real-company setting.

Co-requisite: MBA 540 Operations and Supply Chain Management

Typically offered in Fall and Spring

MBA 542 Supply Chain Logistics (3 credit hours)
Effective logistics decision-making using a variety of conceptual frameworks and quantitative tools. Relationship between logistics and broader issues of managing the entire supply chain and fulfilling the strategic objectives of a firm. Inventoryymana

Typically offered in Fall and Spring
MBA 543 Planning and Control Systems (3 credit hours)
Design and management of planning and control systems within the organization and across the supply chain. Business planning, master production scheduling, material requirements planning, just-in-time and theory of constraints. Enterprise resource planning (ERP) and business-to-business (B2B) systems. Impact of information technologies on planning and control systems. Major project using state-of-the-art ERP system.

Typically offered in Spring only

MBA 545 Decision Making under Uncertainty (3 credit hours)
Structured framework for modeling and analyzing business decisions in the presence of uncertainty and complex interactions among decision parameters. Topics include decision models, value of information and control, risk attitude, spreadsheet applications, and decision analysis cycle. Interactive case study.

Typically offered in Fall, Spring, and Summer

MBA 548 Analytical Supply Chain Management (3 credit hours)
The objective of the course is to build an understanding of how to manage and improve the performance (efficiency and responsiveness) of operations and supply chains through decision making that is based on analysis and facts, rather than intuition. The course introduces fundamental aspects of operations and supply chain management as well as analytical modeling tools and techniques that can be used to support decision making (e.g., optimization, regression analysis, simulation). The approach taken in the course is entirely example-based and hands-on, since all these techniques will be implemented in Excel, either with Excel's built-in tools or with Excel add-ins.

Prerequisites: MBA 507 and MBA 540
Typically offered in Fall only

MBA 549 Supply Chain Management Practicum (3 credit hours)
Research project examining supply chain management issues at an organization, usually a member of the Supply Chain Resource Cooperative. Projects will typically focus on procurement, logistics, materials management, operations, or integrated supply chain issues.

Prerequisite: MBA 540
Typically offered in Fall and Spring

MBA 551 Predictive Analytics for Business and Big Data (3 credit hours)
This course is designed around the full analytics lifecycle which encompasses the business problem, the data, the analysis, and the decision. Students will learn to identify and clearly explain business problems that can be addressed with analytics. They will learn to determine which analytic methods are best suited to solve particular problems and clearly explain the results of an analytic model and how those results might impact the business bottom line. Analytical methods to be covered include data visualization, a review of regression analysis; logistic regression; classification and regression trees (including boosting and bagging methodologies); and clustering (segmentation) methods. Students will also develop at least a beginning proficiency with several statistical software packages including Tableau, JMP, R, and SAS Enterprise Miner. Emphasis will be placed on analyzing real data and understanding how analytical thinking can be applied to solve big data problems.

Prerequisites: MBA 506 and MBA 507
Typically offered in Fall, Spring, and Summer

MBA 552 Data Engineering, Management and Warehousing (3 credit hours)
This course examines how to collect and process data to make it useful, how to validate, protect, and process data to make it available, and how to create a place to properly store data.

Typically offered in Fall, Spring, and Summer

MBA 555 Product Design and Development (4 credit hours)
Total product realization process, including customer needs analysis, product design and engineering, manufacturability assessment and marketing plan development. Definition of relevant market, design and engineering principles, financial considerations and manufacturing aspects of product development process. Application and integration of business, design and engineering methodologies, concepts and tools on actual product design and development project.

Typically offered in Fall only

MBA 559 Business Analytics Practicum (3 credit hours)
This course focuses on solving a real-world business problem that includes a heavy data analytic component. The business problem will vary according to the client but could include problems from finance, human resources, marketing, finance, supply chain, or other management areas.

