



## National University of Singapore NUS Business School

### ACC3705 – Valuation Course Outline

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#### Overall learning objectives

- To equip students with the key concepts and understanding in the valuation of major asset classes: bonds, other fixed-income instruments, financial derivatives, real estate, equity instruments as well as valuation for M&A.
- To equip students with the key concepts and understanding in using fair value measurements for assets as required by the Singapore Financial Reporting Standards.

#### Pre-requisites

FIN2704.

Please do your own revision if you do not remember well what you have learned in FIN2704. The lectures for ACC3705 will assume that you understand the key concepts taught in FIN2704 and will move at a reasonably fast pace.

#### Course coverage

Broadly, this course will cover the following:

- Valuation requirements of FRS 16, 32, 36, 38, 39, 40, 102, 103, 107 and 113
- Basics in valuations (parameters, models, and applications)
- Various valuation methodologies
- Valuation of different asset classes: bonds, other fixed-income instruments, financial derivatives, real estate, and equity instruments, as well as valuation for M&A

#### Learning outcomes

Upon successful completion of this course, students will be able to:

- Understand the basic economic theory that drives valuation
- Understand the requirements of fair value accounting
- Understand the major valuation methodologies for the various asset classes
- Apply the valuation methods to the requirements of the various Singapore FRSs for accounting purposes.

## Assessment

|   | Allocation % |
|---|--------------|
| a. Class assignments and participation <ul style="list-style-type: none"> <li>• Class participation and discussion – 10%</li> <li>• Individual problem sets -- 10%</li> <li>• One group project -- 20%</li> </ul> | 40           |
| b. Mid-term test  | 30           |
| c. Final test   | 30           |
| <b>Total</b>  | 100          |

## Suggested Readings

1. **Damodaran**, Aswath, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*, University Edition, 3<sup>rd</sup> Edition, John Wiley & Sons, 2012.
2. **Fabozzi**, Frank J., *Bond Markets, Analysis and Strategies*, 9<sup>th</sup> Edition, Pearson Publishing, 2016.
3. **Hull**, John C., *Options, Futures and Other Derivatives*, 10<sup>th</sup> Edition, Pearson Publishing., 2018.

### Class participation and discussion (10%)

Class participation will depend on your contribution to class discussions. You are expected to attend classes every week, participate in class discussions, and ask questions during class. Students who hardly speak in class throughout the semester usually receive a low participation score.

### Practice questions (10%)

Information relating to two individual problem sets will be provided in class and/or on Canvas. Practicing and understanding the problem sets are **essential** in preparing for written exams.

### Group project (20%)

There will be a valuation exercise group project. Students from the same sectional class will be randomly allocated to groups of five or six students. This enables students to apply what they learn, get to know more classmates, and experience teamwork similar to that in a corporate environment where professionals have to collaborate with clients or colleagues they may not know well.

You may or may not get the “dream team” you had hoped for, but your responsibility is to think positively and act proactively. Your instructors expect all team members to help each other and that no one should freeload on other team members’ work. Please do your best to be a good team player.

When evaluating the group project, the instructors will take into consideration how you collaborate or handle tension within your working group. All members of the same working group are expected to receive the same score. However, in exceptional circumstances, the instructors may moderate the scores within a working group if a serious case of freeloading is found.

Information about the group project will be provided in class and/or on Canvas. The group

project requirements are expected to be issued after **Week 4**. You will be given around 4 to 5 weeks, and the due date will be announced in class.

### **Mid-term test (30%)**

There is a mid-term test in addition to a final test. It is your responsibility to be present for the mid-term test. Absence without a valid reason from the mid-term test will be given a score of zero. The excused absence with a make-up test will be given only in **EXCEPTIONAL CIRCUMSTANCES** as allowed by NUS policies. You **must** make arrangements with the instructors in writing prior to the mid-term test as soon as you know you may have difficulty attending the mid-term test.

All materials covered during the semester in **Week 1 to 6** in lectures, presentations, assignments, and assigned readings are examinable. All University-approved calculators are permitted. Any other electronic and mobile devices e.g., laptop, smartphones, and mobile phones are not allowed.

When sitting for the mid-term test, students are allowed to bring in **one (1) SHEET** of A4 size paper with hand-written or typewritten notes on both sides.

