FNCE 7070 – Valuation

Spring 2024 Syllabus
Monday/Wednesday — VANC B11

Teaching Team

Instructor
Professor Amy Huber, Ph.D., CFA
Email: amyhuber@wharton.upenn.edu

Teaching Assistants
Section 1 @ 1:45pm
Phil Cooke Sese Nguyen
pcooke24@wharton.upenn.edu sese@wharton.upenn.edu

Section 2 @ 3:30pm
Rita Cui Chisom Onyishi
ritacui@wharton.upenn.edu sovemba@wharton.upenn.edu

Course Description

Valuation is part art, part science. The objective of this class is to show you the science, and in that process, help you find your own style of art. To achieve this, we focus on two things. First, we will develop a rigorous framework that serves as a guide to any valuation task. Second, we will learn to properly apply theoretical finance and accounting concepts to valuing real companies. The course culminates in a capstone project where you compose a comprehensive valuation report for a company of your choice and present your recommendation to the class.

While the course is designed for students with little or no practical work experience in valuing companies, this course is technical and challenging. Therefore, it comes with an extremely heavy workload and may not resonate with all students. Students who hope to never see financial statements again are advised to explore alternative course options.

To those who are motivated to learn valuation techniques in depth, this course will impart several benefits. The techniques you acquire are directly applicable to public market investing, be it for personal portfolio management or hedge fund strategies. The framework that we will develop also flexibly applies to diverse roles, including business development, consulting, and investment banking. Finally, the ability to combine a rigorous process with prudent assumptions is an invaluable skill, in business and in life.
Non-Negotiable Prerequisites

1. Introductory Corporate Finance course.
3. Working knowledge of regression analysis.
4. Working knowledge of Microsoft Excel.

Course Material

Course Textbook:

Please make sure to purchase the 2nd edition, as it contains more recent data and essential updates about the U.S. tax code. The book is available through the bookstore or at this link: https://cambridgepub.com/book/corpval2e.

Course Website:
The Canvas link for this course is https://canvas.upenn.edu/courses/1759590.

This site will contain (1) materials for the Valuation Projects, (2) additional readings, (3) abridged versions of the lecture slides.

Other Useful References:

Corporate Finance by Berk and DeMarzo. Or an alternative corporate finance textbook (such as Principles of Corporate Finance by Brealey, Myers, and Allen). This text serves as background reading for finance concepts you should already know.

Financial & Managerial Accounting by Hanlon, Magee, Pfeiffer, and co-authors. Or an alternative financial accounting textbook (such as Financial Accounting by Libby, Libby, and Short). This text serves as background reading for accounting concepts you should already know.

The Dark Side of Valuation by Damodaran. This valuation textbook covers advanced concepts linked to the valuation of young, distressed, and complex businesses.

Reading the Financial Times (http://www.ft.com), the Wall Street Journal (http://www.wsj.com), or any close substitute is highly recommended. Keeping up with financial news will be essential for valuing your company.
Grading

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>20%</td>
</tr>
<tr>
<td>Valuation of a Company (divided in 3 stages)</td>
<td>30%</td>
</tr>
<tr>
<td>Exam I</td>
<td>25%</td>
</tr>
<tr>
<td>Exam II</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Final grades are determined using a class-wide (i.e., across both sections) curve that respects any constraints imposed by Penn or Wharton.

This course cannot be taken as Pass/Fail.

(1) Class Participation and Classroom Etiquette

Please come to each class as you would to a business meeting: punctual, prepared, and proactive. Prepared entails reading the assigned textbook chapters prior to lectures and having worked on assigned exercises. Proactive requires that everyone be willing to engage thoughtfully and be willing to have their thinking challenged.

Classroom Etiquette:

- Attend every lecture, on time, and remain until the lecture is completed.
- Bring your nameplate to every class.
- Tablets in a flat position are allowed for digital note-taking. Please refrain from using any other electronic devices during class. You may find a basic calculator helpful.

Students must attend the section for which they are registered. In case of a rare conflict, students may attend another section but must notify me by 10:00 AM on the day of the lecture.

Please note that attendance to the first lecture is mandatory for all registered students. It is also strongly encouraged for the students on the waitlist. Any registered student who fails to attend the first lecture will be automatically de-registered from the course.

(2) Valuation Project and In-Class Exercises

The capstone project for this course is to value a company of your choice with a team (more on teams below). Each team will submit three separate written reports, one for each stage of the Valuation Project. Late submission will incur a penalty of 10% per calendar day, counting the day of submission. Each team will moreover present their valuation recommendations to the whole class. Complete instructions for this project are available on the course website. Team composition and company names are due on January 24th.

