Overview:

This is the introductory Master of Science in Financial Engineering course in economics, covering important foundational issues in micro, macro, and financial economics. Students who successfully complete this course will be well versed in the fundamentals of economic analysis and the vocabulary and reasoning employed by economists on Wall Street and in financial environments throughout the capitalist world. I assume that each student has the ability to do algebraic manipulations and the calculus easily.

I expect that students will take this course and its requirements seriously. Students must do each week’s reading before class, and must attempt to do the homework problems assigned. I know that students will have difficulties understanding the text in places and doing the homework; this is not a problem. Our class time will be spent elaborating on the text and working on the more difficult concepts presented in it, expanding on the ideas presented there to encompass topical events, and explaining homework problems. I do not wish to spend class time explaining the text to students who have not tried to read it.

Grading Policy:

I do not “give” grades – I report the grades that students earn. In general, this class’ requirements can be compared to the job requirements of a professional. If the quality of the work you hand to me would, if I were your supervisor in a workplace, place you on the fast-track to a promotion then you have earned an “A”. If I were your supervisor and you were to give me work that would lead me to believe that you were a steady employee but not a potential “star” then that work would correspond to a grade of “B”. Work that would cause me to think about whether or not you had an extended future as my employee is “C” work, and work submitted that would cause me to call the HR department is “F” work. NYU-Tandon uses a grading system for graduate courses where possible grades are: \{A, A-, B+, B, B-, C+, C, F\}

This class’ grade will be computed using 3 factors: a midterm exam, a final exam, and homework. Homework is collected; your ability to participate intelligently in class and do well on the tests requires that you attempt the homework each week. The percentage weights of each factor are:

- Midterm Exam: 40%
- Final Exam: 45%
- Homework: 15%

Each week I will choose one or more homework problems to grade. Grading all problems for all students is too heavy a burden for the TA. By the Law of Large Numbers (which does not apply for a sample of this size nut I appeal to it anyway here), a random sampling of your homework answers should approximate the results that would have been obtained if all problems were graded.
**Texts:**


AND


**Schedule of Classes and Assignments:**

<table>
<thead>
<tr>
<th>Week</th>
<th>Class Dates</th>
<th>Reading To Complete</th>
<th>Homework¹</th>
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</table>
| 1    | 3 September  | [ADW&M] Chapter 1 – Introduction²  
Chapters 2 and 3 – Theory of the Consumer | Chapter 2: Problems 7,10  
Chapter 3: Problems 5*,6,8 |
| 2    | 10 September | [ADW&M] Chapters 5 and 6 – Theory of the Firm  
Chapter 7 and 8 – Mathematical Models of Economic Markets | Chapter 5: Problems 3,5  
Chapter 6: Problems 6,10  
Chapter 7: Problems 2,4  
Chapter 8: Problems 4,6 |
| 3    | 17 September | [ADW&M] Chapters 5 and 6 – Theory of the Firm  
Chapter 7 and 8 – Mathematical Models of Economic Markets | Chapter 7: Problems 2,4  
Chapter 8: Problems 4,6 |
| 4    | 24 September | [ADW&M] Chapters 11 and 12 – Introduction to Financial Strategy | Chapter 11: Problems 6,10  
Chapter 12: Problems 4,6 |
| 5    | 1 October    | [ADW&M] Chapters 9 and 10 – Sophisticated Market Pricing | Chapter 9: Problems 2,5  
Chapter 10: Problems 4,8 |
| 6    | 8 October    | Midterm Exam                                             |           |
| 7    | 15 October   | [FN&Z] Chapters 2, 3, and 4 – Firm Valuation             | Chapter 2: Problems 10,14  
Chapter 3: Problems 3,8  
Chapter 4: Problems 3,10 |
| 8    | 22 October   | [FN&Z] Chapters 5 and 6 – Perfect Capital Markets        | Chapter 5: Problems 9,10  
Chapter 6: Problems 2,9 |
| 9    | 29 October   | [FN&Z] Chapter 7 and 8 – Governance                      | Chapter 7: Problems 9,10  
Chapter 8: Problem 16 |
| 10   | 5 November   | [FN&Z] Chapters 9 and 10 – Contingent Claims             | Chapter 9: Problem 6a,b,c  
Chapter 10: Problem 8 |
| 11   | 12 November  | [FN&Z] Chapters 13 and 14 – Portfolio Choice and the CAPM | Chapter 13: Problems 1,4  
Chapter 14: Problem 4 |
Chapter 21: Problems 3,7 |
Chapter 24: Problems 6,9 |
| 15   | 17 December  | Final Examination                                         |           |

* = answer in the back of the textbook

¹ Homework problems listed here may change as the semester progresses. I will send email each time the syllabus changes – it is your responsibility to make sure that you read your Poly email.

² I realize that many of you will come to the first class without reading chapters 1, 2, and 3 of the textbook. This is not a disastrous problem.

³ There is no class on 26 November – this is Thanksgiving Day
Each class session is available live on Zoom and will be recorded. Students may choose to attend the class either in the classroom or by Zoom. You can make this choice at any time for any reason; I do not need to know your reasons and you do not need my permission. Our classroom seats 15 students in a socially-distant way. So far there are 18 students enrolled in this course; 9 have said that they will be studying only remotely. This means that at this time there are only 9 students that will be on campus; these 9 can attend the course in the classroom each week. If more students enroll or some students choose to return to campus and the total number of students on campus in this course becomes greater than 15 we will need to create 2 class cohorts that alternate attendance in the classroom.

There is the possibility that we may, mid-semester, find ourselves entirely online. I’m prepared for such a transition, though I sincerely hope that this does not happen.

**Zoom link for office hours:** [https://nyu.zoom.us/j/97346625995](https://nyu.zoom.us/j/97346625995)

**Exams:**
The midterm exam and the final exam for this course will be conducted online. More details will be available soon.

**Disability Disclosure Statement:**
Academic accommodations are available for students with disabilities. Please contact the Moses Center for Students with Disabilities (212-998-4980 or mosescsd@nyu.edu) for further information. Students who are requesting academic accommodations are advised to reach out to the Moses Center as early as possible in the semester for assistance.