

**GOLDEN GATE UNIVERSITY
SCHOOL OF BUSINESS**

DBA 830 FINANCIAL THEORY AND APPLICATIONS

Summer 2009

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Office Hours Appointment only.
Classes Monday, from 6:30am to 9:30 pm
Credits 4 units.

Course Description

This course explores contemporary financial theories and investigates their applications, particularly in the field of corporate finance and risk management. Topics include portfolio theory, asset pricing models, option theory, agency theory and information asymmetry, market efficiency hypothesis. The latest development in risk management will also be discussed.

Course Objective

Keeping up with the latest development in financial theory and applications.

Main Textbooks

Copeland, Thomas E., J. Fred Weston and Keldeep Shastri. Financial Theory and Corporate Policy, 4th edition, Boston, Massachusetts: Pearson/Addison-Wesley Publishing Company, 2005.¹

Hull, John C. Options, Futures, & Other Derivatives, 7th ed. Upper Saddle Rive, Hew Jersey: Prentice Hall, 2009

Additional Texts:

Goetzmann, William N. An Introduction to Investment Theory. Online Address:
<http://viking.som.yale.edu/wil/finman540/classnotes/notes.html>

¹ A student solutions manual for this textbook can be purchased from www.amazon.com. (ISBN 0-2-1-10649-3.)

Rubinstein, Mark. A History of the Theory of Investments : My Annotated Bibliography Wiley Finance, 2006².

Hull, John. Risk Management and Financial Institutions. Upper Saddle River, NJ: Pearson/Prentice Hall, 2007.

Kennedy Peter. A Guide to Econometrics. 4th ed. Cambridge: The MIT Press.

Sanders, Anthony. Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms. New York: John Wiley & Sons, 1999.

Selected Web Sites

Baseline Scenario	(http://baselinescenario.com)
Financial Economics Network	(http://www.ssrn.com)
OSU Virtual Finance Library	http://www.cob.ohio-state.edu/dept/fin/overview.htm)

Class Administration and Assignments

1. Active participation is expected from everyone. You will take turns to lead the class discussion on assigned articles. Please read the list in this syllabus to choose the articles you would like to present to the class. Please look into the latest JF or JFE for appropriate articles.
2. The class schedule gives the reading assignments. Please read the chapters and the articles before you attend the meeting.
3. The homework assignments should be collected on the next meeting.
4. We will confirm the dates of our classes at our first meeting.

Grading	Assignments	50%
	Presentation	50%

² We will take turns to review Rubinstein’s annotated bibliographic book, starting from “the classical period; 1950-1980, as soon as everyone gets a copy of the book.

Class Schedule and Assignments³

Meeting	Topics and Readings	Assignments
1	<p>I. The Theory of Finance CWS 1. Introduction CWS 3 The Theory of Choice: Utility Theory</p> <p>II. The Portfolio Theory CWS 5: Mean-Variance Portfolio Theory</p>	<p>http://viking.som.yale.edu/will/finman540/classnotes/notes.html</p> <p>Handout: Portfolio Math</p>
2	<p>III. Capital Asset Pricing Model CWS 7. Market Equilibrium: CAPM and APT</p> <p><i>* Fama, E. and K. French, 1992, "The Cross-Section of Expected Stock Returns," <u>Journal of Finance</u> 47, 427-465.</i> <i>*"Market Efficiency, Long-Term Returns and Behavioral Finance," by Eugene F. Fama. (Online)</i></p>	<p>http://baselinescenario.com/</p>
3	<p>IV. Stochastic Behavior of Stock Prices JH 12: Wiener Processes and Ito's Lemma</p> <p>V. The Analytical Option Pricing Models JH 13: The Black-Scholes-Merton Model JH 14 Options on Stock Indices, Currencies and Futures</p>	<p>Handout: Number Crunching problems JH: 13.3, 13.8, 13.13, 13.18, 14.29.</p>
4	<p>VI. The Numerical Option Pricing Models JH 11: Binomial Trees JH 17: Basic Numerical Procedures</p> <p>JH 22: Exotic Options</p>	<p>Handout: Exotics JH: 11.9, 17.2, 17.4.</p>
5	<p>VII. Real Options JH 31: Real Options CWS 9: Multi-period Capital Budgeting under Uncertainty: Real Options Analysis</p>	

³ The above schedule and assignments are for guidance only and may change in the event of extenuating circumstances.

	<p><i>HBS: "Strategy as a Portfolio of Real Options"</i> <i>HBS: Merton's latest one.</i></p>	
6	<p>VIII. Volatility Measure JH 16. Volatility Smiles JH 19. Estimating Volatilities and Correlations. (Handout) JH* "Ch.6 Correlation and Copulas"</p>	<p>(Testing the exchange rates for British pound sterling only with GARCH(1,1))</p>
7	<p>IX. Value at Risk JH 18 Value at Risk</p>	<p>http://www.gsm.uci.edu/~jorion/oc/case.html</p>
8	<p>X. Credit Risk JH 20 Credit Risk <i>Peter Crosbie: Modeling Default Risk</i> (http://www.kmv.com/insight/index.html) KMV "EDF Case Study: Enron" (http://www.kmv.com/insight/enron.html)</p>	