

Economics 360-1
Masako Ueda

Northwestern University
Department of Economics

Corporate Finance
Fall 2024

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Office Hours: Wednesdays 1:00-3:00pm or by appointment at @KGH 3195 or virtual.

Lectures: TTh 11:00am-12:20pm at Locy Hall 111

Discussion Section: F 12:00pm-12:50pm at Frances Searle 2407

TA: Takaaki Sagawa, (TakaakiSagawa2027@u.northwestern.edu)

TA Office Hours: Thursday 3:30-5:30pm (starting Oct 3) at KGH 3411

Course Description

Finance is about tradeoffs between current cash flows and future cash flows. (The amount of future cash flows is often highly uncertain.) When you use more cash today, it reduces cash availability in the future. When you use less cash today, it increases cash availability in the future. We face this tradeoff in a variety of contexts and we call a decision that involves this tradeoff a financial decision. College loans, house buying and retirement saving are examples of individual financial decisions. Debt/equity choice and project evaluation are examples of corporate financial decisions. We stress corporate financial decisions in this course. However, fundamentals of financial decision-making are the same for both corporations and individuals. Therefore, we learn many important financial lessons for not only corporations but also for individuals. Topics include discounting techniques and applications, stock and bond valuation, asset pricing models, diversification and portfolio choice, capital budgeting and basic option theory.

Prerequisites

The prerequisites for the course are ECON 281-0, ECON 310-1 and ECON 311-1. If you are not familiar with basic accounting concepts such as income statement, balance sheet and cash flow statement, please watch the 1.5 hour long online course “Accounting Foundations with Earl Kay Stice” on LinkedIn Learning, prior to October 7. You can skip Chapter 4. Managerial Accounting. This course also uses Excel extensively. If you are not familiar with Excel, I recommend you to watch the online course “Excel 2016 Essential Training” by Taylor on LinkedIn Learning. You can skip Chapters 14 and 15.

Readings

- Texts: Corporate Finance, 6th edition, by Jonathan Berk, and Peter DeMarzo. Previous editions are also fine.
- Case: Cost of Capital at Ameritrade – The link to the case will be provided.
- Other materials: Handout, problem sets and their suggested solutions and sample exams to be posted at canvas.northwestern.edu. The same website provides a link to Piazza for students who want to openly exchange ideas on topics covered in the course or other course-related issues.

Reading the textbook and distributed materials in advance is strongly recommended, as this class moves quickly.

Grading

The course grade will be based on the class survey (1%), the problem sets (25%), the personal finance project (5%), the two exams (65%) (in-class midterm and final) and the class contribution (4%). The exam grade will be determined from the *higher* of the following two weighted averages:

- (1) 25% midterm exam, and 40% final exam;
- (2) 10% midterm exam, and 55% final exam.

The problem sets will provide practice with the types of calculations and concepts that are important to a proper understanding of the course material. Some problems will provide valuable practices for the midterm and final, while other problems will require you to obtain and make use of real-world financial data or to analyze a case and thus will give you an idea of how theory connects to reality.

There will be six problem sets, and I will drop the lowest problem set score from your grade. The remaining five problem sets will each account for 5% of your grade, for a total of 25% of your final grade.

Students may form study groups; each group consists of at most four people, and submits one write-up for the problem sets.

The midterm exam is scheduled in class. *The final exam* is cumulative but with more emphasis on the contents covered after the mid-term exam.

If you would like your exam regraded, email me why you feel the current grade is incorrect, within one week of the day on which the exam was returned. Then, TA and I will regrade the whole exam. Be aware that your grade may go down after regrading.

Class contribution is graded to encourage your effort to enrich the learning environment and make the class more interesting and beneficial for everyone involved.

Class contribution can be demonstrated in three ways. First, you can contribute to class by speaking in class. Second, you can post constructive questions/suggestions/articles about the class material, problem sets and cases, on piazza. Third, you can e-mail me written feedback about the course. Your contribution is graded both on quality and quantity. A rough guideline for grading is below.

	70-100% constantly	40-70% most of times	10-40% sometimes
Excellent/Outstanding quality	4	3	2
Good/Moderate quality	3	2	1

Electronic Device

I highly recommend using spreadsheet (excel/google sheets) in every class. Using calculator in lieu of smartphone may also reduce distraction.

The Class Honor Code

Students are encouraged to work together when preparing for class and exam. However, exam should be wholly your own individual effort. Any remaining questions or uncertainty should be discussed with me. Violating the class honor code will result in a harsh penalty. Students are also expected to treat classmates and the instructor with respect. This includes arriving for class on time and refraining from any disruptive behavior during class.

