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Fall 2023

FIN 600-001: Corporate Finance I

Michael Ehrlich

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FIN 600-001 – Corporate Finance I
3 credits
SYLLABUS
Fall 2023

Instructor: Michael Ehrlich

Office: MTSM 2014 Leir Research Institute	Classroom: KUPF 103
Email: ehrlich@njit.edu	Class Hours: Tues 2:30-5:20 PM
Phone: 973-596-5305	Class Dates: Sep 5 – Dec 23, 2023

Office Hour: Thurs 2-5pm or by appointment
Webex: https://njit.webex.com/meet/ehrlich

Course Overview

Fin 600 is the traditional first course in corporation finance common to master programs, focusing on how firm managers make their financing and investing decision to run their business. Topics include the financial statement analysis, time value of money, bond and equity valuation, risk and return, capital budgeting, capital structure, dividends, and so forth. We will consider these topics mainly from the point of view as a manager (insider), and sometimes from the point of view as an investor (outsider) where appropriate.

Required Course Materials:

You should have a working knowledge of basic algebra and statistics and feel comfortable doing quantitative exercises. Because this course involves intensive number analysis, you should be familiar with some sort of software, e.g. Microsoft Excel. Some knowledge of accounting, micro and macroeconomics would be helpful.

1. Textbook: Ross, Westerfield, Jaffe and Jordan, *Corporate Finance*, 13th Ed., McGraw-Hill Irwin. *Required*. Earlier editions also work but you need to match in two editions.
   Textbook Web site: https://www.mheducation.com/highered/product/corporate-finance-ross-westerfield/M9781260772388.html

2. <u>Financial Calculator:</u> A financial calculator is highly recommended. I recommend the HP 10bII or Texas Instrument BAII Plus financial calculator. If you have another financial calculator that you are comfortable with, you may use it. It is your own responsibility to learn how to use your calculator.
3. <u>Business news:</u> You are also strongly encouraged to read other economic and financial publications such as Financial Times, Business Week, or the Economist

Learning Outcomes:

After taking the course, students are expected to know fundamental business concepts, especially related to corporate finance, and to understand the goal and main functions of firm management. Beyond basic quantitative models, graduate students are expected to be able to apply those models to conduct financial statements analysis and scenario analysis, which helps to solve real business problems. Students are required to conduct fundamental analysis of one selected firm and present to the class as a group. This presentation enhances students' understanding of finance and their ability to communicate, but also develops their critical thinking of complex information.

Competencies	Outcome
LC 1 Develop the Ability to Apply Corporate Finance Concepts and the Basic Quantitative Skills to Solve Problems	**LO 1.1** Our students will demonstrate the knowledge and application of firm fundamentals
	LO 1.2 Our students will explore firm problems and classical solutions
	LO 1.3 Our students will solve firm problems using quantitative models
LC 2 Develop Effective Communication Skills	**LO 2.1** Our students will execute effective presentations enhanced by technology
	LO 2.2 Our students will demonstrate the ability to write clear and concise reports based on relevant information
LC 3 Interact Effectively in Teams	**LO 3.1** Our students will apply and use team building behaviors to accomplish group tasks

How to join on Webex:

Webex: https://njit.webex.com/meet/ehrlich

For technical help contact the NJIT Help Desk:

- **Phone:** 973-596-2900
- **Email:** ServiceDesk@njit.edu

Generally, email is the best way to reach me. Please put FIN 600-001 in the Subject Line.

Course Website: Canvas

The Canvas site is where most course materials are posted. I will use Canvas to post all course materials including announcements, assignments, quizzes and etc. **So, please be sure to check the site (canvas.njit.edu) frequently. Please contact helpdesk (973-596-2900) for problems associated with Canvas. Important announcement will be released as under Canvas "Announcements".** There is no excuse for not receiving information via email.

Grading Policy

Final grades will be based on the weights as follows:

Task	Points
Tests	25*2
Project	25
Quizzes	5*4
Participation	5
News presentation (individual)[1]	up to 3
Bloomberg Market Concepts (BMC)[2]	4
Total	**107**

Letter grade is based on points.[3] The scale used for grading is as follows:

Grade	Scores
A	scores ≥ 90
B+	$85 \leq$ scores < 90
B	$80 \leq$ scores < 85
C+	$70 \leq$ scores < 80
C	$60 \leq$ scores < 70
F	scores < 60

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[1] Students have the option to present recent news in business (within last 3 months) with length 6-10 minutes. Email me 48 hours ahead and present at the beginning of each lecture classes. There are up to 3 points based on quality of content, presentation slides quality and presenting performance.
[2] Bloomberg Market Concepts (BMC) is an 8-hour, self-paced, e-learning video course consisting of four modules: Economic Indicators, Currencies, Fixed Income and Equities. See details: https://researchguides.njit.edu/bloomberg/curriculum
To get this extra 4 points, you need finish BMC and send me the certificate by Dec 13, 2023. **Later submission is not credited.**
[3] Letter grade is based on points, rather than percentage on Canvas. That is likely based on equal weights and does not apply to this course.