### **Final test (30%)**

It is your responsibility to be present for the final test. Absence without a valid reason from this final test will be given a score of zero. The excused absence with a make-up test will be given only in **EXCEPTIONAL CIRCUMSTANCES** as allowed by NUS policies. You **must** make arrangements with the instructors in writing prior to the final test as soon as you know you may have difficulty attending the final test.

All materials covered during the semester from **Week 7 to 13** in lectures, presentations, assignments, and assigned readings are examinable. In setting the final test, it is assumed that you have internalized the knowledge acquired in Week 1 to 6.

All University-approved calculators are permitted. Any other electronic and mobile devices e.g., laptops, smartphones, and mobile phones are not allowed.

When sitting for the final test, students are allowed to bring in **one (1) SHEET** of A4 size paper with hand-written or type-written notes on both sides.

## Detailed syllabus

Note: The schedule provided in the syllabus is **tentative**. Any changes will be announced in class.

| Week               | Topic  | Optional Reaching Materials                          | Level of Difficulty | Assignments            |
|--------------------|--|--|---------------------|------------------------|
| Week 1             | <b>Introduction to fair value accounting and overview of valuation</b> <ul style="list-style-type: none"> <li>Purposes of valuation</li> <li>Requirements of FRS 39 and 113</li> <li>Fundamentals of valuation</li> </ul>                | Damodaran Chapters 1-3;<br>FRS 39 and 113            | *                   |                        |
| Week 2             | <b>Equity valuation 1</b> <ul style="list-style-type: none"> <li>Basic valuation parameters and models for equity</li> <li>Quantifying the parameters: discount rates, time horizon, terminal value, growth, cash flows, etc.</li> </ul> | Damodaran Chapters 1-4                               | **                  |                        |
| Week 3             | <b>Equity valuation 2</b> <ul style="list-style-type: none"> <li>Cost of equity</li> </ul>   | Damodaran Chapters 6-8                               | ****                |                        |
| Week 4             | <b>Equity valuation 3</b> <ul style="list-style-type: none"> <li>Cost of debt</li> </ul>   | Damodaran Chapters 7, 10-16                          | ****                |                        |
| Week 5             | <b>Equity valuation 4</b> <ul style="list-style-type: none"> <li>Cost of debt</li> <li>Valuation models</li> </ul>   | Damodaran Chapters 7, 10-16                          | ****                |                        |
| Week 6             | <b>Equity valuation 5</b> <ul style="list-style-type: none"> <li>Valuation models</li> <li>Growth rates</li> <li>Review</li> </ul>   | Damodaran Chapters 10-16                             | ****                |                        |
| <b>Recess week</b> |  |  |                     | <b>Problem Set One</b> |
| Week 7             | <b>Mid-term</b>  |  |                     |                        |
| Week 8             | <b>Equity valuation 6</b> <ul style="list-style-type: none"> <li>Relative valuation</li> <li>Building a DCF model</li> </ul>   | Damodaran Chapters 17-20;<br>Additional materials    | ***                 |                        |
| Week 9             | <b>Equity valuation 7</b> <ul style="list-style-type: none"> <li>Challenges in valuation</li> <li>M&amp;As</li> <li>Real estate valuation</li> </ul><br><b>Review and Recap</b>  | Damodaran Chapters 21-26;<br>FRS 36, FRS 38, FRS 103 | ***                 |                        |

|                        |   |   |       |                        |
|------------------------|---|---|-------|------------------------|
| Week 10                | <b>Bonds and other fixed-income instruments 1</b> | Fabozzi Chapters 2, 3; FRS 32                 | ***   |                        |
| Week 11                | <b>Bonds and other fixed-income instruments 2</b> | Fabozzi Chapters 5, 18; FRS 32                | ***** |                        |
| Week 12                | <b>Financial derivatives 1</b>                    | Hull Chapters 1, 2, 3, 5, 7, 10, 11           | ***** |                        |
| Week 13                | <b>Financial derivatives 2</b>                    | Hull Chapters 12, 14,15; Additional materials | ***** |                        |
|                        |   |   |       | <b>Problem Set Two</b> |
| <b>Final Test, TBA</b> |   |   |       |                        |