Project due dates are marked on the course calendar below. Assignments not related to the Valuation Project need not be submitted but must be prepared before class. You are not expected to get everything correct, but you are expected to have carefully thought about each question. In-class discussions of these assignments form part of your Class Participation grade.
(3) Exams

The first exam will be administered in class on February 14th and will cover Chapters 1-6. The second exam will be administered in class on March 27th and will cover all material covered in the course (with a strong emphasis on material covered after the first exam). Please ensure that you are on campus to take both exams on those days. If your travel or interview plans conflict with the schedule of the course, you must change your plans or drop the course now.

The best way to prepare for the two exams is by going through the examples from the lecture notes and working through practice exams prior to taking the actual exams.

(4) Regrade requests

Regrades of exams will be considered when a written request has been submitted to me detailing the specific nature of the request. Requests must be submitted within 48 hours of the exam being returned. In addition, I reserve the right to regrade the entire exam. This may result in a lower grade being assigned than originally received.

Teams

Being able to work effectively in teams is a crucial skill for workplace success. All assignments, including the Valuation Project, should be done in the same team. Please self-select teams of 3-5 people, no exceptions. If you have six people, please create two teams of three.

In choosing teammates, please keep in mind the broad skill set that each team needs to possess: accounting, finance, and Excel modeling. The most successful teams comprise team members who target the same performance/grade for the course. The teaching team will not become involved in team problems.

You are strongly encouraged to form teams with students in your assigned section. Cross-section teams are allowed only if all team members can come to either section for the final investment committee presentation.

Important Note Concerning Group Grading Process

To provide effective governance and to encourage constructive teamwork, grades for the Valuation Project will be adjusted according to contributions as assessed by the other members of your team. All team members are required to provide a response to the survey question below at the end of the course. The resulting “contribution grade” will be used to adjust each team’s grade in the Valuation Project for all of its members.

Survey question to be answered by all students enrolled in the course:

Please provide an allocation out of 100% for the contribution made by the individual members of your group to the Valuation Project, including any measure of your own contribution, such that the sum totals 100%.
Each team member’s contribution grade will be assessed as the average of the percentages reported by the other members of the team. See the chart below as a sample template:

<table>
<thead>
<tr>
<th>Group member name:</th>
<th>Howard Marks</th>
<th>Marie Curie</th>
<th>Mary O’Connor</th>
<th>Michael Jordan</th>
<th>Tom Brady</th>
<th>Percent allocation (out of 20%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Howard Marks</td>
<td>20%</td>
<td>22%</td>
<td>22%</td>
<td>19%</td>
<td>21%</td>
<td>21.0%</td>
</tr>
<tr>
<td>Marie Curie</td>
<td>21%</td>
<td>18%</td>
<td>22%</td>
<td>19%</td>
<td>21%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Mary O’Connor</td>
<td>22%</td>
<td>24%</td>
<td>20%</td>
<td>19%</td>
<td>21%</td>
<td>21.5%</td>
</tr>
<tr>
<td>Michael Jordan</td>
<td>18%</td>
<td>16%</td>
<td>24%</td>
<td>19%</td>
<td>19%</td>
<td>17.8%</td>
</tr>
<tr>
<td>Tom Brady</td>
<td>19%</td>
<td>20%</td>
<td>18%</td>
<td>19%</td>
<td>18%</td>
<td>19.0%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
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</tbody>
</table>

Your contribution grade is the average of the contribution allocated to you as reported by your teammates. For example, if your 4 teammates gave you contribution allocations of 21%, 22%, 19% and 21%, such as for Marie Curie above, then your average contribution grade would be 20.8%. As another example, had your teammates given you contribution allocations of 19%, 20%, 18%, and 19%, such as for Tom Brady above, then your contribution grade would be 19%.

**Your contribution grade will then be used to either add to or deduct from your team’s overall grade on the Valuation Project,** according to the distance of your contribution grade from the group mean, which would be 20% for teams of 5, or 25% for teams of 4. Each 1% above/below the mean will result in an addition/deduction of 1% of the Valuation Project grade. For example, if your team received 24/30 on the Valuation Project and your contribution grade is 21.5% in a team of 5, such as for Mary O’Connor above, so that you are 1.5% above the mean of 20%, then your final grade on the Valuation Project will be $101.5\% \times \frac{24}{30} = 24.36/30$.

**Pedagogical Support**

This course is challenging. To help you succeed, the teaching team will host regular office hours and multiple review sessions before each exam.

**Office hours:**

<table>
<thead>
<tr>
<th>Host</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA</td>
<td>Tuesday</td>
<td>7:30PM-8:30PM</td>
<td>Zoom (Link on Canvas)</td>
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<tr>
<td>TA</td>
<td>Friday</td>
<td>11AM-noon</td>
<td>Zoom (Link on Canvas)</td>
</tr>
<tr>
<td>Lippincott Library</td>
<td>M/T/W/Th</td>
<td>11:30AM-12:30PM</td>
<td>JMHH 251</td>
</tr>
<tr>
<td>Professor Huber</td>
<td>Thursday</td>
<td>3:30PM-4:30PM</td>
<td>SHDH 2454</td>
</tr>
</tbody>
</table>

**Review sessions:**

There will be two TA-led review sessions before each exam. In addition, several of our class meetings will be reserved for questions about the Valuation Project and/or in preparation for the exams.
Academic Integrity

No member of the class may engage in or tolerate academic fraud, such as cheating, plagiarism or lying. The teaching team believes strongly in giving certain liberties to students, and in return we expect honest and honorable conduct, including compliance with the Wharton MBA Code of Ethics and the University of Pennsylvania’s Code of Academic Integrity.

