



# National University of Singapore NUS Business School

## ACC3614 – Valuation (Semester 2, 2017/2018) Course Outline

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### Overall learning objectives

- To equip students with the key concepts and understanding in 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

FIN2004.

Please do your own revision if you do not remember well what you have learned in FIN2004. The lectures for ACC3614 will assume that you understand the key concepts taught in FIN2004 and will move at a reasonably fast pace.

### Module coverage

Broadly, this module 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 module, 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.

## Textbooks

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. ACC3614 Custom Book (available from mid-Aug 2017) incorporating the relevant chapters (see page 7 of this document) of the following:
  - a. **Fabozzi, Frank J.**, *Bond Markets, Analysis and Strategies*, 9<sup>th</sup> Edition, Pearson Publishing, 2016.
  - b. **Hull, John C.**, *Options, Futures and Other Derivatives*, 10<sup>th</sup> Edition, Pearson Publishing., 2018.

Please refer to the detailed syllabus for the relevant chapters of the textbooks.

## Instructors

Name	Role	Email	Room	Phone
Assistant Professor Lin Yupeng	Coordinator, lecturer and tutor	<a href="mailto:bizliny@nus.edu.sg">bizliny@nus.edu.sg</a>	BIZ 1, 07-24	6516

Please email the instructors for consultation or make other arrangements if you need their help or advice.

## Classes

There are three classes as follows:

G1	Monday	8.00am to 11.00pm	BIZ2-0413B
G2	Monday	14:00pm to 17:00pm	BIZ1-0206
G3	Wednesday	8.00am to 11.00pm	BIZ2-0509

You are expected to strictly attend the class to which you have been assigned. For the group project, you will be working in small groups with students from the same class.

If due to exigencies you need to attend a class other than your own for any particular week, you need to get advance clearance from the instructor.

Lecture will start at 8.00am or 2.00pm sharp as time is of the essence and your attendance on time will be monitored accordingly.

Please do not miss classes as there will be no video recording of the lectures. You will also receive a poor score for participation if you miss the class more than once.

## Expectations

Lecture notes will be uploaded to IVLE before the start of class each week. Students are advised to read the lecture notes and the chapters of the recommended textbook (refer to

the detailed syllabus below) before class each week. Additional readings assigned would also be uploaded to IVLE before each lecture. No physical handouts will be given in class. Students are expected to download and print the materials if they wish to have a hard copy.

Since you are training to become accounting professionals, ethics and professionalism are extremely important. Please take note of the NUS Code of Conduct. If any student is found violating the code of conduct or cheating in quizzes, exercises, tests or projects, he or she will be dealt with seriously and may end up obtaining zero for the relevant assessment or failing the entire module. **We take compliance with ethical conduct very seriously.**

### Assessment

	Allocation %
a. Class assignments and participation <ul style="list-style-type: none"> <li>• Class participation and discussion – 10%</li> <li>• Two individual exercises(by credit) -- 15%</li> <li>• One group project -- 15%</li> </ul>	40
b. Mid-term test	30
c. Final test	30
<b>Total</b>	100

#### **Class participation and discussion (10%)**

Your participation mark will be dependent on your discussions in class and how your interactions would add value for the class. If you hardly speak up in class throughout the semester, you should expect a low mark for your class participation.

#### **Practice questions (15%)**

Information relating to two individual exercises with practice questions will be provided in class and/or on IVLE.

#### **Group project (15%)**

The instructors will assign you to small working groups for the purposes of group projects in line with the thinking explained below.

In your future professional career, you will often find yourself working as a team with people you do not know or do not know well. This is particularly so if you work in a large auditing or advisory practice where you are usually assigned centrally to various engagements. Also, in most executive development programmes, the participants are deliberately assigned to different groups for different projects so as to allow them maximum networking opportunities. You should use this opportunity to get to know more fellow students.

You may or may not get the “dream team” that you had hoped for but it is your responsibility to think and act positively to make the team work effectively. Your instructors expect all team members to help each other to ensure no member is left behind.

Please do your best to contribute as a good team player and not be detested by your team members as a freeloader.

In awarding marks, the instructors will take into consideration how you collaborate or handle tension within your working group. All members of the same working group will get the same mark. In exceptional circumstances, the instructors may moderate the marks to deal seriously with the freeloader.

Information about the group project will be provided in class and/or on IVLE. The requirements of the group project are expected to be issued in **Week 7** and the report is due for submission at the end of **Week 12**.

### **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. 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 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. 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 12 in lectures, presentations, assignments, and assigned readings are examinable. In setting the final test, it is assumed that you have internalised the knowledge acquired in Week 1 to 6.

