

Business 751,752 - Investment Theory and Analysis

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Prerequisite: BUS 709 Financial Management, or equivalent.

Withdrawal Policy: You may withdraw with a grade of "W" anytime if you are passing ($\geq C$).

Text: Modern Portfolio Theory and Investment Analysis, Elton & Gruber (E&G), 5th Edition, John Wiley & Sons; and The Wall Street Journal.

Course Objectives: This course covers the theory and practice of investment analysis. The theory shows how financial economists think about uncertainty, risk, return, and the behavior of securities markets. The goal is to understand and apply this theory to assess risk and return, to value securities, and to thereby aid investment decisions in the real world. The focus is on market efficiency, the theory of uncertainty, portfolio theory, risk assessment, valuation, and the functioning of capital markets in a global environment. Special attention is paid to the science/art of analyzing risky investment alternatives. Through the development of theoretical models, students understand the practical techniques used by the professional investor and portfolio manager to analyze alternative risky investments. Students apply these methods to value securities of various types, with emphasis on common stocks, bonds, futures, and options.

Course Grading: The class will be divided into groups of four students each. Every group will be responsible for a weekly 2-page analyst report on the companies of the week, and two term projects (in BUS 752). Your individual grade for BUS 751 will be determined by your individual performance on a final exam, your class participation, and your group's performance on its weekly analyst reports. Your individual grade for BUS 752 will be determined by your individual performance on a final exam, your class participation, and your group's performance on two term projects and its weekly analyst reports. No late projects will be accepted. All groups will present the first term project in class (BUS 752), time permitting. Grading weights are provided below.

Class Structure: During each weekly session we will discuss material assigned for that week, and the companies-of-the-week. The list of topics to be covered each week appears below, along with assigned reading and problems for each topic. The companies-of-the-week will be the subject of a 2-page weekly analyst report by each group. This report will summarize the financial condition of these firms, discuss the firms' business, competition, and prospects for future performance. The report should conclude with a target stock price (P^*) and expected return (k^*) for each firm if bought at its current market price, along with a buy/sell recommendation, a list of reasons to buy, and another list of reasons not to buy. This weekly assignment is due through email to me, by noon on the day *before* each weekly session.

Homework: Problems are assigned for each topic, for experience in working with the concepts discussed in class. These will aid in understanding the material and in preparing for the exams.

Class Participation: If, at the end of the term, you are at the margin between two grades, your contribution to class discussion will determine whether you receive the higher or lower grade. Come to each session prepared to discuss the material and problems assigned for that lecture, and prepared to discuss the companies-of-the-week. Note that it is the quality and not simply the frequency of participation that is important.

Explanation of Term Projects I and II, for BUS 752 - Investment Analysis:

Choose a firm your group will analyze. Group Projects I and II involve research to assess the prospects for investing in this firm. Your group's work on each project will be summarized in the form of a short case (maximum of two typewritten pages). By the third week of the term, you must clear your group's choice of firm with me, to avoid duplication.

You will gather data on the daily closing price of your company's stock, and on the daily closing value of the market (e.g., for a U.S. firm, the S&P 500 index). You should also gather as much information as you can on the firm's past and current performance. Your objective in organizing this information is to provide a basis for evaluating: (i) the quality of company management; (ii) the macro environment (including the nature of competition, market share, market demand, and any upcoming events that might influence the market's assessment), (iii) projections of future earnings, (iv) the firm's capital structure, and (v) the firm's weighted cost-of-capital (see your Financial Management text). Based on this information, you will assess the firm's prospects for future performance (i.e., earnings, dividends, expected return, and risk).

You will need to evaluate the company's past annual reports, 10K's, and other information. The web is a wonderful source of information. You are also encouraged to contact firms directly for information about their current environment and performance. Other potential sources of information include reports prepared by analysts: S&P, Moody's, Value Line, and various brokerage and investment banking houses. Much of this information is available on the Web and in the library. These sources of information should be reviewed when possible, but they do not constitute a substitute for your own analysis. Information on past stock prices for individual stocks is available on the Web, in the Wall Street Journal, or on the Compustat and CRSP tapes. Use any information you can obtain, but cite your sources.

In Project I, your group will use this information in a valuation model to determine the theoretical (fair) market value of this company's stock (P^*), and the expected return (k^*) for this stock if bought at its current market price. ***On the first page of Project I you should summarize the firm's current financial condition (size, risk, accounting performance, and market performance)***. Then describe the firm's business and its past, current, and expected performance. Then provide your valuation model (e.g., following E&G, Chapter 18). This analysis should lead to a target price (P^*) and expected return if bought at its current price (k^*), and ultimately to a buy/sell recommendation. Conclude with a list of reasons to buy the company's stock, and another list of reasons to not buy the stock.