Prerequisite: MBA 506 and MBA 507 and MBA 551
Typically offered in Fall and Spring

MBA 560 Marketing Management and Strategy (2 credit hours)
Market segmentation, targeting, and positioning. Channels of distribution, promotion strategy, product development strategy, and pricing strategy. Relationship marketing and marketing strategy. Applications in high-tech environments. Restricted to MBA students.

Typically offered in Fall, Spring, and Summer

MBA 561 Consumer Behavior (3 credit hours)
Consumer perception of products and brands, including the role of product design and development of consumer attitudes. Analysis of how consumers make decisions and how those decisions can be influenced by messaging, pricing, and emotions.

Typically offered in Fall and Spring

MBA 562 Research Methods In Marketing (3 credit hours)
A systematic approach to structure, implementation and analysis of marketing research for decision making. Models of consumer demand and firm behavior analyzed in a marketing context.

Typically offered in Fall only

MBA 563 Product and Brand Management (3 credit hours)
**MBA 564 Business Relationship Management** (3 credit hours)
Strategic, successful management of the multitude of business relationships that contemporary managers face. Universal and idiosyncratic business relationship skills to allow technically-oriented managers such as engineers and scientists to interact with a variety of constituents. Integrated perspective of marketing communications as a process of successfully interacting with each constituency with the goal of fostering long-term satisfaction and loyalty, which ultimately translates to sustainable competitive advantage.

Typically offered in Fall and Spring

**MBA 565 Marketing Analytics** (3 credit hours)
Analytical techniques to convert a wealth of data on customers and markets into insights to guide business decisions. Taking a hands-on and systematic approach on the steps involved in harnessing knowledge from data, the course covers the various data techniques and steps involved in data- and model-driven management decisions. Techniques include market response models, conjoint analysis, discrete choice models.

Prerequisites: MBA 507 and MBA 560

Typically offered in Fall and Spring

**MBA 566 Digital Marketing** (3 credit hours)
This course covers the basics of digital marketing from an analytics perspective. Each channel of digital marketing, such as search engine optimization, social, mobile, web, email, and video, are examined and their relationship to overall firm marketing strategy is explored.

Typically offered in Spring only

**MBA 570 Opportunity Evaluation and Value Creation** (3 credit hours)
First course in a two-course entrepreneurship sequence focusing on opportunities outside the technology arena. Management of the innovative activities of a firm (new and/or existing) to facilitate entrepreneurship-the discovery, evaluation, and exploitation of opportunities to create value. Generation and screening of new product/process ideas or concepts. Transformation of such ideas into products, processes, or services that satisfies stakeholders (e.g., customers, employees). Topics include self-assessment of personal aspirations, skills, and competencies, as well as opportunity identification/evaluation, business model design, and launching and scaling ventures.

Credit not allowed in MBA 570 if the student has already taken MBA 576 or MBA 577.

Typically offered in Fall and Spring

**MBA 571 High Growth Entrepreneurship** (3 credit hours)
Second course in a two-course entrepreneurship sequence focusing on opportunities outside the technology arena. Theoretical and practical, team-based, approach to the evaluation and assessment of opportunities for value creation. Emphasis on how to discover, validate, and then execute on an action plan to create value. Credit not allowed if the student has already taken MBA 576 or MBA 577.

Prerequisite: MBA 570. Credit not allowed if the student has already taken MBA 576 or MBA 577.

Typically offered in Fall and Spring

**MBA 572 Venture Opportunity Analysis Analytics** (3 credit hours)
Application of the process-based model for new business startups to multiple clients. Emphasis is placed on data gathering, data analysis and data interpretation in the context of evaluating opportunities for new business. Students work in teams on a variety of projects with technology commercialization clients such as Wolfpack Investment Network and Office of Technology Commercialization and New Ventures.

Typically offered in Fall and Spring

**MBA 576/MSE 576 Technology Entrepreneurship and Commercialization I** (3 credit hours)
First course in a two-course entrepreneurship sequence focusing on opportunities for technology commercialization. Evaluation of commercialization of technologies in the context of new business startups. Emphasis is placed on creating value through technology portfolio evaluation and fundamentals of technology-based new business startups. This includes development of value propositions and strong technology-product-market linkages. The process based approach is appropriate for new business startup as well as entrepreneurship in existing organizations through spinoffs, licensing, or new product development. Credit not allowed for MBA 576 if the student has already taken MBA 570 or MBA 571.

