

FIXED INCOME
FINA - 7A97
COURSE OUTLINE - FALL 2018

INSTRUCTOR

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CLASS SCHEDULE

DAY: THURSDAY - 6 PM - 9 PM

OFFICE HOURS: MW - 1 PM - 2 PM

COURSE DESCRIPTION

This course covers models and techniques to analyze fixed income instruments. By the end of this course, students will learn (i) the basic concepts of fixed income instruments such as yield, duration, convexity; (ii) the modern empirical methodologies to describe the Treasury bond data, such as "curve fitting" and factor analysis; (iii) general understanding of the market of defaultable securities; (iv) the valuation of credit sensitive securities.

TEXTBOOK

Sundaresan, S. (2009) Fixed Income Markets and their Derivatives, Academic Press.

Other Useful Books

Martellini, L., P. Priaulet and S. Priaulet (MPP): Fixed Income Securities: Valuation, Risk Management, and Portfolio Strategies, John Wiley: The text covers materials that we will talk about in the first part of the course. The book does not cover defaultable debts and credit derivatives which are covered thoroughly in the following text.

Duffie, D., K. Singleton: Credit Risk: Pricing, Measurement, and Management: Excellent integrated treatment of the conceptual, practical, and empirical foundations for credit risk pricing and risk measurement. In my opinion it is an excellent book in which emphasis is given toward applying theory to practice

Veronesi, P. (2010): Fixed Income Securities: Valuation, Risk, and Risk Management, Wiley. Only the first part (Part I) of this book is useful for this course.

John C. Hull, Options, Futures and Other Derivatives, Prentice Hall, 2008, ISBN 0136015867: Classic book on equity and fixed income derivatives. Lots of models, and pricing methodologies. An excellent reference book to have in your library.

COURSE EVALUATION

- Excel Exercises: 40%
- Final Exam: 55%
- Participation: 5%

UNIVERSITY POLICIES

University of Houston values academic honesty. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the code of student conduct and disciplinary procedures (see <http://www.uh.edu/academics/catalog/policies>). If a student is found to commit any act of academic dishonesty during exams, he/she will automatically receive an F for the class and he/she will be reported to the Chair of the Department of Finance.

As students enrolled in courses offered by the Bauer College, you are expected to adhere to the ethical principles described in the Bauer Code of Ethics and Professional Conduct (Bauer Code), in addition to those required by the UH Student Handbook. You may review the Bauer Code by clicking on the following link - <http://www.bauer.uh.edu/centers/bcbe/bauer-code-of-ethics.php>. You may obtain a copy of the UH Student Handbook from the Dean of Students Office located in room 252 of the University Center, or by visiting the publications webpage on the Dean of Student's website at <http://publications.uh.edu/>.

If you have a disability please contact the instructor to arrange a time to discuss your situation. It would be helpful if you contact the Center for Students with Disabilities at (713) 743-5400 or online at (<http://www.uh.edu/csd>) before you do this.

CLASSROOM POLICIES

No cell phones allowed during class. Cell phones must be turned off while in class.

Tentative Course Schedule ¹
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Week 1	Overview of fixed income markets The central bank and the fed funds rate The repo market	Sundaresan: Ch-1-3, 5
Week 2-4	Term structure of interest rates (Shapes, Dynamics and Theory) Zero curve construction (Bootstrapping) Interpolation techniques Interest rate risk management (Duration and Convexity: trading strategies) Forwards and Swaps	Sundaresan: Ch-7-8 See also MPP: pages 96-102, pages 116-120 Veronesi: Ch-4-5
Week 5-7	Fundamentals of credit risk Structural models of credit risk Credit derivatives	Sundaresan: Ch-10, 18

¹ Subject to change