

RICE UNIVERSITY
Jesse H. Jones Graduate School of Management

CORPORATE FINANCE (MGMP 543)
Spring 2008 Syllabus

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OBJECTIVE

The objective of this course is to introduce you to the theory and practice of corporate finance, and to provide you with a set of analytical tools necessary to answer the most important questions related to firms' financing and investment policies. The theory of corporate finance consists of the following building blocks:

1. Valuation

Valuation is one of the most basic concepts in finance. We will begin our discussion of valuation with the notion of discounting. A dollar today is worth more than a dollar tomorrow. As we will discover, this simple idea will take us a long way in valuing various financial instruments. We will first apply this idea to price securities such as stocks and bonds.

2. Investment Decisions

Next we will proceed to the analysis of how firms should choose their investments. We will learn how to identify cash flows relevant to the valuation of an investment project and we will discuss popular investment criteria, such as Net Present Value, Internal Rate of Return, and others. In addition, we will present some tools for practical investment decision making, such as sensitivity analysis, scenario analysis, and real options.

3. Risk and Return

In this part of the course we will study the relation between risk and return. At the outset, for simplicity we assumed that the risk involved in a project does not necessarily justify a higher return. Obviously, this is not the case in reality: the riskier the investment, the more we should expect to gain from it. The study of the relationship between risk and return leads naturally to concepts of market efficiency (i.e. you cannot beat the market unless you have superior information) and portfolio theory (i.e. it is not wise to put all your eggs in one basket). This will bring us to one of the most important questions in finance: how much should we expect to gain on an investment given its risk? We will attempt to answer this question by studying one way of estimating expected returns – the Capital Asset Pricing Model (CAPM).

4. Financing Decisions

After learning how to estimate expected returns and how to value assets and projects, we arrive at one of the most important decisions that you will face as a financial manager: how to finance the firm (or its investments)? Should you

raise equity or debt to finance your firm's projects? Do capital structure choices (debt vs. equity) matter for total firm value? If yes, then how?

5. Derivative Securities

Financial instruments are not limited to stocks and bonds. In this section we will learn how to value more complex securities, which derive their values from other, often more basic, securities. Some important examples of derivative securities are options, forwards, and futures. We will study the valuation of derivative securities, including the famous Black-Scholes stock option pricing model.

COURSE MATERIALS

Required textbook: Corporate Finance. Stephen A. Ross, Randolph W. Westerfield, and Jeffrey Jaffe. McGraw-Hill/Irwin, 8th Edition.

It is expected that the required readings pertinent to each lecture will be completed before the lecture. I reserve the right to pose questions to individual students during lectures ("cold calls") in order to stimulate class participation.

Chapter 4 is a required reading before the first class. In addition, people without a finance background will greatly benefit from reading chapters 1-3 before the start of classes.

A copy of the solution manual for the end-of-chapter problems will be on reserve in the Business Information Center (BIC). I am not responsible for the quality of the solutions in the manual. In my experience, the manual contains some mistakes – if you think you've found a mistake, please consult with me.

Required course packet: The packet contains four cases that will be assigned during the semester.

Additional materials: Lecture notes, homework assignments & solutions, sample exams & solutions, etc. will be distributed in class and will be available on the course web site (see below).

Financial calculator: You will need a financial calculator. I do not care what type of calculator you use. For reference, many students in the daytime MBA program are using Texas Instruments BA II Plus.

Course website: All materials handed out in class will also be posted on the class website on owl space: <https://owlspace-ccm.rice.edu/portal> . I will also repeat important announcements on the website; it is your responsibility to visit it frequently.

PERFORMANCE EVALUATION

Performance evaluation will be based on examinations, written case studies, homework assignments, weekly quizzes, and class participation. The weights put on each of these components when computing the final grade are as follows:

Component	Weight
Take-home midterm	25%
Take-home final	33%
Quizzes	14% (2% per quiz)
Homework assignments	16% (2% per homework)
Written cases	12% (3% per case)

Take-home midterm: After the first five weeks of classes you will be given a take-home midterm. This exam will be based on all of the required course materials that will be covered during the first five weeks, including cases and homework assignments.

Take-home final: At the end of the course you will be given a take-home final. This exam will cover topics from the entire course (it will be cumulative).

