NYU | STERN

Warning: This course is not optimized for Mac Versions of Excel.
Please check out NYU Classes under "Resources" for running Excel on Citrix.

Modeling Financial Statements (MSA Spring 2021)
Teaching Mode: M1 (blended) Tuesday, M2 (online) Thursday

COURSE DESCRIPTIONS & SYLLABUS

Your instructor

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Consultation hours:	Please check NYU Classes, available on Zoom.

COURSE DESCRIPTIONS

Overview

Forecasting financial statements is critical for many business disciplines. Though financial projections are rarely perfect, a good flexible and dynamic financial model enables the users to consider different scenarios (typically predicated by historical and anticipated results) and various variables that could potentially lead to different business decisions.

The course is designed to equip you with the skills to design, build and present your interactive financial models from scratch. By the end of the course, you should have the ability to understand, analyze, and model spreadsheet-based pro-forma financials for equity valuation purposes as well as for other business contexts. This course synthesizes your knowledge in financial statement analysis, corporate finance, and valuation.

Part I: Building financial models for various decision contexts
In Part I of the course, we exploit (i) the linkages between financial statements and (ii) the accounting constructs (that tie financial variables together) in building flexible and dynamic financial models for various decision-making contexts. Contexts that we examine include managing working capital, budgeting for start-up businesses, evaluating strategy, forecasting financial statements. Part I of the course concludes with building a dynamic financial model that projects the financial statements and their supporting schedules for a publicly listed company.

Part II: Financial modeling for equity valuation
In Part II of the course, we focus on financial models commonly used for equity valuation purposes. The valuation models we examine include the Relative Valuation model, Discount Cash Flow model, and the Abnormal Earnings Growth model.

To design your valuation model, we need first to know how financial metrics are mapped into stock prices. Through the development of these valuation models from first principles (yes, in this course, we will derive all the models!), we can synthesize, compare and contrast the different valuation models (e.g., Dividend Discount

Model, Free Cash Flows Model, the Residual Income Valuation Model, Abnormal Earnings Growth Model). It is also through the derivation of these models. We can pinpoint the relationships (or lack of) between various accounting variables (such as book value, earnings, EBITDA, etc.) and intrinsic values. To the extent that stock prices and intrinsic values deviate, we will have a better appreciation of multiples such as P/B, P/E, PEG, and other ratios that involve stock prices.

This course introduces a new procedure in inferring future financial metrics you need to see from a publicly listed company based on the stock price you are paying. Your dynamic valuation model will enable you to identify and quantify how changes in certain factors (e.g., business risk factors, business outlook, or affiliation with related companies) will impact a company's stock price. As implied by the current stock price, you will assess whether future performance is attainable using the dynamic valuation model you build to formulate your buy/sell/hold decision.

COURSE MATERIALS

There is no prescribed textbook for this course. Learning objectives will be illustrated through a series of class exercises. You may access all course materials, including class exercises and solutions to class exercises on NYU Classes.

You may access a detailed listing of the sequence of topics, related materials, and related spreadsheets via NYU Classes. Do not forward or share materials with others.

ASSESSMENTS

Your final grade is calculated based on:

Class Exercises (only the ones we ask you to submit)	15%
Take-Home Mid-Term Exam	30%
Group Presentation	25%
Take-Home Final Exam	30%

ACADEMIC INTEGRITY

Academic integrity and honesty is central to our mission as an educational institution. The MBA & Graduate Courses Code of Conduct, which all students sign, therefore places particular emphasis on academic integrity. Notably this includes refraining from any method or means that provides an unfair advantage in exams or papers, and clearly acknowledging the work of others in your own work. As a reminder, the entire Code of Conduct is available here.

To help ensure the integrity of our learning community, prose assignments you submit to NYU Classes will be submitted to Turnitin. Turnitin will compare your submission to a database of prior submissions to Turnitin, current and archived Web pages, periodicals, journals, and publications. Additionally, your document will become part of the Turnitin database.

STUDENT ACCESSIBILITY

New York University is committed to providing equal educational opportunity and participation for students with disabilities. Students who are interested in applying for academic accommodations are advised to reach out to the Moses Center for Student Accessibility (CSA) as early as possible in the semester. If you already receive accommodations through CSA, you are encouraged to request your

accommodation letters through the Moses portal as soon as possible.

Moses Center for Student Accessibility (CSA), 212-998-4980, mosescsa@nyu.edu, www.nyu.edu/csa

If you will require academic accommodation of any kind during this course, you must notify me at the beginning of the course and provide a letter from the Moses Center for Student Accessibility (212-998-4980, mosescsa@nyu.edu) verifying your registration and outlining the accommodations they recommend. If you will need to take an exam at the Moses Center for Student Accessibility, you must submit a completed Exam Accommodations Form to them at least one week prior to the scheduled exam time to be guaranteed accommodation. For more information, visit the CSA website: https://www.nyu.edu/students/communities-and-groups/student-accessibility.html

STUDENT WELLNESS
Classes can get stressful. I encourage you to reach out if you need help. The NYU Wellness Exchange offers mental health support. You can reach them 24/7 at 212 443 9999, or via the "NYU Wellness Exchange" app. There are also drop in hours and appointments. Find out more at http://www.nyu.edu/students/health-and-wellness/counseling-services.html

TENTATIVE CLASS SCHEDULE

Week	Topics
Part I: Building financial models for various decision contexts	
1. M1:2/2 M2:2/4	Intro to Financial Modeling - Modeling overview - Modeling and equity valuation overview - Modeling best practice - Excel best practice and shortcuts
2. M1: 2/9 M2: 2/11	Modeling Working Capital Management - Short-term liquidity - Receivable/Payable/Inventory management
3. M1: 2/16 M2: 2/25	Modeling Start-up Businesses - Start-up budgeting - Presenting financial models - Tools for start-up businesses
4. M1: 2/23 M2: 3/4	Building financial forecasts - Set up - Modeling operating performance
5. M1: 3/2 M2: 3/11	Building financial forecasts (cont.) - Modeling asset intensity - Modeling debt - Modeling taxes
6. M1: 3/9 M2: 3/17	Building financial forecasts (cont.) - Mid-Term review
7. M1: 3/16 M2: 3/25	Building financial forecasts (cont.) - Modeling equity method investment - Modeling non-controlling interest holders - Modeling equity and number of shares
8. M1:3/30 M2: 4/1	Forecasting statements – a comprehensive case - 7 steps in building financial statements for a selected listed company
9. M1: 4/6 M2: 4/8	Forecasting statements – a comprehensive case (cont.) - 7 steps in building financial statements for a selected listed company
Part II: Financial modeling for equity valuation	
10. M1: 4/13 M2: 4/15	Connecting Financial Modeling with Equity Valuation - Stock price and accounting variables - Implementing Dividend Discount Model - Implementing relative valuation (price-multiples) - Implementing Asset-based Valuation Model

11. M1: 4/20
M2: 4/22
	Implementing Residual Income Valuation Model
	   - Introduction and implementation
	   - Reverse engineering 5

12. M1: 4/27
M2: 4/29
	Implementing Abnormal Earnings Growth Model
	   - Introduction and implementation
	   - Reverse engineering
	Formulating buy/sell/hold decision using dynamic financial model

13. M1: 5/4 **M2: 5/6**	**Group Presentations**