The quality of your paper (and thus your grade on Project I) will be determined by: (i) the quality and amount of relevant information you obtain, summarize, and incorporate in your valuation model; (ii) how the information is presented in your paper and used in your model; (iii) whether any new and original insight is offered; and (iv) the clarity of exposition.

Project II is a smaller (2-page) project, in which you apply statistical tools commonly used in the investment industry to analyze various aspects of risk and return for a firm. In Project II, you will use the daily data on your company's stock price and the market (e.g., the S&P 500 index) to estimate a single-index market model (E&G, Chapter 7). Your presentation should include and discuss: (i) the firm's historical beta, (ii) all the other relevant estimates for the single-index model, and (iii) a plot of the actual observations on your stock's daily return against the daily return on the market (R_{it} , R_{mt}), along with the estimated market model line (the fitted line).

Bus 751 - Investment Theory - List of Topics

(First 8 Weeks)

<u>Lecture</u>	<u>Topic</u>	<u>Assignment: Problems</u>
Aug. 28	!	
Sept. 4	Introduction	E&G - Ch. 2, 3
Sept. 11	Efficient Markets	E&G - Ch.17: 3-6, 8, 9.
Sept. 18	Utility Analysis: Certainty Utility Analysis: Uncertainty	E&G - Ch. 1: 3-6, 9-12. E&G - Ch. 10: 1-11.
Sept. 25	The Investment Opportunity Set	E&G - Ch. 4: 1, 3, 4.
Oct. 2	Efficient Portfolios	E&G - Ch. 5: 1, 4-6.
Oct. 9	The Valuation Process	E&G - Ch. 18: 1-11.
Oct. 16	Final Exam (first 90 Minutes) Earnings Estimation (last 120 Minutes)	E&G - Ch. 1-5, 10, 17, 18. E&G - Ch. 19: 1-5.

<u>Important Dates</u>	<u>Subject</u> _____.	<u>% of Grade</u>
Weekly	Group Analyst Reports	40
Sept. 18	Choose firm for group projects.	
Oct. 16	Final Exam	<u>60</u>
	Total	100

Bus 752 - Investment Analysis - List of Topics

(Second 8 Weeks)

<u>Lecture</u>	<u>Topic</u>	<u>Assignment: Problems</u>
Oct. 23	Single-Index Model (pp. 128-141 & 149-154)	E&G - Ch. 7: 1, 2, 5, 6.
Oct. 30	Multi-Index Model	E&G - Ch. 8: 4-7.
Nov. 6	Equilibrium - CAPM	E&G - Ch. 13: 1-5, 7-9.
Nov. 13	Equilibrium - APT (pp. 368-375 & 388-397)	E&G - Ch. 16: 1-4.
Nov. 20	Futures - Mechanics & Valuation	E&G - Ch. 23: 1-6.
Nov. 27	Options - Mechanics	E&G - Ch. 22: 1-5.
Dec. 4	Options - Valuation and Risk Management	E&G - Ch. 22: 1-5
Dec. 11	International Diversification	E&G - Ch. 12: 1, 3, 4. Bracker & Koch paper.
Dec. 18	**** Final Exam (7:30 - 10:00 p.m.) ****	E&G - Ch. 7, 8, 12, 13, 16, 19, 22, 23.
If time permits: Evaluation of Performance		E&G - Ch. 24 & 25.
Interest Rates; Pricing & Mgt of Bond Portfolios		E&G - Ch. 20 & 21.

<u>Important Dates</u>	<u>Subject</u>	<u>% of Grade</u>
Weekly	Group Analyst Reports	20
Oct. 30	Group Project I due	15
Nov. 6	Group Project II due	5
Dec. 18	Final Exam (7:30 - 10:00 p.m.)	<u>60</u>
	Total	100

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We, the faculty, instructors, and students of the School of Business pledge to fulfill our mutual responsibilities to each other and the academic community at large with honor and integrity in order to build and maintain a climate of respect and trust that will enhance our research, teaching, and learning. We will support the Honor System of the School and will not tolerate activities that undermine academic integrity.

As a student in a School of Business class, you will be protected by and expected to conduct yourself in accordance with this system. For a complete description of the system, see: <http://www.bschool.ukans.edu/policies/honor.htm>. This is required reading for all students.

In accord with this policy, the following pledge must be signed by all students after all exams:

On my honor, I have neither given nor received any unauthorized aid on this exam. Nor am I aware of anyone giving or receiving any unauthorized aid on this exam.

Signature

Date

Students with disabilities:

Any student in this course who has a disability that may prevent her/him from fully demonstrating his/her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate the educational opportunity.