

INTERNATIONAL UNIVERSITY OF JAPAN
Graduate School of International Relations

Academic Year: 2016/2017

Term: Winter

Course	Course code ADC5200	Course title Investment and Asset Pricing	
Name of Instructor	Atsushi Chino		Credit Number: 2
Instructor's contact Information	Office# 329	Office Hours TBA	E-mail: achino@iuj.ac.jp
Class Schedule Day / Time	TBA		
<p>Course Description: This is an intermediate course in investment and asset pricing theory at the graduate level. This course will primarily focus on how we should determine 'fair' prices of financial assets which generate risky cash flows in future. We will start with learning static portfolio theory and discuss the concept of 'systematic risk' in financial assets. Then we will derive an equilibrium relationship between systematic risk and expected return of financial assets. Based on the static portfolio theory, we will learn several major asset pricing models such as CAPM and APT. Next, we will consider dynamic consumption-savings decisions and derive the Consumption-CAPM. In the later part of the course, we will focus on derivative securities and learn several methods to price those assets.</p>			
<p>Learning Objectives: The course introduces the theory of financial economics at the graduate level to students who are already familiar with basic concepts in finance. Prior knowledge in finance, equivalent to materials covered in corporate finance courses offered in GSIR/GSIM, will be essential.</p>			
<p>Career Relevance: This course will be relevant for students who are pursuing finance-related careers in industries or those who are responsible for monitoring financial markets in public sectors.</p>			
<p>Course Context or Rationalization: This is a theory course in financial economics and will be useful for understanding materials in other finance related courses offered in GSIR/GSIM.</p>			
<p>Delivery Methods: The course will cover selected topics of the recommended textbooks and the material will be presented in the two weekly lectures. In addition, I will assign about 3 or 4 problem sets which will closely follow the lecture material. I encourage you to work in a group to solve for problem sets, and you can turn in your answers either individually or in a group. If you turn in your answers in a group, please list the names of all group members at the top of the 1st page of your answers.</p>			
<p>Assessment: Grades will be based on the midterm exam, the final exam, and problem sets. The final exam will be cumulative. Problem sets will count for 20% of your final grade and exams will count for the remaining</p>			

80% (the midterm 30% and the final exam 50%).	
Prerequisite: Solid knowledge of microeconomics, calculus, linear algebra and statistics, in addition to basic knowledge in finance, will be required.	
Textbook(s)	<p>No required textbook. There are several recommended textbooks listed below.</p> <p>Recommended:</p> <ul style="list-style-type: none"> ● Investment Science, International Edition, by D. G., Luenberger, 2009, Oxford University Press, 978-0195391060. ● Principles of Corporate Finance, 12th Edition, by Brealey, Myers, and Allen, McGraw Hill, 2016, 978-1259253331, Global Edition. ● Theory of Asset Pricing, 1st Edition, by G., Pennacchi, 2007, Prentice Hall, 978-0321127204. ● Intermediate Financial Theory, 3rd Edition, by J., Danthine and J., Donaldson, 2014, Academic Press, 978-0123865496. ● Asset Pricing and Portfolio Choice Theory, 1st Edition, by Kerry Back, 2010, Oxford University Press, 978-0195380613
Class Outline	<ol style="list-style-type: none"> 1. Introduction to the theory of finance 2. Fixed income securities (Duration/Convexity) 3. Fixed income securities (Term structure of interest rates) 4. Fixed income securities (Forward interest rates) 5. Expected utility (Risk aversion) 6. Expected utility (Risk premium) 7. Mean-variance static portfolio theory (Mean/variance of portfolio returns) 8. Mean-variance static portfolio theory (Diversification) 9. Mean-variance static portfolio theory (Markowitz problem) 10. Mean-variance static portfolio theory (Two-fund/one-fund theorems) 11. CAPM (Market portfolio) 12. CAPM (Systematic risk and idiosyncratic risk) 13. Arbitrage pricing theory 14. Dynamic asset pricing theory (Consumption and portfolio choices) 15. Dynamic asset pricing theory (SDF and Consumption CAPM) 16. Introduction to derivative securities 17. Option pricing in discrete time (Binomial model) 18. Pricing of European-type options through replication 19. Pricing of European-type options through risk neutral probability 20. Pricing of American-type options
Others (if any)	