

Fall 2023

FIN 600-853: Corporate Finance I

Xinyuan Tao

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FIN 600 – Corporate Finance I

Online session 853

Fall 2023, Sep 5 – Dec 23

3 credits

SYLLABUS

Instructor: Dr. Xinyuan (Stacie) Tao

Office: SOM 4028

Email: xtao@njit.edu

Phone: 973-596-6420

Office Hour: 3 – 5 pm & 7 – 8 pm on Wed or by appointment

Webex: <https://njit.webex.com/meet/xtao>

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. *Recommended*. Earlier editions also work but you need to match chapters in two editions.

Textbook Web site: <https://www.mheducation.com/highered/product/corporate-finance-ross-westerfield/M9781260772388.html>

2. **Financial Calculator:** A financial calculator is *recommended*. I recommend the Texas Instrument BAII Plus financial calculator. If you have another financial calculator that you are comfortable with, you may use it. TI - BA II Plus and HP 12C are the only two calculators permitted on the CFA Exams. It is your own responsibility to learn how to use your calculator.
3. **Business news:** 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 explain firms’ fundamental concepts and compare firms’ fundamentals
	LO 1.2 Our students will analyze firm problems and explore classical solutions
	LO 1.3 Our students will evaluate and formulate 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 assemble 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 handle group tasks

How to join on Webex (if needed):

Webex: <https://njit.webex.com/meet/xtao>

Meeting Number: 921 602 381

Join by video system

Dial xtao@njit.webex.com and enter your host PIN 7665.

You can also dial 173.243.2.68 and enter your meeting number.

Join by phone

1-650-479-3207 Call-in number (US/Canada)

Access code: 921 602 381

Host PIN: 7665

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 announcements will be released as weekly reminder 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
Exam 1	25
Exam 2	25
5 Homework/Quizzes	30 (6 each)
Online participation	20
Projects (optional)	up to 8
Total	108

Grading is based on points.¹ The scale used for grading is as follows:

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

Exams

Totally, there will be *three* exams, each accounting for 25 points. The lowest one will automatically be dropped or missing one will not affect your final 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.

Exam 1 will be available during **Oct 22-24**, Exam 2 will be **Dec 10-12**, and Exam 3 (final exam) will be determined by NJIT during the final exam week. Exam 1 is not cumulative, while the Exam 2 and 3 are cumulative. Early exams can be requested at least 48 hours ahead (no later one).

If you miss Exam 1 or 2, **no make-up exam is allowed** and you are required to take the Exam 3 (final exam). You can request for an additional exam only if you have to miss **two** exams for serious illness or unexpected emergency. To request, you **must** get the approvals from the Dean of Students and Campus Life for **both** situations. All three exams will be done via Canvas, open book with browser lockdown.

¹ Letter grade is based on points. Please do not look at the percentage on Canvas, which simply uses equal weights and does not apply to this course.

Projects

As this is a graduate level course, it is important to apply what you have learned to conduct business analyses. Project is strongly recommended. The project accounts for additional up to 8 points based on quality. More details can be referred to *Appendix B* at the end of this syllabus and **no late submission/make-up is allowed.**

Homework

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 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 quizzes. Quizzes will be posted and done via the NJIT Canvas under “Assignments”, where Quizzes 1 and 2 due on **Oct 15 Sunday 11:59pm EST**, and Quizzes 3 – 5 due on **Dec 3 Sunday 11:59pm EST**.

There are five quizzes in total, each accounting for 6 points (totally 30 points). Quizzes offer unlimited attempts with the highest score recorded. **No late/make-up quizzes are allowed.** Weekly reminder will be announced for you.

Online participation

According to NJIT eLearning Rubric and to ensure the teaching effectiveness, weekly online interactions are required among students and the instructor. Accordingly, this course has designed various online activities. More details can be referred to *Appendix A* at the end of this syllabus.

There are in total 20 points for online participation. To get the full credit, you must participate at least ten times.

Email Etiquette

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

- Put the course name (e.g. FIN 600 ONLINE) in the subject line
- Identify the subject of the e-mail with a brief but descriptive summary of the topic

- Proofread your e-mail for proper sentence structure, capitalization, spelling and punctuation

(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.)

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. I reserve the right to adjust if necessary and new version will be announced and posted on Canvas. You are responsible for knowing what is in the latest version.

Week	Schedule	Textbook chapter	Others
1	Syllabus, introduction	1	
2	Financial statement	2, 3	
3	Quiz 1		CH 2-3
4	Discounted cash flow	4	
5	Quiz 2		CH 4
6	Investment criteria, bond and equity valuation	5, 8, 9	
7	<i>EXAM 1</i>		
8	Quiz 3		CH5, 8, 9
9	Capital investment, risk analysis and budgeting	6, 7	
10	Risk and return	10, 11, 12	
11	Quiz4		CH10-12
12	Capital structure and cost of capital	13, 16, 17	
13	Quiz5		CH13
14	<i>EXAM 2</i>		
15	<i>EXAM 3/Final Exam</i>		

Appendix A. Online Participation

According to NJIT eLearning Rubric and to ensure the teaching effectiveness, weekly online interactions are required for students and the instructor. Accordingly, this course has designed weekly online activities.