The take-home midterm and final are going to be open book, open notes, but you are not allowed to cooperate with your classmates. Such cooperation will be considered a violation of the Rice Honor Code (see below).

Quizzes: You will be given short in-class quizzes every week. Your seven best quiz grades during the semester will enter into the calculation of the quiz component of the final grade.

Homework assignments: You will be given weekly homework assignments, which can be prepared in teams. In order to receive credit on analytic homework questions, all intermediate steps must be shown (do not provide an answer without explaining how you derived it). In order to ensure that all team members participate in the preparation of the homework assignments, many questions in the quizzes, and some questions in the midterm and/or final exams, are going to be copied nearly verbatim from the homeworks.

Written cases: You will be assigned five cases during the semester. The cases are to be prepared in teams. Case write-ups must include an executive summary that is one page in length, and must not exceed 3 pages in total (excluding supplementary materials, such as tables, figures, and/or appendices).

Grading: While I'll do my very best to ensure fair and consistent grading, I will not discuss grades or grading policies in class or during office hours. If you discover mistakes in grading, you may request that your material be re-graded. (Keep in mind that the result of a re-grade can go either way.) Once the final grade has been awarded, re-grading requests are handled by the University.

Class participation: While class participation does not explicitly enter the calculation of the final grade, it may affect it, and, therefore, is strongly encouraged. Participation that is consistently of high quality will be used to justify raising the final grade in borderline cases. Significant improvement in performance over the course of the semester will also affect the final grade.

SCHEDULE AND TA HELP

Class schedule: We will meet on Mondays between 6:15 and 9:30 in room 212 (Section 1) and on Wednesdays between 6:15 and 9:30 in room 214 (Section 2). In addition, we will also meet on two Saturdays, Jan 12 and Feb 16 between 9:00 and 12:00 (Section 1) and 1:00 and 4:00 (Section 2).

TA sessions: A teaching assistant will hold office hours and review sessions based on your demand. The timing of the office hours and TA sessions will be determined in class.

RICE HONOR CODE

The Rice Honor System (<http://www.ruf.rice.edu/~honor/>) applies to all work in the class. For each item submitted for grading, please print and sign the honor code as follows (for team assignments, each member of the team should sign):

"On my honor, I have neither given nor received any unauthorized aid on this (examination, quiz or paper). Signature(s)"

DISABILITIES

Any student with a disability requiring accommodations in this class should speak to us as soon as possible. All discussions will remain confidential. Students with disabilities should also contact Rice Disabilities Support Services in the Ley Student Center at 713-348-5841. Additional resources are available on-line at www.dss.rice.edu.

TOPIC OUTLINE

The following table describes the material that we will cover during each class, the required readings from the book that should be completed **before** each class, and the weekly assignments due. We might deviate from this schedule if we'll need to spend more or less time than expected on certain subjects.

Date	Topics	Readings	Assignments due
Jan 7/9	Introduction Discounting and present values	4	
Jan 12	Bond valuation Stock valuation	5.1-5.3 5.4-5.6; 5.8	
Jan 14/16	Stock valuation, continued Case 1: Sleeping Beauty Bonds	5.4-5.6; 5.8	Case 1 HW 1
Jan 22/23	Identifying relevant cash flows Analyzing investment projects Capital budgeting Net present value	2.1-2.2 7.1-7.3; 7.5 6.1	HW 2
Jan 28/30	Case 2: Economy Shipping Company Alternative investment criteria Analytical tools in capital budgeting	6.2-6.8 8.1; 8.3	Case 2 HW 3
Feb 4/6	Case 3: Lockheed Tri Star Market efficiency Review of Term V	13.1-13.7	Case 3 HW 4
Feb 11/13	Basic Statistics Risk and return Portfolio theory	9 10.1-10.6	Midterm
Feb 16	Capital Asset Pricing Model Cost of capital and capital budgeting	10.7-10.9 12.1-12.3	
Feb 18/20	Case 5: Beta Management Company Long-term financing Capital structure – basic topics	25.2-25.3 22.1-22.8	Case 4 HW 5
Feb 25/27	Capital structure, taxes, and bankruptcy Capital structure and agency theory	22.1-22.8	HW 6
Mar 3/5	Futures and forwards Options	14.1-14.4 15.1-15.4; 22.9	HW 7
Mar 10/12	Options, continued Review of Term VI	15.5 16.1-16.6	HW 8
Mar 19			Final