Exams

There will be **three** exams in total. Two higher scores will be recorded, each accounting for 25 points, i.e., the lowest score will be dropped so missing one will not affect your grade.

Exams most likely will be a mixture of multiple-choice questions, quantitative problems, and open-ended questions. One extra-credit question might be asked. If you get it right, your grade will be curved up but never curved down.

Exam 1 will be on **10/26**, Exam 2 will be on **12/7**, and Exam 3 (final exam) will be scheduled by NJIT during the final exam week. Exam 1 is not cumulative, while Exam 2 and 3 are cumulative. Early exam can be requested and needs my approval (no later one). If you missed anyone of Exam 1 or Exam 2, there is no make-up and you will be required to take Exam 3 (final exam) during the final exam week. You can request for an additional exam only if you must miss two exams for serious illness or unexpected emergency. To request, you *must* first get the approval from the Dean of Students and Campus Life at dos@njit.edu for both situations.

Three exams are all open book and via Canvas. Please be aware that Canvas exams are with browser lockdown. Please pay close attention to Quiz and Exam open/close timing in Canvas.

Project and Presentation

Group project and presentation accounts for 25 points of your final grade. More details can be referred to the end of this syllabus.

Homework/Quizzes

Homework is an integral part of the course, which offers a good opportunity to review what you have learned in the class. You may discuss jointly with your peers on homework assignments. However, I strongly recommend that you try to solve the questions independently. This will be help you to better understand the theories and analytical tools that will be covered on the exams.

In this course, homework assignments are designed as in-class quizzes. Quizzes will be posted and done via the NJIT Canvas under "Assignments", **due by the end of the class** and due date can be referred to the syllabus (see tentative calendar).

There are four quizzes in total, which accounts for 20 points of your final grade (5 points each). Quizzes offer unlimited attempts with the highest score recorded. **No late/make-up quizzes are allowed.**

Attendance and in-class participation

This course is designed as a hybrid class with face-to-face and asynchronous virtual delivery mode alternating weekly (see tentative calendar).

In-class attendance and participation are credited. You are encouraged to raise questions, answer questions, share thoughts and discuss topics, including on Canvas.

Canvas exams and quizzes will take place both in-class and virtually. In-class exams and quizzes will take place during the class hours, so students must bring laptops to class. To request any exception, you *must* first get the approval from the Dean of Students and Campus Life at dos@njit.edu

Presentation of the group project will be in person in the classroom during the class hours as well, no online option. If it is an individual project, to request any exception, you *must* first get the approval from the Dean of Students and Campus Life at dos@njit.edu. For group project to request, all members *must* get the approval.

Email Etiquette

This is a business course, and the expectation is that you will conform to appropriate business letter writing practice in all your email to me. The following are the basics.

- Put the course name (e.g. FIN 600-001) in the subject line
- Identify the subject of the e-mail with a brief but descriptive summary of the topic: include a proper salutation and the assignment details such as the title, homework, or test.
- Proofread your e-mail for proper sentence structure, capitalization, spelling and punctuation.
- Conclude the e-mail message with a proper closing (e.g. Regards, Sincerely) and your full name.

(Note: Do not e-mail requests for additional grade points unless there is an error in the grading. Grades are not 'given out' by the professor; they are 'earned' by the student. So, make sure that you 'earn' a grade that you can live with.)

Generally, email is the best way to reach me. Please put FIN 600-001 in the Subject Line.

Academic Integrity

Learning is both an individual and a cooperative experience. Asking for and giving help freely in appropriate settings helps you learn. However, you should present only YOUR work as your own. University rules and standards define and prohibit "academic misconduct" by all members of the academic community including students. You are asked and expected to be familiar with these standards and abide by them.

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: *http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf*.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. ***Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.*** If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at *dos@njit.edu*.

Accommodations for Students with Disabilities

Students with special needs as outlined under the Americans with Disabilities Act should first register with the Counseling Center, 205 Campbell Hall 973 596-3414. Go to the web site https://www.njit.edu/accessibility/accommodations-and-support-services for more information. If you wish to have a reasonable accommodation made for you in this class, please discuss the matter with me at the earliest possible time.

