## Investments

Course Syllabus, Spring 2010

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This is an introductory course designed for second-year undergraduate students with finance major. Its purpose is to get students familiar with both the theory and practice in financial markets and to prepare them for advanced and specialized courses such as Futures and Options Markets, Bond Markets, and Management of Financial Institutions. The contents of this course will follow closely the required textbook, *Investments*, by Zvi Bodie, Alex Kane, and Alan J. Marcus (McGraw-Hill), the 7th edition.<sup>1</sup> Although some chapters will not be covered in class, they will be assigned as background readings, and will be tested in the mid-term and final exams. Other than the textbook, lecture notes will be posted at the course website regularly.

The course proceeds in four steps. We shall first look at the major financial markets and instruments in the world, discuss their trading mechanisms, and emphasize their role of helping people attain a higher economic efficiency and individual welfare. Second, we shall review some basic ideas in the decision theory under uncertainty and the two classic static asset pricing theories, the Capital Asset Pricing Model and the Arbitrage Pricing Theory. In the third part of the couse, we shall first introduce the notion of market efficiency (and present some empirical evidence) and then examine in detail the markets for fixed-income securities, for equity, and for derivative assets such like futures and options. Here pricing and hedging are both the emphases. In the last part of the course, we shall discuss active portfolio management strategies as well as performance evaluation of portfolio managers.

 $<sup>^{1}</sup>$ The student representative should deal with the purchase of the textbook on behalf of the class; call Hwa-Tai Publishing Co. at 2162-1217 and mention my name for discounts.

There will be homework assignments due regularly, which together with an in-class midterm and final examinations determine a student's grade. The following is a tentative schedule.

| Week no. | Contents  |
|----------|---|
| 1        | Math Review (Lectures M1-M3)                                |
| 2        | Overview (ch.1-5, Lecture 1)                                |
| 3        | Expected Utility Theory (ch.6, Lecture 2, Part I)           |
| 4        | Expected Utility Theory (continued)                         |
| 5        | Risk Sharing and Prospect Theory (ch.6, Lecture 2, Part II) |
| 6        | Risk Sharing and Prospect Theory (continued)                |
| 7        | Portfolio Theory (ch.7-8, Lecture 4)                        |
| 8        | CAPM (ch.9, Lecture 3)                                      |
| 9        | CAPM (continued)  |
| 10       | APT (ch.10, Lecture 3)                                      |
| 11       | Midterm Examination   |
| 12       | Derivative Assets (ch.20-23, Lecture 5)                     |
| 13       | Derivative Assets (continued)                               |
| 14       | Stock Pricing (ch.18, Lecture 6)                            |
| 15       | Bond Pricing (ch.14, Lecture 7)                             |
| 16       | Yield Curve (ch.14-16, Lecture 8)                           |
| 17       | Portfolio Management (ch.24-26)                             |
| 18       | Final Examination   |