Examinations are to be the work of the individual student using only the material permitted during the examination. Submitted assignments should be the work of only the team members listed on the title page of the document. Students should not in any way rely on the work of prior students or current students who are not on their team. This prohibition extends to prior homework, cases, or projects that are directly relevant to the assignment being completed. When a project requires you to produce a forecasting/valuation model, the use of a model not created exclusively by the students on the team for the purposes of this class is a violation of the code of academic integrity. For all submitted assignments, students must start with an Excel spreadsheet which is at most populated with raw data. Moreover, as detailed in the Valuation Project Guidelines, the company being valued must be one that none of the team members has valued before. If you have questions concerning any of the above, please see me for a clarification before using any questionable material. Violations of the above policy will result in a failing grade in the course.

Questions and Feedback

Please feel free to contact any member of the teaching team if you have questions, comments, concerns, or suggestions. We are here to facilitate your learning and make sure your expectations for this course are met. We welcome feedback at any time so we can improve the course as it progresses.
Course Calendar

N.B.: Topics covered, assignments, and dates are subject to change.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>17-Jan</td>
<td>Introduction to Course and Valuation Process</td>
<td>Ch 1</td>
<td></td>
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<tr>
<td>22-Jan</td>
<td>Free Cash Flow</td>
<td>Ch 3</td>
<td>Free Cash Flow: P3.1</td>
</tr>
<tr>
<td>24-Jan</td>
<td>Ratio and Industry Comps</td>
<td>Ch 2</td>
<td><strong>DUE: Names of 3 Companies to Value</strong></td>
</tr>
<tr>
<td>29-Jan</td>
<td>Forecasting and Financial Modeling</td>
<td>Ch 4</td>
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<tr>
<td>31-Jan</td>
<td>Data Overview &amp; Modeling Complications</td>
<td>Ch 4</td>
<td>Interest Tax Shield: P3.12</td>
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<tr>
<td>5-Feb</td>
<td>DCF Valuation Methods</td>
<td>Ch 5</td>
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<tr>
<td>7-Feb</td>
<td>Continuing Value Estimation</td>
<td>Ch 6</td>
<td><strong>DUE: Project Stage 1</strong></td>
</tr>
<tr>
<td>12-Feb</td>
<td>Catch-up &amp; Review</td>
<td></td>
<td>Discounted Cash Flow: P5.6</td>
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<tr>
<td>14-Feb</td>
<td><strong>EXAM I (IN CLASS)</strong></td>
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<tr>
<td>19-Feb</td>
<td>CAPM</td>
<td>Ch 8</td>
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<tr>
<td>21-Feb</td>
<td>Cost of Equity</td>
<td>Ch 8</td>
<td></td>
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<tr>
<td>26-Feb</td>
<td>Cost of Debt</td>
<td>Ch 9</td>
<td><strong>DUE: Project Stage 2</strong></td>
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<tr>
<td>11-Mar</td>
<td>Levering and Unlevering</td>
<td>Ch 10</td>
<td></td>
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<tr>
<td>13-Mar</td>
<td>Levering and Unlevering</td>
<td>Chs 10, 11</td>
<td>Cost of Capital: P10.7</td>
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<tr>
<td>18-Mar</td>
<td>Cost of Capital Complications</td>
<td>Chs 11, 12</td>
<td></td>
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<tr>
<td>20-Mar</td>
<td>Market Multiples</td>
<td>Chs 13, 14</td>
<td></td>
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<tr>
<td>25-Mar</td>
<td>Catch-up &amp; Review</td>
<td></td>
<td>Cost of Capital: P11.1</td>
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<tr>
<td>27-Mar</td>
<td><strong>EXAM II (IN CLASS)</strong></td>
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<tr>
<td>1-Apr</td>
<td>Special Topic: International Valuation</td>
<td>Ch 17</td>
<td><strong>DUE: Project Stages 1 + 2 + 3</strong></td>
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<tr>
<td>3-Apr</td>
<td>Valuation Project Presentations</td>
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<tr>
<td>8-Apr</td>
<td>Valuation Project Presentations</td>
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<tr>
<td>10-Apr</td>
<td>Valuation Project Presentations</td>
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<tr>
<td>15-Apr</td>
<td>Guest Speaker: PE and HF in Practice</td>
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<tr>
<td>17-Apr</td>
<td>Project Feedback and Final Words</td>
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