GRADUATE MANAGEMENT BUSINESS ANALYTICS (BANA)

BANA 5000 - Introduction to Accounting Analytics (1.5 Credits)
This course is designed for an introductory level audience that does not have previous business experience and that is interested in career paths in analytics. It is an introduction to the reporting system used by businesses to convey financial information to parties outside the firm. Primary emphasis will be placed on understanding the financial reports that are the end product of this system--what they tell us and what they do not tell us about a business. The accounting principles, conventions and concepts underlying financial reporting will be examined with the objective of developing your ability to interpret financial statements.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023, Summer 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5010 - Introduction to Artificial Intelligence and Analytics (1.5 Credits)
Organizations operate in uncertain and dynamic environments, and are faced with unprecedented amounts of raw data. This course is designed to expose students to data analysis and modeling techniques for understanding business situations and improving business decisions. Specific topics that will be covered in the course include data cleaning and integration, probability and Bayes, sampling and confidence intervals, A/B testing, regression, and decision trees.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023, Summer 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5020 - Microeconomics (1.5 Credits)
All functional areas of business-accounting, finance, marketing, and production-employ microeconomic techniques and principles. The goal of this course is threefold. First, it teaches the economic techniques and principles utilized in the functional areas. Second, it introduces the notion of a market, and teaches the role of market forces in determining the opportunities facing individuals and firms. Third, it teaches students how to think like an economist. The course is divided into three parts: Part I focuses on the basic ideas concerning how markets operate, including topics such as consumer behavior, costs of production, and the operation of what are called perfectly competitive markets. Part II considers market power, i.e., what happens when rather than being a price taker each firm faces its own downward sloping demand curve. Part III considers additional topics including the decision to produce or purchase an input and the role of contracts in business decision making.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023, Summer 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5030 - Introduction to Marketing and Marketing Analytics (1.5 Credits)
This course is designed for an introductory level audience that does not have previous business experience and that is interested in career paths in analytics. It introduces you to the fundamental concepts of marketing that are relevant to marketers and analytics professionals.
Last Four Terms Offered: Fall 2025, Fall 2024, Fall 2023, Fall 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5040 - Teamwork and Collaboration (1.5 Credits)
This course applies cutting edge behavioral science findings to develop your teamwork and collaboration capabilities for working effectively in an organization. The course is designed to provide you with concepts and competencies to help you throughout your careers. The concepts will include both time-tested ideas and very recent findings, putting you at the cutting edge of thinking in management and organizational behavior. But learning the lessons intellectually is the easy part. You will also have the chance to practice and experiment with these ideas. Through class exercises, cases, and assignments, you will have the opportunity to turn the concepts into competencies.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023, Summer 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5060 - Introduction to Finance Analytics (1.5 Credits)
This course is designed for an introductory level audience that does not have previous business experience and that is interested in career paths in analytics. It is meant to give you a strong base in finance that can be used in your professional career as well as give you the background necessary for Fintech and usage of analytics in Finance. The topics we cover include the time value of money, the methods and principles of capital budgeting, interest rates and bond valuation, stock valuation, how to characterize risk, and how to calculate the cost of capital.
Last Four Terms Offered: Fall 2025, Fall 2024, Fall 2023, Fall 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5070 - Data Visualization – Tools, Practice and Application (1.5 Credits)
Last Four Terms Offered: Fall 2025, Fall 2024
Schedule of Classes (https://classes.cornell.edu/)

BANA 5080 - Introduction to Operations Analytics (1.5 Credits)
This 1.5 credit course is based on the MBA Core Course NCC 5080 Managing Operations. It has been adapted to an introductory level audience that does not have previous business experience and that is interested in career paths in analytics. In this course, we shall study the methods involved in the DESIGN, CREATION, and DELIVERY of products and services in all types of industries, manufacturing, supply chains, retailing, financial services, and technology.
Last Four Terms Offered: Fall 2025, Fall 2024, Fall 2023, Fall 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5160 - Capstone Project (2 Credits)
The Capstone Project course is a semester-long course that represents the culmination of student learning throughout the MSBA degree program. The course involves a data intensive team project in the respective concentration chosen by each student, i.e., finance analytics, marketing analytics, operations and supply chain analytics, or business analytics. Students are expected to work with the data sets throughout the semester to achieve performance according to various project milestones. In this work, they are expected to focus on designing their project goals in order to obtain business-relevant descriptive, predictive, and prescriptive insights, and applying the tools and techniques learned in various required and elective courses to achieve these goals. The course will culminate in final presentations and report out in a residential week at Cornell University's Cornell Tech campus.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 5165 - Conversations in Business Analytics (0.25 Credits)
In this course, students will be exposed to industry applications of business analytics through guest speakers on different topics in different industries. The course will be spread over all four semesters of the MSBA program. Students are expected to do the readings for each lecture, participate actively, and submit a learnings and reflections paper after the sessions.
Last Four Terms Offered: Spring 2026, Fall 2025, Summer 2025, Spring 2025
Schedule of Classes (https://classes.cornell.edu/)