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

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

### Detailed syllabus

Week beginning (2018)	Topic	Text book and additional materials	Level of Difficulty
Week 1 15 Jan	<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 FRS 39 and 113	*
Week 2 22 Jan	<b>Bonds and other fixed income instruments 1</b> <ul style="list-style-type: none"> <li>• Zero and Spots</li> <li>• Coupons</li> <li>• Seasoned Bond 1</li> </ul>	Fabozzi Chapters 2, 3, and 5 FRS 32	***
Week 3 29 Jan	<b>Bonds and other fixed income instruments 2</b> <ul style="list-style-type: none"> <li>• Seasoned Bond 2</li> <li>• Floating Rate Notes 1</li> <li>• Floating Rate Notes 2</li> </ul>	Fabozzi Chapters 18 and 20 FRS 32	*****
Week 4 5 Feb	<b>Financial derivatives 1</b> <ul style="list-style-type: none"> <li>• Types of financial derivatives</li> <li>• Valuation of Forward Rate Agreement (FRA)</li> </ul>	Hull Chapters 1, 4 and 7	*****
Week 5 12 Feb	<b>Financial derivatives 2</b> <ul style="list-style-type: none"> <li>• Valuation of swaps</li> <li>• Basic option features</li> <li>• Valuation of stock options</li> </ul>	Hull Chapters 10, 11, 13, 15, 16, 21	*****
Week 6 19 Feb	<b>Financial derivatives 3</b> <ul style="list-style-type: none"> <li>• Black-Scholes option pricing model</li> <li>• Cox, Ross and Rubinstein binomial model</li> </ul>	Hull Chapters 10, 11, 13, 15, 16, 21	*****
Recess week, 26 Feb to 4 Mar 2018			
<b>Mid-term test</b> <b>Mon, 5 Mar 2018, 6.00 – 8.30pm</b> <b>Venue to be announced in IVLE</b>			
Week 7 5 Mar	<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 4, 6-8	**
Week 8 12 Mar	<b>Equity valuation 2</b> <ul style="list-style-type: none"> <li>• Cost of equity</li> </ul>	Damodaran Chapters	****

Week 9 19 Mar	<b>Equity valuation 3</b> <ul style="list-style-type: none"> <li>• Cost of debt</li> <li>• Advanced valuation models 1</li> </ul>	Damodaran Chapters	****
Week 10 26 Mar	<b>Equity valuation 4</b> <ul style="list-style-type: none"> <li>• Advanced valuation models 2</li> <li>• Relative valuation</li> </ul>	Damodaran Chapters	****
Week 11 2 April	<b>Valuation challenges</b> <ul style="list-style-type: none"> <li>• Negative or abnormal earnings</li> <li>• Young or start-up firms</li> <li>• Private firms</li> </ul>	Damodaran Chapters 22-24	****
Week 12 9 April	<b>M&amp;A and Real estate Valuation</b> <ul style="list-style-type: none"> <li>• Rationale for M&amp;A (corporate governance)</li> <li>• Synergies in M&amp;A</li> <li>• Valuation of target</li> <li>• Conglomerates in Asia</li> <li>• Market approach</li> <li>• Cost approach</li> <li>• Hedonic valuation</li> </ul>	Damodaran Chapters 25 26	**
Week 13 16 April	<b>Overview and revision</b>		
<b>Final test</b> <b>Fri, 20 April 2018, 6.00 to 8.30 pm</b> <b>Venue to be announced in IVLE</b>			

# ACC3614 Valuation of Fixed Income Instruments and Financial Derivatives

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\*The numbers refer to the page numbers of the custom book



## **CODE OF CONDUCT (ABSTRACT)**

**You are being trained as an accountant and it is imperative that you acquire good ethical and professional values. NUS expects students to behave in a most honorable manner. Actions will be taken for any violation of ethical or professional conduct and this includes the award of a fail grade or zero for any assignment, test or even the whole module.**

### **NUS Code of Student Conduct**

As a widely respected institution of higher learning, the National University of Singapore (NUS) is dedicated to cultivating academic and personal excellence in a way that is inclusive and supportive, where communal values as well as the dignity and rights of each person are respected.

NUS students are expected to maintain and uphold the highest standards of integrity and honesty at all times, as well as embrace community standards, diversity and mutual respect for one another, both within the University and the wider Singapore community.

This Code of Student Conduct is intended to guide students' conduct in both the academic and non-academic aspects of their University life by providing an overview of the behaviour generally expected of them as members of the University community. It is meant to serve as a broad framework, and should not be treated as an exhaustive list.

In line with the above, the University expects students to uphold both the spirit and letter of this Code of Student Conduct at all times.

### **Academic, Professional, and Personal Integrity**

The University is committed to nurturing an environment conducive for the exchange of ideas, advancement of knowledge and intellectual development. Academic honesty and integrity are essential conditions for the pursuit and acquisition of knowledge, and the University expects each student to maintain and uphold the highest standards of integrity and academic honesty at all times.

The University takes a strict view of cheating in any form, deceptive fabrication, plagiarism and violation of intellectual property and copyright laws. Any student who is found to have engaged in such misconduct will be subject to disciplinary action by the University.

It is important to note that all students share the responsibility of protecting the academic standards and reputation of the University. This responsibility can extend beyond each student's own conduct, and can include reporting incidents of suspected academic dishonesty through the appropriate channels. Students who have reasonable grounds to suspect academic dishonesty should raise their concerns directly to the relevant Head of Department, Dean of Faculty, Registrar, Vice Provost or Provost.