FIN 610 is an introduction to the foundations of modern financial economics. The focus throughout will be on the development and interpretation of discrete- and continuous-time models of asset pricing and capital markets. The course is primarily theoretical and is intended for Ph.D. students in finance and economics. While there are no formal prerequisites for enrolling in this course, it will be assumed that you have a working knowledge of certain calculus, linear algebra, probability and statistics concepts.

The course grade will be based on the following: regular homework assignments (60%), and a final exam (40%). Homework will be assigned three times during the semester. Each homework will be 20% of your course grade. Students are encouraged to discuss the homework problems with other students, but should work through all of the mathematics individually, and all students must turn in separate assignments. The homeworks will be usually due in two weeks after they are assigned. I will post the solutions to the homeworks on SuCourse once they are due. No late homework submissions are accepted. The final exam is going to be an open-book exam.

By design, this is fairly a challenging course by content. The course method is more lecture-based rather than discussion-based and it is extremely important that you take good notes in the classes, review the notes on a weekly basis and clear any confusions about the course material as soon as they arise. You are not allowed more than 2 unexcused absences throughout the semester. Our class on March 3rd is going to be cancelled.

Below is a tentative list of topics to be covered.

1. Expected Utility and Risk Aversion
2. Mean-Variance Analysis
3. CAPM, Arbitrage and Linear Factor Models
4. Consumption-Saving Decisions and State Pricing
5. Multiperiod Discrete-Time Models of Portfolio Choice and Consumption
6. Multiperiod Market Equilibrium
7. Basics of Derivative Pricing
8. Diffusion Processes and Ito’s Lemma
9. Continuous-Time Portfolio Choice and Consumption
10. Equilibrium Asset Returns