

## Annexe A: New/Revised Course Content in OBTL+ Format

### Course Overview

The sections shown on this interface are based on the templates [UG OBTL+](#) or [PG OBTL+](#)

If you are revising/duplicating an existing course and do not see the pre-filled contents you expect in the subsequent sections e.g. Course Aims, Intended Learning Outcomes etc. please refer to [Data Transformation Status](#) for more information.

Expected Implementation in Academic Year	
Semester/Trimester/Others (specify approx. Start/End date)	
Course Author * Faculty proposing/revising the course	Loh Yu Sheng
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Course Title	FIXED INCOME SECURITIES
Course Code	BF3202
Academic Units	0
Contact Hours	4
Research Experience Components	

## Course Requisites (if applicable)

Pre-requisites	BF2201; and AB1201 (for business majors) or BU8201 B+ (for non-business majors)
Co-requisites	
Pre-requisite to	
Mutually exclusive to	
Replacement course to	
Remarks (if any)	

## Course Aims

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

1. Price a wide range of fixed income securities
2. Understand the structure of different fixed income securities
3. Learn how to manage the risks of fixed income securities

This class is targeted at finance majors and students in closely related disciplines who are interested in learning about fixed income securities and pursuing a career in fields such as asset management, wealth management, insurance, and banking.

## Course's Intended Learning Outcomes (ILOs)

Upon the successful completion of this course, you (student) would be able to:

ILO 1	Describe the structures of different fixed income securities and explain the reasons for the different structures
ILO 2	Price a wide variety of fixed income securities using no-arbitrage principles
ILO 3	Analyze the risks of various fixed income securities and apply risk management techniques
ILO 4	Evaluate specific situations in the fixed income market and recommend a course of action

## Course Content

This course covers bond pricing and yields; duration and convexity; convertible bonds; callable bonds; asset-liability matching; term structure, spot rates, and forward rates; credit risk; pricing interest rate derivatives; swaps and credit default swaps; mortgage and asset backed securities

## Reading and References (if applicable)

“Bond Markets, Analysis, and Strategies” by Frank J. Fabozzi; Eighth Edition, Pearson Other Resources: Fixed Income Securities: Tools for Today’s Markets Bruce Tuckman & Angel Serrat Third Edition, Wiley Finance

## Planned Schedule

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
1	Introduction to fixed income securities Introduction to fixed income securities	1	Ch. 1, 6, 7, 9		
2	Pricing and yields; Repurchase agreements	2	Ch. 2, 3		
3	Duration and convexity	3	Ch. 4		
4	The term structure, spot rates and forward rates	2, 3	Ch. 5		
5	Bond portfolio management and asset-liability matching	3, 4	Ch. 22, 24		
6	Credit risk	2, 3, 4	Ch. 20, 21		
7	Valuing bonds with embedded options	1, 2, 3	Ch. 17		
8	Recess Week				
9	Interest rate derivatives	1, 2, 3	Ch. 26, 27		
10	Swaps and credit default swaps	2, 3, 4	Ch. 28, 29		
11	Convertible bonds	1, 2	Ch. 19		

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
12	Mortgage backed securities	1, 2, 3	Ch. 11, 12		
13	Mortgage backed securities and asset backed securities	1, 2, 3, 4	Ch. 15		

## Learning and Teaching Approach

Approach	How does this approach support you in achieving the learning outcomes?
Seminars	In the first part of the interactive seminars, concepts and methods are presented to provide students with a structure for analyzing problems. You are encouraged to actively participate in the class discussions. In the second part of the seminars, we will work through and discuss problems together. This will ensure you are able to apply the methodologies necessary for working with fixed income securities.
Individual assignments	The assignment requires you to apply what you have learnt in classes to solve the problems involving fixed income securities.
Group project	The group project requires you to not only apply technical skills, but also exercise judgement in applying and interpreting quantitative results. It also assesses your public speaking ability and provides a training ground to hon your presentation skills.

# Assessment Structure

Assessment Components (includes both continuous and summative assessment)

No.	Component	ILO	Related PLO or Accreditation	Weightage	Team/Individual	Rubrics	Level of Understanding
1	Summative Assessment (EXAM): Final exam(Final Examination)	1,2,3,4	Acquisition of knowledge, problem solving and decision making, and critical	50	Individual		
2	Continuous Assessment (CA): Assignment(Assignment)	1,2,3	Acquisition of knowledge	20	Individual		
3	Continuous Assessment (CA): Project(Group project (Written report and class presentation))	1,2,3,4	Problem Solving and Decision Making, Critical thinking	20	Team		
4	Continuous Assessment (CA): Class Participation(Class Participation)	1,2,3	Acquisition of knowledge	10	Individual		

## Description of Assessment Components (if applicable)

\* At the end of the semester, you will be asked to complete a teammate assessment form evaluating your teammates' contributions. If your teammates' assessment of your contribution is below a threshold your grade will be reduced. Refer to Appendix 3 for assessment method.

## Formative Feedback

- 1.You will receive feedback on the individual assignment after it is graded. I will also go through the assignment questions during class time.
- 2.You will be provided with graded rubrics and written comments for your group project presentation.
- 3.You will also receive verbal feedback on the questions in the problem sets that we work through in classes.

# NTU Graduate Attributes/Competency Mapping

This course intends to develop the following graduate attributes and competencies (maximum 5 most relevant)

Attributes/Competency	Level
Collaboration	Intermediate
Communication	Basic
Problem Solving	Intermediate

## Course Policy

Policy (Academic Integrity)

Policy (General)

You are expected to complete all assigned pre-class readings and activities, attend all seminar classes punctually and take all scheduled assignments and tests by due dates. You are expected to take responsibility to follow up with course notes, assignments and course related announcements for seminar sessions they have missed. You are expected to participate in all seminar discussions and activities.

Policy (Absenteeism)

Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies.

Policy (Others, if applicable)

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