



## **B8009 – Financial Statement Analysis and Valuation** **Spring 2021 – Bidding Syllabus**

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Class Hours: Section 1 - Tuesday, 8:30-11:45 (Warren 209)

Section 2 - Tuesday, 2:00-5:15 (Warren 207)

Office Hours: Tuesday, 12:30-1:30PM, and by appointment

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Review Sessions: TBA

### **Course objective, content and organization**

The objective of the course is to provide students with hands-on experience in financial statement analysis. Students will be exposed to the theoretical concepts of fundamental analysis, general tools of financial analysis, and practical valuation issues. By the end of the course, students should be comfortable with using firms' financial statements (in conjunction with other information) to develop an understanding of their performance and to establish a basis for making reasonable valuation estimates. The course does not assume market efficiency - it develops techniques for challenging traded prices, in order to assess whether investments are appropriately priced.

We use an integrated framework that combines strategy, financial reporting, financial analysis and valuation. Early in the course we develop an accounting-based valuation framework that requires understanding, organizing and summarizing of financial data. After establishing the theoretical foundations of our model, we conduct: (i) a reporting strategy analysis: assessing a firm's value proposition and identifying key value drivers and risks; evaluating the degree to which a firm's accounting policies capture the underlying business reality; assessing a firm's earnings quality; making accounting adjustments to eliminate GAAP issues and management biases; and (ii) performance analysis and valuation: evaluating current performance and its future sustainability, making forecasts of future profitability and risk, and valuing businesses using earnings and book value data. Then, we apply the above framework to a variety of business valuation contexts, including equity-investment analysis, IPOs, and mergers.

The teaching method involves a mix of lectures, cases, discussions, exercises and project work. All cases, and the related assignments, will be shared with the class at least a week prior to the due date. Most of the cases are from Harvard Business School.

The required text is *Financial Statement Analysis and Security Valuation*, 5th edition (2013), by Stephen H. Penman, Irwin/McGraw-Hill publishing. The book contains more materials than what we cover in class. Nonetheless, it is an excellent resource for students who are interested in a deeper analysis. Teaching notes, which will be published on [Canvas](#), contain most of the relevant course materials.

Sharing of course materials with anyone who is not currently enrolled in the course is not allowed (both giving and receiving). It would be considered a violation of the honor code (and potentially of copyright).

### Who should take this course?

This course is aimed at all students who expect at some point in their careers to use financial statements to evaluate the performance, prospects, and value of a business. This includes equity analysts (both buy and sell side) who issue buy and sell recommendations on stocks, corporate financial analysts (e.g., calculating the value generated by strategic scenarios), private equity analysis (e.g., evaluating acquisitions and restructuring) and personal investing. Issues discussed are of interest to students contemplating careers in investment banking (particularly in equity research), security analysis, consulting, public accounting, and corporate finance.

### Connection to the core

The learning in this course utilizes, builds on and extends concepts covered in the core:

Core Course	Concepts
Financial Accounting	<ul style="list-style-type: none"> <li>• The accounting equation (<math>A = L + OE</math>), and the different financial statements (BS, IS, OE and CF)</li> <li>• Accrual accounting concepts (e.g., realization, matching, conservatism) and cash versus accrual accounting</li> <li>• Revenue recognition – rules and judgment</li> <li>• Individual line items (e.g., AR, PPE, Investments, Bonds, Leases, Tax)</li> <li>• Basic financial statement analysis (e.g., ratios)</li> </ul>

Corporate Finance	<ul style="list-style-type: none"> <li>• Firm valuation models</li> <li>• Risk and cost of capital (WACC, CAPM)</li> <li>• Time value of money</li> <li>• Excel modeling</li> </ul>
Strategy Formulation	<ul style="list-style-type: none"> <li>• Sources of economic value</li> </ul>

Students are expected to have mastered these concepts and be able to apply them in different settings.

