FIN 524: Asset Pricing
This course will give students an overview of asset pricing theory, estimating asset pricing models, pricing options and other derivatives. Topics covered will include Consumption-Based Pricing Model and Discount Factors; Mean-Variance Frontier and Beta Presentations; Factor Pricing Models(Capital Asset pricing Models and Arbitrage Pricing Theory); OLS and OLS-condition and testing of linear factor models; Hansen-Jagannathan bounds; Option pricing and Black-Scholes Formula; Term Structure of Interest Rate; Numerical methods for derivative pricing. Prerequisite: 36 credit MBA in Finance Student or MBA 502
3 credits, Letter graded (A, A-, B+, etc.)

FIN 525: Portfolio Management
This course will give students an overview of the basics of investing, portfolio management, and risk management, from the perspective of efficient markets theory. Topics covered will include the institutions of the modern financial system and the types of assets available for investment; models of risk, the risk-return tradeoff and utility; optimal portfolio choice; the Capital Asset Pricing Model; multifactor models of return; portfolio evaluation metrics; basic dynamic portfolio management strategies; the efficient markets hypothesis, and possible departures from market efficiency. Prerequisite: 36 credit MBA in Finance Student or MBA 502
3 credits, Letter graded (A, A-, B+, etc.)

FIN 530: Derivatives
The main focus of this course is in the area of financial derivatives. We will show managers how to use financial derivatives to manage their risk management issues and how firms meet their financial objectives utilizing financial derivatives. This course will also explain financial option models, which can be used to help firms maximize value by improving decisions relating to capital budgeting, capital structure, and most importantly risk management concepts. This course will deal with a number of related topics associated with financial derivatives, including forward contracts, futures contracts, option contracts, and interest rate, currency, and credit default swap contracts. Prerequisite: Enrolled in FNMBB or MBA 502
3 credits, Letter graded (A, A-, B+, etc.)

FIN 536: Financial Management
How managers should interface with accounting and finance departments and how firms meet their financial objectives. Financial tools and techniques, which can be used to help firms maximize value by improving decisions relating to capital budgeting, capital structure, and working capital management are explained. Related topics include multinational financial management, risk management, and mergers and acquisitions. Prerequisite: MBA 502 or FIN MS or 36 credit MBA in Finance Student
3 credits, Letter graded (A, A-, B+, etc.)

FIN 539: Investment Analysis
Modern investment and traditional approaches to investment valuation, selection and management. Modern investment theory, including asset pricing models and efficient market hypotheses are explained. Traditional approaches to stock and bond selection, including fundamental analysis and technical analysis, will be explained in detail. Investment management strategies for both individual and institutional investors will be developed and discussed. Prerequisite: MBA 502 or FIN MS or 36 credit MBA in Finance Student
3 credits, Letter graded (A, A-, B+, etc.)

FIN 540: Probability and Statistics for Finance
A survey of probability theory and statistical techniques with applications to finance situations. Topics covered include regression; binomial, Poisson, normal, exponential, and chi square random variables; tests of hypotheses; confidence intervals; tests; and analysis of risk, variance, regression, and contingency tables. Prerequisite: MBA 502 or FIN MS or 36 credit MBA in Finance Student
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated 1 times FOR credit.

FIN 541: Bank Management
The goal of the course is to introduce students to the banking industry and develop skills necessary to effectively manage a financial institution. Students will learn how to analyze bank performance, liquidity, and capital adequacy. Students will also learn how to measure various financial risks associated with financial intermediation, and how to manage those risks using asset-liability management techniques, financial derivatives, and other hedging tools. Prerequisite: MBA 502 or Admission to the MS in Finance or 36 credit MBA in Finance
3 credits, Letter graded (A, A-, B+, etc.)

FIN 545: Capital Markets and Financial Institutions
Financial institutions and capital markets form the basis of the financial system in our global economy. Capital markets are the conduits in which capital flows through financial institutions to a network of organized and over the counter markets. Students will learn how many of these markets work in tandem to propel our economy forward. Topics include money markets, foreign exchange markets, derivative markets, the banking industry and the business of banking. The role of money in the capital markets and a variety of financial products offered by financial institutions will be explained. Prerequisite: MBA 502 or FIN MS or 36 credit MBA in Finance Student
3 credits, Letter graded (A, A-, B+, etc.)

