

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

# **Modeling Financial Statements (Spring 2023)** Teaching Mode: Online

# **COURSE DESCRIPTIONS & SYLLABUS**

#### **Your instructor**

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Consultation hours:	Please check LMS Brightspace.

## **COURSE DESCRIPTIONS**

#### Overview

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

Using Microsoft Excel to create financial models can be straightforward, but also tedious and repetitive. Tools like Excel provide advanced features that automate and accelerate tasks such as formatting cells, creating charts, and organizing information. Learning to use these features will give you more time to interpret and share your results.

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, model spreadsheet-based pro-forma financials, and program macros using VBA (Visual Basic for Applications). This course synthesizes your knowledge in financial statement analysis, corporate finance, and valuation.

The course consists of two interwoven parts:

#### Part I: Building financial models for various decision contexts

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, and forecasting financial statements. Part I of the course concludes with us building a dynamic financial model that forecasts EPS and the financial statements and their supporting schedules for a publicly listed company.

#### Part II: Accelerating model building using Excel VBA

We employ VBA to make our model building more efficient and productive. Approaches for automating common tasks will be taught and explored. Hands-on instruction and exercises will introduce you to programming concepts that you can apply in professional and academic settings, including assignments within this course.

#### **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 LMS Brightspace.

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

#### ASSESSMENTS

Your final grade is calculated based on:

Quizzes	20%
Take-Home Mid-Term Exam	30%
Group Presentation	20%
Take-Home Final Exam	30%

## **ACADEMIC INTEGRITY**

Academic integrity and honesty is central to our mission as an educational institution. <u>The MBA</u> <u>Code of Conduct</u>, 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 <u>entire Code of Conduct is available here</u>.

To help ensure the integrity of our learning community, prose assignments you submit to LMS Brightspace 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, <u>mosescsa@nyu.edu</u>, <u>www.nyu.edu/csa</u>

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: <u>https://www.nyu.edu/students/communities-and-groups/student-accessibility.html</u>

#### **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 <a href="http://www.nyu.edu/students/health-and-wellness/courseling-services.html">http://www.nyu.edu/students/health-and-wellness/courseling-services.html</a>

#### **DIVERSITY & INCLUSION**

This course strives to support and cultivate diversity of thought, perspectives, and experiences. The intent is to present materials and activities that will challenge your current perspectives with the goal of understanding how others might see situations differently. To support this approach, this syllabus has been reviewed by NYU Stern's Office for Diversity and Inclusion to ensure inclusivity and a representative pedagogical approach to learning. By participating in this course, it is the expectation that everyone commits to making this an inclusive learning environment for all.

# TENTATIVE CLASS SCHEDULE

Week	Topics
1. 2/9	Introduction to Financial Modeling
	- Modeling overview
	<ul> <li>Modeling best practice and shortcuts</li> </ul>
	- Automating financial analysis overview
2. 2/16	Modeling Working Capital Management
	- Short-term liquidity
	- Receivable/Payable/Inventory management
3. 2/23	Modeling Start-up Businesses
	- Start-up budgeting
	- Tools for start-up businesses
	- Presenting financial models
4. 3/2	Writing your First Macros Using VBA
	- Overview and configuration of Excel VBA
	- Recording macros
	- Changing cell attributes
	- Creating charts
5. 3/9	Enhancing your Macros
	- Creating and applying styles
	- Selecting dynamic ranges
	- Customizing chart properties
6. 3/23	Building financial forecasts
	- Setting up the model
	<ul> <li>Modeling operating performance</li> <li>Modeling asset intensity</li> </ul>
	<ul> <li>Modeling asset intensity</li> <li>Modeling debt</li> </ul>
	Building financial forecasts (cont.)
7. 3/30	- Modeling taxes
	<ul> <li>Modeling taxes</li> <li>Modeling equity method investment</li> </ul>
	<ul> <li>Modeling non-controlling interest holders</li> </ul>
	<ul> <li>Modeling equity and number of shares</li> </ul>
9 4/6	Forecasting EPS and statements – a comprehensive case
8. 4/6	- 7 steps in building financial statements
9. 4/13	Forecasting EPS and statements – a comprehensive case (cont.)
9. 4/13	- 7 steps in building financial statements
10. 4/20	Automating Financial Analysis
10. 4/20	- Combining VBA modules and passing arguments
	- Organizing data from online and offline sources
	- Automating common financial metrics
11. 4/27	Synthesis: Creating Custom Models Using VBA
11. 7/2/	- Defining your own Excel functions
	- Acquiring data from a website
	- Analyzing company performance using text
12. 5/4	Group Presentations