### Method of Evaluation

Your grade will be assessed based on a project (40%), a mid-term exam (25%), problem sets and in-class assignments (20%) and class participation (25%). (I will reduce the weight on your lowest component by 10%.) Note that a passing grade on both the project and the mid-term exam is required in order to receive a passing grade for the course. (i) **Project (40%)** – A group project where you apply a complete financial statement analysis of a firm using the course framework, and provide an investment recommendation; (ii) **Mid-term exam (25%)** (“in-class”). The purpose of the exam is to test basic understanding of the principles of fundamental analysis; (iii) **Problem sets and in-class assignments (20%)** – by session deliverable. Those could be a problem set, and/or a pre-case write up, and/or a brief company analysis, and/or an assignment or similar. You are allowed to work on the assignments in groups; however, each individual is to submit his or her own written version of the assignment. That is, the problem sets and in-class assignments are defined as **Type B** assignments. Your grade on each assignment will incorporate your effort in attempting the questions. The assignments are to be submitted by beginning of the specific session on the required date (no late submissions will be allowed); and (iv) **Class participation (25%)** – that includes attendance, on-time arrival and professional behavior during class (including but not limited to, not leaving while class is in session, no private conversations, no use of unauthorized electronics like computers, tablets and phones), Poll Everywhere responses, preparedness, responses to questions asked during class (cold calls or voluntary), questions, comments and sharing of your professional experience and similar demonstrations of positive engagement.

**Prior to our first meeting you should:**

- Review and refresh your knowledge of the core concepts mentioned above.
- Skim Penman Chapters 1-4.
- Read the Hurry Date case, and be ready to discuss (not for submission):

Assume you are an analyst, evaluating *HurryDate's* performance.

Consider the following questions:

1. What is *HurryDate's* strategy? What are the key success and risk factors associated with this strategy for the firm individually, and this industry generally?
2. Where, if at all, do the financial statements reflect these success and risk factors? What are the primary balance sheet and income statement accounts?
3. How has *HurryDate* performed in the past? What key measures can be used to gauge the company's success?
4. What are the primary options for Deckinger and Testani to sustain *HurryDate's* growth? Which appears to be the best option?
5. If Deckinger and Testani decide to sell *HurryDate* outright, what would be an acceptable value for the firm? What would be the key assumptions to consider in any negotiation of this price?

## Individual and Group Work Definitions

<u>Type</u>	<u>Designation</u>	<u>Grade</u>	<u>Preparation of submission</u>	<u>Discussion of Submission*</u>	<u>Discussion of Concepts**</u>
A	Group Work	Same grade for all group members	By the group	Permitted to discuss (within group)	Permitted
B <sup>1</sup>	Individual w/ Discussions of Concepts and Submission	Individual grade	Individual preparation	Permitted to discuss; sharing solutions or submission files is not allowed	Permitted
B <sup>2</sup>	Individual w/ Discussions of Concepts Only	Individual grade	Individual preparation	Not permitted to share/discuss solutions or submission	Permitted
C	Individual	Individual grade	Individual preparation	Not permitted to share/discuss solutions or submission	Not permitted***

\* Submission means any work and/or output pertaining to the specific assignment. If an assignment submission contains a calculation or decision related to a specific set of data and setting, discussing the details how to make this calculation or decision with regard the data/setting is to discuss the submission. Providing another student with a draft of the calculation or decision is sharing the submission.

\*\* Concepts mean any ideas, examples, readings, or other related materials from the class/course. Conceptual discussion should not be based on a specific set of data or setting related to a calculation or decision required in the assignment, but could be based on other related examples, preferably those from class/course materials.

\*\*\* As no conceptual discussion is permitted, Type C is akin to a take-home exam.

## **Inclusion, Accommodations, And Support for Students**

At Columbia Business School, we believe that diversity strengthens any community or business model and brings it greater success. Columbia Business School is committed to providing all students with the equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability.

Columbia Business School will make reasonable accommodations for persons with documented disabilities. Students are encouraged to contact the Columbia University's Office of Disability Services for information about registration. Students seeking accommodation in the classroom may obtain information on the services offered by Columbia University's Office of Disability Services online at [www.health.columbia.edu/docs/services/ods/index.html](http://www.health.columbia.edu/docs/services/ods/index.html) or by contacting (212) 854-2388.

