

CORPORATE FINANCE

ECON 448

GENERAL INFORMATION

- **Time and place:** MWF 1-1:50pm, BB116
- **Instructor:** Camelia Bejan
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- **Phone:** (713) 348-3532
- **Office:** BB 266A
- **Office hours:** TBA

PREREQUISITES

ECON 307, ACCO 305, STAT280. Knowledge of calculus is required; familiarity with Excel is assumed.

COURSE DESCRIPTION

This course introduces you to the basic principles that guide corporate managers in making their investing and financing decisions. It also provides the analytical tools for determining the value of a corporation and assessing the effectiveness of corporate management in maximizing that value.

The goal is to provide students with a solid understanding of the basic ideas of modern corporate finance as well as the analytical and quantitative tools necessary to be successful in the modern financial world.

The course starts by presenting a theory of asset valuation, which is the cornerstone of financial decision making. We apply this theory to the valuation of financial assets (bonds and stocks), as well as to the real investment decision (projects) of the firm. Next, we examine the capital structure decision, and how it may affect firm value. We shall also study how firms raise capital, agency conflicts and dividend policies. On the way, we will present the centerpieces of modern financial economics: the *capital asset pricing model*, the *arbitrage pricing model*, the *efficient market hypothesis*, the *option-pricing model*.

In a nutshell, we will argue that the manager should pick projects yielding a return greater than the minimum acceptable hurdle rate. He/she should choose a financing mix that maximizes the value of the project undertaken and matches the assets being financed. If projects with superior returns (above the hurdle rate) are not available, the managers

should return the cash to the owners (stockholders). Whether cash is returned as dividends or through stock repurchases represents the *dividend (payout) decision*.

After taking this class you should be able to fully understand the major issues concerning investors, financial managers and other players in the financial markets. Also if you interview for a job related to Finance you should appear as well-read, aware of the important issues and with a good grasp of the pertinent tools.

COURSE MATERIALS

Required textbook: Brealey, Myers and Allen (2005), *Principles of Corporate Finance*, 8th Edition, Irwin McGraw Hill.

Calculator:

You will need a simple calculator that handles exponents and logarithms.

Course website: TBA

A copy of the syllabus will be available online. Material from lectures, as well as important announcements will also be posted on the website; it is your responsibility to visit it frequently. The homework assignments will be available for downloading on the class homepage. The homepage also provides links to some web sites related to Economics.

HOMEWORK ASSIGNMENTS AND EXAMS

There will be 4 homework assignments. Each assignment is due at the beginning of class at the due date. Solutions will be posted on the due date, thus no late assignments are accepted. If a medical certificate is provided, the average on the other homework sets will be applied towards the missed homework. Collaboration is encouraged, however you have to write and submit the homework individually. Homework will consist of problems and data exercises. 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). Excel will be needed to solve some of the problems.

Statistics Background Test (January 13th): This test will help you refresh some probability and statistics concepts that will be used later in the class. It will also give you a hint of the statistics and probability background that will be required in order to do well in this class.

There is a midterm and a final exam. The midterm is during the regular class hours. Both exams are closed book, but you can bring one (regular size, i.e. 8x11) sheet of notes for the midterm (one-side) and final (two-sides). You need to bring a simple calculator that handles exponents and logarithms. No devices that can be connected to the net or that can serve as database storage (i.e. palms) are allowed. You must take the midterm and final

exams at the scheduled times. If the midterm must be missed for a documented excuse, the final will carry the extra weight. The final must be taken at the scheduled time. The final is cumulative. Homework assignments are the best preparation for the exams. Make sure you are able to solve the homework problems with ease.

GRADES:

Probability and Statistics test	1%
Homework Assignments	24%
Midterm	30%
Final	45%

Class participation is strongly encouraged. Students who enhance the quality of the class discussion can also receive up to 3% bonus points towards the final grade.

I do not discuss grades or grading policies with students under any circumstances. If you discover mistakes in grading, you may submit a written request that your material be re-graded. Re-graded materials will be considered in their entirety. Once the final grade has been awarded, re-grading requests are handled by the University.

Grading scale

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F
95%- 100%	90%- 95%	86%- 90%	82%- 86%	78%- 82%	74%- 78%	70%- 74%	66%- 70%	62%- 66%	58%- 62%	55%- 58%	0%- 55%

I reserve the right to lower the cutoffs but not to raise them.

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 entire honor code as follows:

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

[Your signature(s)]

Special Needs:

Any student with a disability that needs academic adjustments or accommodations is encouraged to speak with me after class or during office hours. All discussions will

remain confidential. Students with disabilities should also contact Disabled Student Services in the Ley Student Center.

TENTATIVE CLASS SCHEDULE

I will attempt to follow the schedule outlined below.

Week	Class	Readings (BM) and practice problems	Remarks
Jan 11,13	Introduction -overview of the course; what finance is about, objective of the firm Probability and Statistics test	Ch 1 Your old statistics notes	
Jan18, 20	Present Values -present and future value, compounding, perpetuities, annuities	Ch 2, Ch 3	
Jan 23-27	Valuation of bonds and stocks. Term structure of interest rates	Ch 4, Ch 23	HW 1 handed out
Jan 30, Feb 1,3	Evaluating projects – internal rate of return, U.S. tax code, general rules for capital budgeting	Ch 5, Ch 6	HW 1 due
Feb 6-10	Risk and return; Portfolio theory – historical evidence; statistics review; measuring the risk of a portfolio, diversification	Ch 7	
Feb 13-17	The Capital Asset Pricing Model (CAPM) - derivation and uses of CAPM, quantifying the tradeoff between risk and return	Ch 8	HW 2 handed out
Feb 20-24	Discount rates in practice – estimating betas, market risk premium, multifactor models, WACC	Ch 9	HW 2 due
Feb27, Mar 1,3	MIDTERM What is happening inside the firm? Part I: sensitivity analysis, where present value comes from, capital budgeting	Ch 10, Ch 11	
Mar 6-10	What is happening inside the firm? Part II: capital budgeting Market efficiency -notions of ME, statistical evidence, implications	Ch 12 Ch 13	
Mar 13-17	MIDTERM RECESS - NO CLASSES		
Mar 20-24	Raising capital – sources of funds, tradeoffs, empirical	Ch 14, 15	

	evidence, stock market reaction		
Mar 27-31	Capital structure I – choice between debt-equity, MM theorem, leverage and risk	Ch 17	HW 3 handed out
Apr 3,5	Capital structure II – taxes and after-tax WACC, financial distress	Ch 18, Ch 19.1 -19.4	
Apr 7	SPRING RECESS – NO CLASSES		
Apr 10-14	Payout policy Options and financial derivatives – introduction, put-call parity	Ch 16 Ch 20	HW 3 due
Apr 17-21	Options II - binomial option pricing, introduction to Black-Scholes model	Ch 21	HW 4 handed out
Apr 24, 26	Review	Prepare questions to ask me	HW 4 due