## FINA 4330: Corporate Finance

# Spring 2018

#### Professor

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#### **Teaching Assistant**

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#### Section: Time, Location

16538	Mo/We 10:00am-11:30 am MH	128
15112	Mo/We 11:30am-01:00 pm MH	128
10005	$M_{0}/M_{0} = 02.20$ mm $04.00$ mm $MII$	120

18905 Mo/We 02:30pm-04:00 pm MH 129

### **Course Description**

The objective of this course is to provide students with an in-depth understanding of valuation techniques. We will develop standard valuation tools based on the discounted cash flow (DCF) framework, which is widely used in practice to value firms, assets, and projects. As per the DCF framework, the value of any asset is the sum of present values of all future cash flows from the asset, discounted using an appropriate risk-adjusted discount rate. Although this is simple in theory, the devil is in the detail: what exactly do we mean by cash flows, and how do we obtain them from financial statements? How do we estimate an appropriate discount rate? How is firm value allocated among its various claimants, such as debtholders and shareholders? How do changes in capital structure affect the discount rate and firm value?

By the end of this course, students should be able to:

- Evaluate corporate projects and make decisions based on financial data.
- Understand how changes in capital structure (i.e., debt-equity composition) affect the firm's cost of capital and value.
- Value firms using their financial statements and forecasts of future revenues and costs.

## Prerequisites

The prerequisites for the course are: junior standing, ECON 2304, FINA 3332, and STAT 3331 (also see the Finance department's official website for information on prerequisites). More specifically, I expect you to brush up on the following concepts:

- Time value of money from FINA 3332. You should be comfortable discounting future cash flows, going between present and future value, calculating the present value of annuities and perpetuities, and you should have some familiarity with the risk and return concepts like CAPM and  $\beta$  used for capital budgeting.
- Basic accounting, including: (a) organization of the balance sheet: assets vs. liabilities and equity, current vs. non-current assets/liabilities, (b) organization of the income statement: sales, cost of goods sold, EBITDA, EBIT, EBT, Net income, etc., and (c) accrual accounting.
- Microsoft Excel

### Resources

• **Textbook**: There is no required textbook for the course. All lecture notes and materials will be posted on Blackboard (<u>http://www.uh.edu/blackboard</u>) and should be self-contained and sufficient. If you want to refer to a book, some recommendations are:

Fundamentals of Corporate Finance by Berk, DeMarzo, and Harford

<u>Valuation: Measuring and Managing the Value of Companies</u> by Koller, Goedhart, and Wessels

These books approach finance from different perspectives – the first is more academic, while the second is more practical. Note that the notation used in the books may differ from what we use in class. On Blackboard you can find the relevant chapters/sections of the books for each lecture topic.

**Blackboard**: Be sure you can log in to Blackboard and access this class. Please let me know if you cannot as you must be able to access Blackboard. The syllabus and slides will be posted on Blackboard. In addition, part of your grade relies on assignments administered through Blackboard.

Accounting review: These are two helpful, short and free guides to help you brush up on your accounting skills:

<u>"The Merrill Lynch Guide to Understanding Financial Reports"</u> <u>Merrill Lynch's "How to Read a Financial Report"</u>

Both are uploaded on Blackboard.

## Grades

Your grades will be determined as follows. I will calculate your score using two different weights. Your final score will be the highest of the two methods. Class participation can help determine the grade if the student is on the margin between grades.

Itom	We	Weight	
Item	Method 1	Method 2	
Attendance	5%	5%	
Problem sets	25%	25%	
Exam 1	23%	18%	
Exam 2	23%	18%	
Exam 3	24%	34%	

Method 1 rewards students who persistently do well on the exams. However, Method 2 allows students who underperform on the early exams to redeem themselves later. Due to the cumulative nature of the course, the final exam will presume knowledge of the material covered in the early exams, so you should not plan on Method 2 saving you. Finally, the course is graded on a curve, so you can still earn an "A" even if your score is not a 94% (though a 94% would guarantee an "A").

- Attendance: Attendance will be called at the beginning of each class so please be on time. Switching sections is not allowed without permission. <u>Missing up to two classes will not affect your attendance score</u>.
- **Problem sets**: Problem sets will be administered through Blackboard. Students will be given a total of 8 problem sets, each of which covers two consecutive topics. You can find the topics and due dates for each problem set posted on Blackboard. The problem sets are in place to enhance your understanding of the class material. Each problem set will be automatically graded through the Blackboard system and <u>the lowest one score</u> will not count towards your final grade. Due dates will be announced and please note that late problem sets will not be accepted.

**Exams**: All exams will be held during class time in our regular classroom. You will be allowed a scientific calculator on the exams, but not one with more advanced alphanumeric capabilities. A one-page letter-size double-sided cheat sheet is allowed.

Exam Schedule (subject to change)

Exam 1: Monday, February 26 Exam 2: Monday, April 2 Exam 3: Monday, April 30 • **Case studies**: There will be up to two case studies. While the case studies will not factor into your grade, it will be helpful for you to apply what we learned from this course to real-life scenarios. For each case, I will assign questions concerning the case, which will be posted on Blackboard. Depending on the case, I will also upload additional data and exhibits. Solutions will also be posted.

### **Course Outline**

The lectures will consist of three parts. The exams will be administered after each part of the lectures is covered.

Part I: Valuation when the discount rate is given

- 01 Time value of money
- 02 Present value shortcuts
- 03 NPV rule
- 04 Alternatives to NPV
- 05 Enterprise value and DCF overview
- 06 Free cash flow
- 07 Firm valuation using DCF
- 08 Project evaluation

Part II: Theories behind valuation

- 09 Risk and returns
- 10 CAPM
- 11 Capital structure and MM propositions
- 12 Trade-off theory of capital structure

Part III: Valuation with financing effects

- 13 WACC
- 14 De(re)-levering discount rate
- 15 Valuing financing effects (WACC/APV/FCFE)
- 16 Multiples

If time allows: What-if analysis & real options

## **Policies**

• Academic Honesty: The University of Houston Academic Honesty Policy is strictly enforced by the C. T. Bauer College of Business. No violations of this policy will be tolerated in this course. A discussion of the policy is included in the University of Houston Student Handbook here:

http://catalog.uh.edu/content.php?catoid=6&navoid=1025.

- Accommodations for students with disabilities: The C. T. Bauer College of Business would like to help students who have disabilities achieve their highest potential. To this end, in order to achieve academic accommodations, students must register with the Center for Students with Disabilities (CSD) (telephone 713-743-5400), and present approved accommodation documentation to their instructors in a timely manner.
- **Respect and etiquette**: The classroom environment should be conducive to learning at all times. Therefore, it is important to respect other students and the instructor by demonstrating appropriate language, courtesy, and demeanor in class. Further, certain behaviors are considered disruptive to the learning environment and/or constitute disrespect toward other students and faculty. Such behaviors include, but are not limited to:
  - Arriving late or leaving early without prior permission from the instructor
  - The unauthorized use of cell phones during class

