440.640 Financial Economics

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**Office Hours:** By Appointment

**Overview**

This course is intended to provide students with a broad and comprehensive understanding in a range of topics pertaining to financial economics. Starting from a foundation of theoretical principles we will consider pricing basic financial instruments such as stocks and bonds as well as more complex asset pricing questions such as the valuation of options. We then consider topics of corporate finance and investigate issues of project finance and investment, capital structure of the firm, and corporate governance. Throughout the course we will identify how the key concepts such as risk and time discounting serve to tie all of the disparate topics within finance into a coherent whole. Students will be expected to have taken 440.601 Microeconomic Theory and 440.606 Econometrics and thus have a serviceable knowledge of both calculus and data analysis methods. A working familiarity with Word and Excel is also expected. Students should also be willing and able to actively engage in classroom discussions.

**Topics**

- Time value of money, discounting, and net present value
- Valuation of bonds and stocks
- Risk, return, and portfolio choice
- Capital asset pricing model and efficient markets hypothesis
- Options and derivatives
- Black-Scholes pricing model
- Budgeting and investment
- Capital structure
- Liquidity and risk management
- Corporate governance

**Textbooks**

(any recent editions of these texts are acceptable)  
*Principles of Corporate Finance* by Brealey, Myers, and Allen (required)  
*Asset Pricing* by John Cochrane (optional)  
*Theory of Corporate Finance* by Jean Tirole (optional)

**Grading**

Midterm 30%  
Final 40%  
Assignments and Participation 30%