BANA 5205 - Digital Business and Retail Operations (1.5 Credits)
This course addresses the paradigm of data-driven and digital operations for maufacturing, services, retail, and e-commerce businesses. Students in the course will explore methods required for the digitalization of businesses, such as data-driven automation, experiment design, predictive and prescriptive analytics, and impact on financial performance, using real-life examples, datasets, and applications.
Last Four Terms Offered: Spring 2026, Spring 2025, Spring 2024, Spring 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 5210 - Natural Language Processing in Finance (1.5 Credits)
This course will teach how to use natural language as an input to machine learning algorithms with the goal of modeling topics across businesses and the public equity landscape. Students will gain a comprehensive understanding of ML by seeing its applicability in investing. They will learn foundational aspects of natural language processing, how it fits into the field of analytics, and ways that NLP is used to manage an investment portfolio. Professor Meredith will teach practical techniques students can use for working with text, but will also teach them skills that go beyond just text processing, such as data manipulation using Pandas, using SQL to ingest data into a Python framework, and working with common ML algorithms and how to tune their hyperparameters. Students will walk away with analytical techniques for evaluating models and the core skill of exercising human judgment in evaluating model performance. Ultimately, students will apply all of these concepts by setting up a successful machine learning project on their own.
Last Four Terms Offered: Spring 2026, Spring 2025, Summer 2024, Summer 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 5250 - Machine Learning for Investment (1.5 Credits)
Last Four Terms Offered: Spring 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 5440 - Introduction to Data Programming (1.5 Credits)
This is a 1.5 credit course foundational for the MSBA Program. The purpose of this course is to expose students to the programming environment in Python and provide them knowledge and familiarity with different programming concepts such as objects and classes, functions, recursion, computational efficiency, types of variables, data frames, lists, and working with files.
Last Four Terms Offered: Fall 2025, Fall 2024, Fall 2023, Fall 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5670 - Management Writing for Business Analytics (1.5 Credits)
The broad course goal for Management Writing is simple: to help students improve their writing and become an effective writer within the workplace. Whether we refer to this endeavor as workplace writing, management writing, business writing, or anything else, the main focus remains on practical writing that influences decision making.
Last Four Terms Offered: Fall 2023, Fall 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 5680 - Management Presentations with Data (1.5 Credits)
Students will consider and implement techniques for effective speaking by analyzing and defining the purpose of a message and evaluating the intended audience and its needs. Students will practice methods and techniques that generate effective content in presentations while embracing personal strengths and challenges in non-verbal messaging to inspire and motivate listeners.
Last Four Terms Offered: Spring 2026, Spring 2025, Spring 2024, Spring 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 6020 - Managerial Reporting for Business Analytics (1.5 Credits)
This course will teach students how to improve business performance through better accounting. Students will practice the tools to develop key performance indicators (KPIs) and reporting systems to improve the performance of managers and units all across 21st century organizations that are increasingly governed by algorithms.
Last Four Terms Offered: Spring 2025, Spring 2024, Spring 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 6070 - Designing and Building AI Solutions (1.5 Credits)
We will learn the terms of Data Science / AI. We will learn the process of how AI works. We will learn the most basic ML / AI tools ranging from log. regression to deep learning. Data and AI can create a competitive advantage, but only if utilized correctly. Therefore, we will learn a good deal about data-driven business models. AI is changing our society. It's happening right now, and it's shifting global power. We will discuss the risks and issues.
Last Four Terms Offered: Spring 2026, Summer 2025, Summer 2024
Schedule of Classes (https://classes.cornell.edu/)