Credit not allowed in MBA 576 if the student has already taken MBA 570 or MBA 571

Typically offered in Fall and Spring

**MBA 577/MSE 577 Technology Entrepreneurship and Commercialization II** (3 credit hours)
Continuation of evaluation of technologies for commercialization through new business startups. Emphasis is placed on creating value through strong technology-products-markets linkages using the TEC algorithm. Topics include industry and market testing of assumptions, legal forms of new business startups, funding sources and creating a quality, integrative new business startup plan. Credit not allowed in 577 for students who have already taken 570 or 571.

Prerequisite: MBA/MSE 576. Credit not allowed in 577 for students who have already taken 570 or 571.

Typically offered in Fall and Spring

**MBA 578 Venture Launch** (3 credit hours)
Immersion in the activities of opportunity exploitation. Students work in groups to plan and execute the launch of a new value creating entity. Strategy formulation and strategy implementation for a new business startup. Includes all aspects of value creation.

Prerequisite: MBA 571 or MBA 577

Typically offered in Fall and Spring

**MBA 579 Entrepreneurship Clinic Practicum** (3 credit hours)
Inspired by the university teaching hospital model, the NC State Entrepreneurship Clinic is a place where students, faculty, entrepreneurs, and service providers go to teach, learn and build the next generation of businesses in Raleigh. Each person in this class will take on the role of "Clinic Lead" managing groups of undergraduate students working with clients of the NC State Entrepreneurship Clinic during the semester developing ideas, evaluating options, and providing insights to emerging ventures.

Typically offered in Fall and Spring
MBA 580 Creating Value in Organizations (3 credit hours)
Process-based approach to creating high value in existing organizations by understanding strategy formulation and implementation. The approach also will be applied to entrepreneurs in new venture startups as well as organizations managing innovation and

Typically offered in Fall, Spring, and Summer

MBA 582 Sustainability and Business (3 credit hours)
Explore the current sustainability trends. Learn how businesses are integrating sustainability into their strategies. Gain an understanding of the tools businesses are using to operate businesses in a sustainability manner. Experience current and evolving

Typically offered in Fall only

MBA 585 Current Topics in BioSciences Management (3 credit hours)
Business processes and strategies across the global BioSciences value chain, including the R&D realities, product life cycles, key elements of product discovery and development, intellectual property, regulatory trials, government approval, production, sourcing, logistics, sales, marketing and customer service. The complete value chain of a new biotechnology-based product.

Typically offered in Spring only

MBA 586 Legal, Regulatory and Ethical Issues in Life Science Industries (3 credit hours)
Exploration of the unique environment in which biotechnology research is conducted and resultant drugs and products are sold. Legal restraints affecting pharmaceutical marketing and reimbursement options; regulatory issues; pre-clinical research. Laws limitation

Typically offered in Fall only

MBA 589 Jenkins Consulting Practicum (3 credit hours)
This class provides the opportunity to learn about business consulting and be part of a consulting team, helping real clients with real business challenges and market opportunities. Students will help their client organization by understanding a problem, conducting analyses, and suggesting relevant, actionable steps that clients can take to become more competitive or achieve important goals. Projects will deal with creative, complex, risky, and ambiguous issues involved in developing new products/services, serving new markets, achieving quality standards, or creating new business models in an enterprise setting.

Restriction: MBA Students Only
Typically offered in Fall, Spring, and Summer

MBA 590 Special Topics in Business Management (1-6 credit hours)
Presentation of material not normally available in regular courses offerings or offering of new courses on a trial basis.

MBA 610 Special Topics in Business Administration (1-6 credit hours)
Special topics course dealing with issues not covered in regularly scheduled courses. Restricted to MBA students.