

## **Corporate Finance B5300**

# Spring 2022

#### **INSTRUCTOR**

Professor Andrew Hertzberg

E-mail: ah2692@gsb.columbia.edu

Office hours: By appointment

Communications from professor and teaching assistants about the course will take place through Canvas. Students should make sure they regularly check for announcements and messaging notifications

#### **COURSE DESCRIPTION**

Corporate Finance is an introductory finance course that is required for all MBA students. It is therefore designed to cover those areas of finance that are important to all managers whether they specialize in finance or not. At the end of the course you will be able to value a firm or a project. In order to reach this goal, we will cover the following topics:

- 1. General framework for valuation and discounting (including, as special cases, valuation of stocks and bonds, and evaluation of investment opportunities)
- 2. The free cash flow method for firm valuation
- 3. Basic concepts of risk and return and identification of opportunity cost of capital
- 4. Choice of capital structure: how will the firm be financed

The course will consist of approximately one-half lecture and one-half in-class case discussions, for which students should prepare carefully. The aim of the course is to provide students with an understanding both of sound theoretical principles of finance and of the practical environment in which financial decisions are made.

## **TEXTBOOKS AND MATERIALS**

The following items are required:

- <u>Teaching notes:</u> Students should download the teaching notes from Canvas before class. These are your primary reference materials for the class.
- <u>Case Materials and Assignments</u>: All case readings and assignments are posted on Canvas.

The (optional) textbook is:

- <u>Corporate Finance: The Core</u>, (5th edition), by Jonathan Berk and Peter DeMarzo (BDM). Suggested readings from this book for each lecture are listed in "Schedule of Sessions and Assignments". I suggest you do these readings prior to class as a supplement to class lecture material. The course ID associated with the textbook at Peasron is: hertzberg98834: You can access the online version of the book at: https://mlm.pearson.com/enrollment/hertzberg98834
- These additional materials are not required, but may be useful to some students:
  - An additional detailed treatment of valuation is <u>Valuation</u>: <u>Measuring and Managing the Value of Companies</u>, (7<sup>th</sup> edition) by Tim Koller, Marc Goedhart, and David Wessels (McKinsey & Company Inc.)
  - <u>The Wall Street Journal</u> and/or <u>The Financial Times</u> are fundamental reading for any business school student. Class discussion will often reference news items.

#### **CLASSROOM NORMS AND EXPECTATIONS**

Students are expected to adhere to CBS Core Culture in this class by being Present, Prepared, and Participating.

<u>Laptop computers and other devices</u> – You must bring your laptop to class. You should sign in to Zoom <u>through Canvas</u> at least 15 minutes before the scheduled start of lecture.

#### **TEACHING ASSISTANTS AND REVIEW SESSION**

Review sessions will be held on Friday 8:30am to 10:00am. A schedule of the review sessions and the material that will be covered is provided at the end of the syllabus. This includes three excel review sessions directed to helping students become efficient at doing valuation in excel. Any materials covered in review sessions will be posted on Canvas. Our TA team will be responsible for running the review sessions, common to all clusters. You can schedule office hours (in the library) with your cluster TA by email. He/she should be the first point of contact for queries about grading or assignments.

<u>Cluster A</u>: Greta Simons: GSimons22@gsb.columbia.edu

<u>Cluster B</u>: Kevin Hsu: KHsu22@gsb.columbia.edu

### **GRADING**

Grades will be calculated using the following weights:

Case write-ups 25%
Three Problem Sets 15%
Final Exam 50%
Participation 10%

### Case Write-ups

The case assignment, excel data, and reading will be available on Canvas at least one week before the case write-ups are due.

For each case you are required to answer all questions in the "Assignment" portion of the handout. You do not need to explicitly answer the discussion questions; they are only intended to give you ideas and prepare you for class discussion.

Cases are solved in your learning teams. Each case should be answered in excel. All analysis should be succinctly and clearly explained within the excel document. It should be clear how your calculations were performed. You should list and justify any assumptions you make.

Each group will turn in one solution. Case write-ups should be submitted electronically (an excel file) through the Drop Box in Canvas no later than 15 minutes before the start of the lecture on the day in which they are due. Late submission will not be accepted. You should have a copy of assignment answers (electronic or hardcopy) to refer to during class discussion.