FIN 547: Fundamentals of Fixed Income Analysis
A concrete understanding of the fundamentals of fixed income security analysis. Study of the basics of bond analysis, such as the relationship between the price and yield of a bond, the sensitivity of a bond's price to changes in yield, and measuring the total return on a bond. We will analyze the determinants of interest rates and how different market participants interact. Trading strategies, evaluate their risk, and perform ex-post analyses will be discussed. Prerequisite: MBA 502 or 36 credit MBA in Finance Student
3 credits, Letter graded (A, A-, B+, etc.)

FIN 549: Risk Management
This course focuses on mathematical and statistical methods to measure financial risk and to hedge the risk using derivatives. Students study simulation methods to measure risk, numerical methods for portfolio optimization, and hedge the portfolio risk using futures and options. They will apply the stochastic process model with time-varying volatility to the risk management. Students will have a critical view of the classical market model and study various alternative probability models to capture the "black swan" event of the financial market. Finally, students will have an opportunity to develop their own risk management system using numerical software developing tools with current market data. Prerequisite: Co-requisite MBA 502 or Admission to the MS in Finance or 36 credit MBA in Finance
3 credits, Letter graded (A, A-, B+, etc.)

FIN 552: Mergers & Acquisitions
This course focuses on hands-on insights into the practice of corporate value creation in the form of mergers and acquisitions (M&As). The techniques and methodologies to be developed to effectively understand corporate valuation and make
FIN 562: Data Analysis for Finance
Recent innovation of information technology along with the fast growth of applications on the Internet have resulted in an explosion of financial data, new ways of data collection and storage, as well as additional opportunities for business and research based on the data. This course enables students to analyze financial data based on traditional financial models. The major topics include asset pricing, capital budgeting, risk management, pension fund management, portfolio analysis, and stock hedging. Students will learn (review) the models with a focus on their implementation using Microsoft Excel, Matlab, or other programming languages. In addition, the basic statistical models, such as regression, time series models and probability models will be used. ¿Big Data¿ (data mining) technology will be introduced with a focus on financial data analysis. The main topics include classification, clustering, association analysis and anomaly detection. The key objectives of this course are: (1) to review the classical financial models and statistical models; (2) to teach the concepts of data mining with a focus on financial applications; (3) to provide students extensive hands-on experience in applying the concepts in financial data applications. Prerequisite: MBA 502 or 36 credit MBA in Finance Student; FIN 540 3 credits, Letter graded (A, A-, B+, etc.)

FIN 576: Real Estate Finance
This course is not a lesson on how to get rich quick in real estate with no money down. It will be a study of the major aspects of real estate finance, user decision making and investment from the perspective of corporate, private, and public owners; investors; and users. Commercial properties will be emphasized. The course begins with an overview of the fundamentals of commercial real estate and builds on these concepts as we consider the forces that influence the cyclical, fragmented, and inherently local business of real estate. These foundation concepts are further considered in detail in a series of four case studies that will be completed by the students and discussed in class by the instructor. The course will expose students to current ¿real world¿ real estate finance, user decision making and investment situations. The course is case-based, and students will be challenged to think on their feet in class. Students will have the opportunity to develop their business presentation skills through case discussions and project presentations. Prerequisite: MBA 502 or 36 credit MBA in Finance Student 3 credits, Letter graded (A, A-, B+, etc.)

FIN 578: Behavioral & Social Finance
This course studies the concepts, evidence, and applications of behavioral and social finance theories to understand and improve individual and managerial financial decision-making and the outcomes for firms and markets. Topics include investors¿ wants, cognitive and emotional heuristics and errors, behavioral portfolio construction, nudging personal finance management, impacts of investor psychology and social interactions on financial markets, professional ethics, values and socially responsible investing, ESG, etc. The course integrates financial analysis and financial planning with Excel and coding using programs like Python. Prerequisite: Co-requisite MBA 502 or Admission to the MS in Finance or 36 credit MBA in Finance 3 credits, Letter graded (A, A-, B+, etc.)

FIN 580: Financial Modeling
This course focuses on performing a research project related to current issues in the financial market. Students are requested to make and join a group project. The topics of the research project must be related to quantitative analysis in finance, and the results must be quantitatively verified. To do this, probability models, time series models, stochastic process models, and simulation methods can be applied. To solve a complex system problem, students may need to use parallel computing, cloud computing, machine learning, and artificial intelligence. Solutions are necessary to be implemented by advanced programming languages, for instance Matlab, R, Python, Java, or C++. Prerequisite: Admission to the MS in Finance and completion of MBA 502, FIN 540, FIN 539, and FIN 541 3 credits, Letter graded (A, A-, B+, etc.)