

## Investments

FIN 423, Fall 2023 - Goizueta Business School, Emory University

**Instructor:** William Mann    **Teaching assistant:** Haoyuan Lin    **Office hours:** Wednesdays 1-3pm.

### Course overview:

This course will cover the fundamentals of measuring investment performance and building optimal portfolios within the traditional asset classes of equities, fixed income, and Treasuries. We will cover portfolio optimization, the CAPM, and the evidence on several well-known anomaly strategies in equities and fixed income that have historically outperformed the CAPM required rate of return.

The main goal of the course is to prepare students to work in the areas of portfolio management, equity research, and investment banking. Even for those who will not continue to work in these areas, the course will teach you to be an informed investor and consumer of news about financial markets.

The course is divided into three sections:

1. Traditional asset classes and fund structures: We will describe the main asset classes on which we will focus, how they are traded, and the basic economics driving their prices. We will highlight the advantages and disadvantages of various fund structures, and how to assess fund performance.
2. Diversification, mean-variance analysis, and the CAPM: We will highlight the benefits of diversification, the classic mean-variance approach to portfolio construction based on this insight, and how mean-variance analysis leads us to the CAPM as a model for required returns.
3. Multifactor risk models and factor investing: We will examine how various style-based strategies appear to offer attractive returns according to the CAPM, how they are packaged and sold as factor strategies, and how multifactor risk models help us to avoid reinventing already-known strategies.

**Textbook:** *Investments* by Bodie, Kane, and Marcus, 13<sup>th</sup> edition (McGraw Hill).

**Course grade:** Goizueta has a distribution for course grades that I will follow as closely as possible. Your grade will be based on the following components:

- Five homeworks, each worth 8% of the course grade. Download and submit via Canvas.
  - Each is due at 8:00 AM, Atlanta time, on the dates listed on the next page.
  - You may work individually, or in groups of up to four members.
- Two midterm exams and a final exam, each worth 20% of your grade.
  - The midterms will be in-class on **Thursday, September 26** and **Thursday, November 7**.
  - The final exam will be at a time and place to be determined by the registrar's office.
  - The exams are **not cumulative**. Each one only covers the most recent section of the course.

**Technology:** I will use a combination of Microsoft Excel spreadsheets and Python code in Jupyter notebooks. All materials will be posted to Canvas. You should complete your homework in Excel. You can run all the Python code on your own computer, and I encourage you to try, but this is not required.

**Accommodations:** Students who are registered with the Department of Accessibility Services (DAS) should submit their accommodation requests to me within the first week of classes. Additionally, students who have accommodations that include assessments and exams must register accommodation requests with the BBA Program Office. The form to do so can be found [here](#).

**Honor code:** Any apparent violations of the GBS Honor Code will be referred to the Honor Council.

*This version: August 29, 2024*

**Schedule of topics for each week of the semester.** See Canvas for more detailed information.

Module 1: Traditional asset classes and fund structures

<i>Date</i>	<i>Plan</i>
Thursday, August 29	Overview. Discussion of “Do Stocks Outperform Treasury Bills?”
Tues, Sep 3 / Thurs, Sep 5	Investment returns, portfolios, and indexes.
Tues, Sep 10 / Thurs, Sep 12	Fund structures and fund performance measures.
Tues, Sep 17 / Thurs, Sep 19	<b>Tuesday: Homework 1 due by 8 AM</b> (8% of course grade). Thursday: Fundamental investing, mutual fund performance.
Tues, Sep 24 / Thurs, Sep 26	Tuesday: Review for the midterm exam. <b>Thursday: Midterm exam #1 in class</b> , on all topics to date. (20%)

Module 2: Diversification, mean-variance analysis, and the CAPM

<i>Date</i>	<i>Plan</i>
Tues, Oct 1 / Thurs, Oct 3	Tuesday: Backtesting strategies. Evidence on style-based strategies. Thursday: No class
Tues, Oct 8 / Thurs, Oct 10	Diversification and mean-variance analysis.
Tues, Oct 15 / Thurs, Oct 17	Tuesday: No class <b>Thursday: Homework 2 due by 8 AM</b> (8%)
Tues, Oct 22 / Thurs, Oct 24	Portfolio statistics and the Capital Asset Pricing Model (CAPM).
Tues, Oct 29 / Thurs, Oct 31	Tuesday: Evidence on style-based strategies and the CAPM. <b>Thursday: Homework 3 due by 8 AM</b> (8%)
Tues, Nov 5 / Thurs, Nov 7	Tuesday: Review for the midterm exam. <b>Midterm #2 in class Thursday</b> , on topics since the first exam (20%)

Module 3: Multifactor risk models and factor investing

<i>Date</i>	<i>Plan</i>
Tues, Nov 12 / Thurs, Nov 14	Short sales and dollar-neutral investment strategies
Tues, Nov 19 / Thurs, Nov 21	Evaluating investment performance with multifactor risk models. <b>Thursday: Homework 4 due by 8 AM</b> (8%).
Tues, Nov 26 / Thurs, Nov 28	Factor strategies based on profitability and quality. Thursday: No class
Tues, Dec 3 / Thurs Dec 5	Tuesday: Guest speaker Ward Bortz of Angel Oak Capital Advisers. <b>Thursday: Homework 5 due by 8 AM</b> (8%).
Tuesday, December 10	Review for final exam and conclude course.

**Final exam (20%).** Date, time, and location yet to be determined by the registrar (as of August 22).