Tentative Calendar:

Please note that this is a tentative schedule for our Hybrid class. I reserve the right to adjust if necessary and new versions will be announced via Canvas. You are responsible for knowing what is in the latest version. **NOTE: (V) indicates asynchronous virtual class day.** Please pay close attention to Quiz and Exam open/close timing in Canvas.

Date	Day	Schedule	Textbook chapter	Notice
9/5/2023	Tu	(V)Syllabus, introduction	1	9/11 last day to drop the class
9/12/2023	Tu	Financial statement	2, 3	
9/19/2023	Tu	(V)Quiz 1		Quiz1 due on 9/19 5:30pm EST
9/26/2023	Tu	Discounted cash flow	4	
10/3/2023	Tu	(V)Investment criteria, bond, and equity valuation	5, 8, 9	
10/10/2023	Tu	Quiz 2 Bring Laptop to Class		Quiz 2 due on 10/10 5:30pm EST
10/17/2023	Tu	(V)Capital investment, risk analysis and budgeting	6, 7	
10/24/2023	**Tu**	**TEST 1** Bring Laptop to Class		**Chapter 1-5, 8, 9**
10/31/2023	Tu	(V)Risk and return	10, 11, 12	
11/7/2023	Tu	Capital structure and cost of capital	13, 16*	
11/14/2023	Tu	(V)Quiz 3 & 4		Quizzes 3-4 due on 11/14pm 5:30pm EST
11/21/2023	Tu	Thanksgiving Thursday NO CLASS		
11/28/2023	Tu	Group project 1		
12/5/2023	**Tu**	**(V)TEST 2**		**Cumulative**
12/12/2023	Tu	Group project 2		

TBD   **FINAL EXAM**   **Cumulative**

Project and Presentation

Finance is more than theory and formula. Learning and understanding what is happening in the real business world is also of great importance. As a graduate student, you are expected to conduct fundamental analysis and communicate efficiently with people.

Objective of the project: suppose you are the financial analyst of a given firm, you need to conduct comprehensive analysis and offer the conclusion to your clients whether the firm is worthy to invest or not in the short run (such as next week or next month).

Guidance:
- Group: 3 – 5 members (self-select), individual is also allowed if approved by professor
- Presented by all members on the day of presentation.
- Select one public stock/firm, analyze its performance, compares with its competitors, and predict its future stock price in near future, i.e., predict the closing price on 12/12/2023.
  - Team information and price prediction (for extra points) must be submitted by 11/21/2023. Late information submission will lead to points deduction. Late prediction is NOT allowed.
  - If predicted direction (increase/decrease) is correct, get 1 extra point.
  - If predicted price is close to realized future price (within ±5% or ±$10, whichever is smaller), get 1 extra point.
- Prepare the presentation (10 - 15 minutes) with visual notes (such as PowerPoint slides, PDF, and so forth)
  - Watch out time control. Shorter than 10 minutes and longer than 15 minutes will lead to points deduction. ≤7 minutes will be considered as insufficient content and with no more than 20 points (including extra points).
- The presentation likely includes but is not limited to the following information:
  - Group members
  - Selected firm, why you choose the firm, introduction of the firm (industry, business, its current market cap, stock price in the previous 6 months, executive summary, and etc)
  - Financial statement analysis (most recent annual 10-K or quarterly 10-Q report) https://www.sec.gov/edgar/searchedgar/companysearch.html
    Capital budgeting (investment) and capital structure (financing) analysis[4]

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[4] Capital budgeting analysis, for example, you could study the asset part of the balance sheet. In particular, capital expenditures are directly associated with investment decisions. You could get the ratio of capital expenditures over total assets of the firm and compare current one with previous one or compare this firm with its competitors. Other related items can be purchases of property, plant, and equipment (PP&E), R&D expenditures, and Management's Discussion and Analysis.
Capital structure analysis: you could calculate the long-term and short-term financing status (from CH3 ratio analysis) and compare the current one with previous one or compare this firm with its competitors.

- o Risk and return analysis in the stock market[5]
  - o Industry and market analysis (such as competitors and macro factors)
  - o Valuation analysis (what is your predicted price for closing price on 12/12/2023 and how you predict; quantitative prediction model using programming and excel is encouraged such as Python LTSM and Excel DCF)
- Grading will be based on content, visual notes, presentation performance, and timing. Grading will be the same among teammates, assuming equal contribution
  - o After the submission of team information and price prediction, no further price prediction changes are allowed.

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[5] Risk and return analysis, for example, you could check the beta (measure of systematic risk), compute holding period return and return standard deviation over the past 6, 12, 36-month return, and also get firm's profitability and analysts' forecast, for example: https://finance.yahoo.com/quote/AAPL/analysis?p=AAPL