Columbia Business School is committed to maintaining a safe environment for students, staff and faculty. Because of this commitment and because of federal and state regulations, we must advise you that if you tell any of your instructors about sexual harassment or gender-based misconduct involving a member of the campus community, your instructor is required to report this information to a Title IX Coordinator. They will treat this information as private, but will need to follow up with you and possibly look into the matter. Counseling and Psychological Services, the Office of the University Chaplain, and the Ombuds Office for Gender-Based Misconduct are confidential resources available for students, staff and faculty. "Gender-based misconduct" includes sexual assault, stalking, sexual harassment, dating violence, domestic violence, sexual exploitation, and gender-based harassment. For more information, see <http://sexualrespect.columbia.edu/gender-based-misconduct-policy-students>

**TENTATIVE GROUP PROJECT GUIDELINES**

The most significant component in the course learnings is a group project. The project is due by **April 9, 2021**, and has a weight of 40% of the final grade. Below are the project's guidelines.

**Objective.** You are to build *your own* long-term investment thesis: **Invest** or **do not invest** in a publicly traded company - based on financial analysis (and using tools developed in the course).

**Process.** Students should self-organize in groups of three or four (and under no circumstances of more than five) and select a public company to analyze. The project must contain only original work, and is a Type A assignment.

**The Final Product.** Your submission should contain three major parts: (i) Executive Summary; (ii) Industry Analysis; and (iii) Company Analysis. (i) Your **Executive Summary** (no more than one page) must contain a comparison of the current price per share with its intrinsic value (what you estimate a share to be worth), and your investment decision. You should also provide the main insights behind your intrinsic value estimation and the primary reasons (positive and negative) for your investment recommendation. (ii) The **Industry Analysis** (about 1-2 pages plus exhibits) should identify the industry structure and major players, key trends in the industry, primary performance metrics and key success and risk factors. Pay special attention to the analysis of sustainable competitive advantage (e.g., barriers to entry). Include exhibits, if useful. Finally, the main part of the project is (iii) the **Company Analysis** (about 6-8 pages plus exhibits). Your report should follow the course framework: Strategy analysis (know the business), accounting and financial analysis (key policies, trust the numbers, do they reflect success and risk factors, management motives, key drivers of performance, how well the firm is performing), forecast (with justified assumptions, performance sustainability assessment, and support for choice of horizon) and valuation (using the **residual earnings** model and including justified assumptions, sensitivity analysis, terminal value assessment and justification, and reconciliation with existing analysts forecasts). If you made any accounting adjustments to the

published reports, highlight, motivate and explain. Exhibits **must** include the four main financial statements (from the 10-K or the Annual Report), and the following worksheets from the FSA Excel model: Ratio Analysis, Key assumptions (with support) and Pro Forma & Valuation. In addition, both the 10-K (or the Annual Report) and the complete FSA Excel file should be submitted electronically.

Any properly cited public source is a fair game for your analysis. As the scope of the project is large, I suggest you focus on first order items. Also, consistent with the emphasize during the course, focus more on operating assumption and much less on cost of capital and capital structure (unless you predict major changes). In reviewing the project, I will pay special attention to the soundness of insights offered and the support for your forecasts. While there is no pre-set limit on the project's length, my expectations are in the neighborhood of 15 pages plus figures, tables, spreadsheets and appendices.

**Deadlines.** (Dates are tentative and subject to change – final instructions will be provided in class.) (i) February 9, 2021 – submit (in no more than one page), the names of the group members and the company you elected to analyze. Also, provide, at a bullet point level, the industry and the firm strategy analysis; (ii) March 23, 2021 – submit your excel with the historical financial statements (3-5 years), ratio analysis and preliminary forecast and valuation; (iii) April 9, 2021 – final project submission; and (iv) April 13, 2021 – project presentation.