You are required to participate **at least ten times** to earn the full credit (20 points) in any five categories in the following. More participations are encouraged with up to 2 extra points. All online participations should be done **by the given due or by Dec 3 Sunday 11:59pm EST, whichever is earlier**.

In total, there are much more than 20 online assignments, which offers you sufficient opportunities to fulfill the minimum requirement of ten participations. Thereby, if missing any, **no make-up/late ones are allowed**.

Detailed categories and guidance are as follows:

Category 1. Online survey

There will be two online survey via google forms

Each is accounted as one online participation

Details will be or have been sent to you via Canvas announcement

No make-up/late ones are allowed

Category 2. Online discussion by chapters (via Canvas “Discussion” click “Reply”, see example screenshot)

☰ FIN 600853 > Discussions

The screenshot shows the Canvas interface for the course FIN 600853. On the left is a navigation sidebar with 'Discussions' highlighted. The main content area shows a search bar and a section for 'Pinned Discussions'. A single pinned discussion is visible with the title 'CH1 Introduction: what are the main takeaways?' and a due date of 'Available until Dec 4, 11:59 PM'.


CH1 Introduction: what are the main takeaways? ▲★ Aug 16 at 9:53pm
 Xinyuan Tao
 All Sections

Use your own words to answer the following questions:

What are the main takeaways of this chapter? i.e., what are the most important contents that you have learned from this chapter?

You can also post your own questions for discussion if needed.

 Topic Podcast Feed

 Reply


Xinyuan Tao
 3:57pm

I have learned that to operate a firm, there are three main questions to think about: where to get money (finance/capital structure), how to spend money wisely (investment/capital budget), and how to manage day-to-day activities (working capital management).

 Reply 

- Reply with your answers/thoughts is considered as *one* participation. Please note: multiple replies under the same discussion are considered as *one* participation.
- Can echo others' reply with reasonable answers (not just simply click like or just say "I agree")
- Please expect that instructor will respond (not to each reply) and do grading twice during the semester: one in 3-4 weeks after the week of each discussion assignment and another after the due. If you are looking for any timely opinion or answer from me, it is better to email me (xtao@njit.edu with subject "FIN 600 online")
- Totally 10 participations

Category 3. Online synchronous session (via Webex with the instructor: <https://njit.webex.com/meet/xtao>), including the following activities:

- Syllabus explanation
- Two exam review sessions
- One-on-one meeting after Exam 1
- Each one is considered as *one* participation (i.e., totally four participations)
- Dates and times will be announced via "Canvas announcements"

Category 4. Office hours (via Webex with the instructor: <https://njit.webex.com/meet/xtao>)

- You can ask questions related to this course or offer any feedback
- Regular office hour is 3-5 pm and 7-8 pm EST on *Wednesdays*. If not working for you, feel free to make an appointment with me
- Each one is considered as *one* participation

Category 5. Initiate a discussion (via Canvas “Discussion”)

You can also initiate a discussion on any business-related topic or share any interesting business-related news (the news should be within the recent six months). Please note: to be considered as *one* valid participation, one discussion/reply from other classmates is required

Appendix B. 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 and encouraged to conduct fundamental analysis and generate a professional presentation.

The project and presentation is **optional and due on Dec 20 Wednesday**. If you would like to do the project, please submit your team and stock prediction **by Dec 3 Sunday**. **Later one is not allowed**. There will be up to 5 points based on quality, 1 additional point for group work, and 2 additional points for stock prediction (in total, **up to 8 extra points**).

Objective of the project: suppose you are the financial analyst of a given firm, you need to conduct comprehensive analysis and offer the instructive guidance 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, individual is also allowed but groups are more encouraged
- Select one stock/firm, analyze its performance, compares with its competitors, and predict its future stock price in the near future (predict the closing price on Dec 20 Wednesday)
 - The prediction offers extra credits and wrong prediction will not hurt your score at all.
 - If predicted direction (increase/decrease) is correct, get extra 1 point
 - If predicted price is close to realized future price (within $\pm 5\%$ or $\pm \$10$, which is smaller), get extra 1 point
- The presentation likely includes but is not limited to the following information
 - Group member
 - 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) analysis²

² 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.

- Risk and return analysis in the stock market³
- Industry and market analysis (such as competitors and macro factors)
- Valuation analysis (what is your predicted price for closing price on Dec 20 Wednesday, what is your prediction model. Quantitative prediction model using programming and excel is encouraged such as Python LSTM and Excel DCF)
- Reference
- The project will be in the format of presentation with visual notes (PPT, PDF, etc), can be video recording or schedule a presentation time with the instructor

Presentation	
1	Presentation should be 10-15 minutes, one or more presenters are allowed
2	Visual notes are required
3	Either video recording <i>or</i> schedule a virtual meeting (Webex) to present
4	Recording should email to xtao@njit.edu by Dec 20 Wednesday
5	Virtual meeting presentation should be scheduled before Dec 20 Wednesday, as well
6	Grading will be based on content, visual notes, presentation performance, and timing. Grading will be the same among teammates, assuming equal contribution

³ 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>