Investments
(November 2\textsuperscript{nd}, 2017)

Fall 2018
Location: TBA
Schedule: Tue, Thu 2:30 – 4pm
Prof. Ana Babus
Seigle 303
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This course surveys recent developments in investments and portfolio management. The course aims to provide students with a structure for thinking about investment decisions from the perspective of a portfolio manager. We start by understanding fundamental concepts for investment theory: modern asset valuation and portfolio selection under uncertainty. We will proceed to investigate various sources of risk which financial institutions are exposed to, such as interest rate risk, credit risk and liquidity risk, and study how financial institutions manage these risks. The course will also introduce student to investment evaluation techniques. We will explore recent innovations in financial markets, as well as various frictions that arise in markets. Students will have the opportunity to apply concepts learned in class on a virtual investment and trading platform, StockTrak.

1. Course Materials

The required materials for the course are the lecture notes (complemented by discussions and amendments in class).

There are also two optional textbooks (partial readings will be recommended in due time):


Additional references covering the mathematics of financial derivatives, general asset pricing knowledge and topics in fixed income are listed below:


2. Grading

- Final exam (closed book) 40%
- Midterm (closed book) 30%
- Coursework 30%
3. **Pre-requisites**

**Courses:** Math 2200, Econ 4011

Statistics background: I expect students understand random variables and distributions. They must be familiar with concepts like expectation, variance, and covariance, and knowledge of conditional moments is recommended.

Economics: Students should be familiar with a utility function and budget constraint and can solve utility maximization problems (i.e. they are familiar with Lagrange multipliers).

Math: Students need basic calculus, and multivariate calculus.

4. **Course Topics**

- Modern portfolio theory: Consumption based asset pricing & Uncovering arbitrage.
- Portfolio Management: Active and Passive Tools.
- Portfolio performance evaluation.
- The cross section of stock returns.
- Term structure of interest rates & Interest Rate Risk.
- Risk management methods.
- Derivatives, securitization structured finance.
- Market efficiency and limits to arbitrage.
- Financial crises.