

California Polytechnic State University

Orfalea College of Business

Business 439: Fixed Income Securities and Markets

Winter 2012

Course Outline (5 pages)

Instructor: Dr. Bing Anderson
Office: 03 – 340
Telephone: (805) 756 – 2564
Facsimile: (805) 756 – 1473
Email: bianders@calpoly.edu
Class Time: Tu/Th 4:10 PM – 6:00 PM
Office Hours: Wed. 10:00 AM – 12:30 PM, or by appointment
Prerequisites: Business 342
Class Web Page: <http://www.calpoly.edu/~bianders/>

REQUIRED TEXTBOOK:

Fixed Income Securities: Tools for Today's Markets, 2nd Edition, by Bruce Tuckman, 2002.

COURSE DESCRIPTION/OBJECTIVE:

This course covers the mathematical foundation for studying fixed income securities and markets. It emphasizes traditional bond and term structure concepts crucial to understanding the functioning of these markets.

Development of analytical skills for properly valuing fixed income securities. Bond pricing, discount factors, yields, and arbitrage; spot rates, forward rates, interest rate term structure and yield curve; one-factor measures of price sensitivity; key rate, bucket exposure, and regression-based hedging.

Pedagogical style will be a combination of conceptual lectures, practical examples, and problems. The lectures will focus on the description and understanding of the theoretical concepts. The practical implications will be analyzed through examples.

GRADING DISTRIBUTION:

Midterm	24%
Project	20%
Participation	15%
Final Exam	36%
Reading Research Papers	5%

Midterm (24%)

The midterm will be a closed-book exam. Only non-programmable calculators can be used during the exam. It will be in class, tentatively on Feb. 16, for 90 minutes.

Participation (15%)

Participation grades will be assigned entirely at the discretion of the instructor, and will be based on a variety of components including *attendance, attitudes, contribution to class discussions, quality of the contribution, respect for learning and the learning environment*, etc.

Homework Assignments (0%)

You are required to read the chapters of the textbook that we cover in class each week. In addition, homework assignments, as well as the solutions, are posted on the class web site.

Reading Research Papers (5%)

One or two research papers will be assigned during the quarter for you to read in groups of 4 to 5 students. Each group will submit a one- or two- page report, providing a summary of the paper in your own words. The report should also contain a list of things in the paper which you do not understand, and what you think they might mean or they might be. Any suggestions or critique of the paper may also be included in the report.

Project (20%)

Two projects will be assigned during the quarter for you to work on in groups of 4 to 5 students. Each group will submit one report.

Final Exam (36%)

The final exam will also be closed-book. Again, only non-programmable calculators can be used during the exam. The final exam will cover the entire course, although the part not tested in the midterm will be emphasized.

Make-up Exams

No make-up exams will be given without prior consent of instructor and documentation to show why the exam cannot be taken at the scheduled time. In the rare cases of genuine emergencies, documentation must be submitted to and approved by the Finance Area office and the Dean's office. A 10% penalty will be automatically applied to any grades earned from make-up exams.

GRADE CONVERSION:

The finance area currently uses a standardized grading policy for all finance classes. That is, the proportion of A's, B's, C's, etc must adhere to general guidelines. Specifically, the policy is:

A's Maximum of 25%

C's Range of 20% to 40%

D's and F's combined: *Expected* minimum of 10%, but could be 0%.

The policy is employed to insure that (i) the grade of A is reserved for outstanding performance, and (ii) any student who performs poorly will receive a D or F. If all students perform well, no D's or F's will be given.

The phrase "*Expected* minimum of 10%" is used in the "D's and F's" category because history has shown that approximately 10% to 20% of the class typically underperforms. However, the 10% minimum is a "soft" target. That is, if the entire class performs well, then the number of D's and F's will be 0%. Of course, if there are a large number of poor performing students, then the combined number of D's and F's can exceed 10%.

COMMUNICATION PROTOCOL:

We will use the class web site for most of the handouts: announcements, lecture notes, weekly homework assignments, etc.

Email is probably the best way to ask questions besides office hours. However, because it is not a way to communicate face-to-face, clarifying details via email causes delays. So, please try to be specific about the details when asking a question via email.

During the lecture, if there is anything unclear to you, please raise a question immediately. In most cases, if time permits and the question is representative enough, I will answer it right away. Otherwise, I might defer it to after class or during office hours. However, no question is ever a bad question, and your every bit of effort in learning and inquiry is welcomed.

COURSE CONTENTS AND TENTATIVE SCHEDULE:

DATE	CHAPTER	TOPIC
Jan. 3		Introduction
Jan. 5	Ch. 1	Bond Prices, Discount Factors, and Arbitrage
Jan. 10	Ch. 1	
Jan. 12	Ch. 1	
Jan. 19	Ch. 1	
Jan. 24	Ch. 2	Bond Prices, Spot Rates, and Forward Rates
Jan. 26	Ch. 2	
Jan. 31	Ch. 2	
Feb. 2	Ch. 2	
Feb. 7	Ch. 3	Yield-to-Maturity
Feb. 9	Ch. 3	
Feb. 14	Ch. 4	Generalizations and Curve Fitting
Feb. 16		Midterm
Feb. 21	Ch. 4	
Feb. 23	Ch. 5	One-Factor Measures of Price Sensitivity
Feb. 28	Ch. 5	
Mar. 1	Ch. 5	
Mar. 6	Ch. 5	
Mar. 8	Ch. 6	Price Sensitivity Based on Parallel Yield Shifts