Northwestern University Syllabus Standards

This course follows the [Northwestern University Syllabus Standards](#). Students are responsible for familiarizing themselves with this information.

Quality Guideline for Class Contribution

No Participation

The person has said little or nothing in this class to date and so has not contributed anything. Such persons are free-riders because they have benefited from the thinking and courage of their peers but have offered little in return. If this person were not a member of the class, the quality of the discussion would be unchanged or possibly improved.

Moderate

Ideas offered and/or questions asked are seldom important, often irrelevant, and do not provide insights or a constructive direction for the class. Integrative comments and higher-order thinking are absent. This person does very little to further the thinking and potential contributions of others. Contributions in case classes reflect inadequate preparation.

Good

Ideas offered sometimes provide useful insights, but seldom offer a major new direction for discussion. Supporting arguments are moderately persuasive. Comments/questions occasionally enhance the learning of others, and indicate that this person is a passable listener. If this person were not a member of the class, the quality of our discussions would be diminished somewhat. Contributions in case classes reflect satisfactory preparation.

Excellent

Challenging questions are sometimes answered. Ideas offered are usually substantive, and provide good insights and sometimes direction for the class. Arguments are generally well supported and often persuasive, and reveal that this person is a good listener. Comments usually help others to improve their thinking. If this person were not a member of the class, the quality of our discussions would be diminished considerably. Contributions in case classes reflect thorough preparation.

Outstanding

Challenging questions are almost always answered. Ideas offered are always substantive, and provide one or more major insights as well as direction for the class. Arguments are well supported, persuasively presented, and reveal that this person is an excellent listener. Comments invariably help others to move their thinking to a higher plane. If this person were not a member of the class, the quality of our discussions would be greatly diminished. Contributions in case classes reflect exceptional preparation.

Course Schedule (updated 11/16)

Legend: PS (Problem Set) and FP (Personal Finance Project)

<u>DAYS</u>	<u>ASSIGNMENT</u>	<u>TOPICS</u>	<u>TEXT CHS</u>
Sep 24&26 (Sep 28)	(Survey Due)	TIME VALUE OF MONEY Cash Flows; Interest Rates, FV and PV, Annuities; Perpetuities	3.2-3.3, 4.1-4.5, 4.7- 4.9
Oct 1		INTEREST RATES Interest Rate Quote; Nominal vs Real; Term Structure of Interest Rate; Interest Rates and Loans	5.1-5.3
Oct 3 (Oct 5)	PS 1 Due (FP1 Due)	VALUING BONDS Coupon Bonds; Yield to Maturity; Yield Curve; Arbitrage and Law of One Price; Bond Pricing;	6.1-6.3 & 3.4, 3.5
Oct 8		FINANCIAL FORECASTING FOR VALUATION Income vs. Cash Flows	2.1-2.6
Oct 10	PS 2 Due	CAPITAL BUDGETING Incremental Cash Flows; Depreciation; Salvage Value	8
Oct 15		INVESTMENT DECISION RULES Opportunity Cost of Capital; Net Present Value; Internal Rate of Return; Payback Period; Profitability Index	5.5 & 7
Oct 17		VALUING STOCKS Firm Value; Dividends; Capital Gains; Gordon Growth Model	9.1-9.4
Oct 22	PS 3 Due	RISK AND RETURNS Variance and Covariance; Diversification; Market Risk; Retirement Planning Revisited	10 & 5.4
Oct 24		MID-TERM EXAM: 11:00AM-12:20PM IN-CLASS	
Oct 29		RISK AND RETURNS, CONT'D	
Oct 31 Nov 5&7	PS 4 Due	CAPITAL ASSET PRICING MODEL (CAPM) Mean-Variance Preferences; Capital Allocation Line; Efficient Frontier; Tangency Portfolio; Sharpe Ratio; Portfolio Betas;	11
Nov 12 (Nov 11)	(PS5 Due)	CASE: AMERITRADE Cost of Capital Estimation; Capital Budgeting	Case
Nov 14&15 (Nov 16)	(FP2 Due)	COST OF CAPITAL AND PROJECT VALUATION Weighted Betas; Project Betas; Weighted Average Cost of Capital; Asset/Debt Betas	12&14.3
Nov 19		OPTIONS Call and Put Options; Put-Call Parity; Payoff Diagrams	20.1-20.5
Nov 21 (Nov 23)	(PS 6 Due)	VALUATION OF OPTIONS Law of One Price; Binomial Black-Scholes Model	21.1-21.2
Nov 26		Make-up Discussion Section	
Dec 3		REVIEW SESSION	
Dec 10		CUMULATIVE FINAL EXAM: 12PM-2PM	