BANA 6260 - Consumer Behavior (1.5 Credits)
How can we best guess whether a new product or service will be a hit with customers? Now more than ever, business managers need data-driven insights to predict exactly how consumers will make their buying decisions, and human behavior is at the heart of this puzzle. In this course, you will assess why many common approaches to gauge purchase decisions are not effective. Using many popular products as examples, you will examine how psychology plays a role in how customers behave, applying concepts such as heuristics and biases. You will be introduced to the three key drivers of consumer behavior - attention, emotion, and coherence - and determine how they impact customer behavior. Finally, you will gain applicable consumer behavior insights to help shape your branding and pricing strategies. By understanding why customers act the way they do, you and your teams can inform practices to more accurately and successfully bring your new product or service to market.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 6340 - Customer Analytics (1.5 Credits)
The term Customer Centric is synonymous with proactive business strategy worldwide. Primarily due to advances in technology, we are experiencing a fundamental shift in business, i.e., the shift from focusing on the product towards focusing on the individual customer as the most critical unit of analysis, in both the Business-to-Business (B2B) and Business-to-Consumer (B2C) sectors. This course aims students to understand the analytical tools for different aspects of customer centricity: as part of a knowledge management system (understanding the customer), as part of the development of strategic competence as a learning organization (building a customer-centric culture), and as a foundation for corporate strategy development and execution (serving the customer).
Last Four Terms Offered: Spring 2026, Spring 2025, Spring 2024, Spring 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 6390 - Analytics for Demand Management (1.5 Credits)
Students will gain insight into how consumers make decisions through choice-based conjoint analysis; learning to extrapolate, interpret and then optimize data. A further look into digital advertising analytics will require students to explore marketing mix models and how to determine optimal pricing from conceptual and mathematical standpoints.
Last Four Terms Offered: Spring 2026, Spring 2025, Spring 2024, Spring 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 6420 - Supply Chain Analytics (1.5 Credits)
A supply chain is a network of organizations that are involved in the different processes and activities that produce value in the form of products and services. Supply chain management is an essential tool for firms to achieve profit maximization as well as social responsibility. Innovations arise from three main sources: application of information technology, reconfiguration of the supply chain network, and modification of incentives. In this course, students will explore analytical methods and innovative designs of supply chain management, and be acquainted with some practical applications. Specifically, we will address the following issues: demand forecast and seasonality, supply chain inventory analysis, cross-docking and automation, supply chain coordination, dynamic pricing and revenue management, sustainability and responsible supply chains.
Last Four Terms Offered: Spring 2026, Spring 2025, Spring 2024, Spring 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 6470 - Advanced Spreadsheet Modeling (1.5 Credits)
Most organizations are awash in data yet struggle to transform it into meaningful information. In this course, students will master the ability to analyze data efficiently; convey information effectively; and build valuable, robust, and reusable models to support decision making in a professional environment. Students will work with realistic datasets in Excel to build dashboards and models that enable them to evaluate decision alternatives. Students will come away from the program not only with advanced Excel knowledge but with the tools to effectively communicate relevant insights to stakeholders.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023
Schedule of Classes (https://classes.cornell.edu/)

BANA 6550 - Data Architecture and Acquisition (1.5 Credits)
Database management is of vital importance to any organization in the modern world given the vast amounts of data involved in business operations. To address that issue, SQL is generally employed as the high level programming language to communicate with, and manipulate, databases. The main objective of this course is to build your ability to write SQL code, ultimately enabling you to efficiently approach and solve complex business problems. By the end of this course you will have a firm grasp of SQL concepts as they relate to data analytics.
Last Four Terms Offered: Summer 2025, Summer 2024, Summer 2023, Summer 2022
Schedule of Classes (https://classes.cornell.edu/)

BANA 6920 - Machine Learning Applications in Business (0.75 Credits)
Businesses are increasingly turning to machine learning and data analytics to inform their decisions and solve complex problems given the recent rise of big data. Machine learning is enabling businesses on issues ranging from business strategy, to their day to day operations, powered by the ever-increasing data types such as social media, web and search traffic, and online reviews. The purpose of this course is to provide students with an introduction to the machine learning methods and explore how to derive meaningful actionable insights from data. The types of methods students will practice in this course include regression (including logistic regression), classification, and clustering.
Last Four Terms Offered: Spring 2026, Summer 2025, Spring 2025, Summer 2024
Schedule of Classes (https://classes.cornell.edu/)