Case write-ups will be graded on a ten-point scale. The first case write-up will be graded leniently so that you can receive feedback that will help you do your future case write-ups. Your grade will depend on the logic of your analysis and the clarity of your write-up.

### Problem Sets

There will be three problem sets. You can discuss the concepts related to the problem set with other people in your cluster but the answer to the specific questions in your problem set should be your own individual work. Problem sets should be submitted electronically (an excel file) through the Drop Box in Canvas no later than 15 minutes before the start of the lecture on the day in which they are due.\*\* Late submission will not be accepted. Assignments solutions should be clearly explained and formatted to ensure they are easy to read. \*\*Problem Set 2 is due by 8pm Sunday January 30<sup>th</sup> – there is no class that day.

### Final Exam

The final exam will occur during the exam period at the end of semester. Your primary task in the exam will be a full firm valuation that you will solve in excel. In addition, there will also be short questions testing your knowledge of finance concepts that are introduced throughout the course. The exam is open book and notes. You will need your laptop to solve the case. The length of the exam is five hours.

All your assignment submissions are subject to the <u>CBS Honor Code</u>. Violations of the CBS Honor Code may lead to failing the assignment, failing the course, suspension, and/or dismissal. In order to avoid ambiguity that may lead to unintentional violations of the Honor Code, assignment description types have been standardized and specified below.

Туре	<u>Designation</u>	<u>Grade</u>	Preparation of submission	Discussion of Submission*	Discussion of Concepts**
A	Group Work	Same grade for all group members	By the group	Permitted to discuss (within group)	Permitted
B¹	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
С	Individual	Individual grade	Individual preparation	Not permitted to share/discuss solutions or submission	Not permitted***

<sup>\*</sup> The designated group can be either an assigned study group or a self-selected one.

Case write-ups are "Type A" assignments. Problem sets are "Type B2" assignments

<sup>\*</sup> 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.

<sup>\*\*</sup> 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.

<sup>\*\*\*</sup> 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 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.

## **SCHEDULE OF SESSIONS AND ASSIGNMENTS**

Date	Lecture	Session	Topic	Textbook Reading	Prepare	Turn In	Difficulty
1/7	1	1 2	Introduction: The Valuation Framework Time Value of Money and Discounting	Ch 3, Ch 4			
1/8	2	3 4	Investment Decision Rules: NPV and IRR Valuing Bonds - The Risk Free Rate	Ch 7 Ch 6			
1/21	3	5 6	Applying Discounting to Valuing Stocks Capital Budgeting and Free Cash Flows (FCFs)	Ch 9.1 - 9.2 Ch 2, Ch 8.1 - 8.4	Chocolat Cordon Rouge	Problem Set 1 Case Write Up	
1/22	4	7 8	Projecting FCFs Residual Value		Clarkson 1 <sup>1</sup>		
1/30	N/A	N/A	Assignment Due - No Class			Problem Set 2	
2/4	5	9 10	Valuation 1: Going Concern The CAPM	Ch 10	Clarkson 2	Case Write-Up	Ì
2/5	6	11 12	CAPM Application to Corporate Finance WACC and Leverage	Ch 12	Walmart <sup>2</sup>		
2/19	7	13 14	Valuation 2: Liquidation Capital Structure: M&M and OCS	Ch 14, 15.1-15.3, 16.1-16.4	American Chemical	Case Write-Up	Ì
3/12	8	15 16	Target Capital Structure  Work in Class on Problem Set 3		АНР	Case Write-Up	
3/13	9	17 18	Valuation 3: Buckeye Computer Work in Class on HCA Case			Problem Set 3	Ì
3/14	10	19 20	Valuation using Multiples Work in Class on HCA Case	Ch 9.4			
3/15	11	21 22	Valuation 4: HCA Student Talks		НСА	Case Write-Up	))
3/25	12	23 24	Valuation 5: Soul Cycle Course Summary		Soul Cycle	Case Write-Up	ÌÌ

Notes: 1: Attempt before class, not due for submission

2: We will solve together in class.

## **SCHEDULE OF REVIEW SESSIONS**

Date	Review Session Content		
1/8	Excel Review I: Discounting in Excel (PV, NPV, IRR)		
1/22	Excel Review II: Projecting FCFs w/ Ratios		
2/19	Excel Review III: Valuation in Excel		
3/26	Soul Cycle and Final Exam Review		

Additional Review Sessions will be Announced During the Semester Review Sessions will occur 7:30am - 8:30am