

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	AY2024-2025
Semester/Trimester/Others (specify approx. Start/End date)	Semester 1
Course Author * Faculty proposing/revising the course	Loh Yu Sheng
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Course Title	Fixed Income Securities
Course Code	BF3216
Academic Units	3
Contact Hours	39
Research Experience Components	

Course Requisites (if applicable)

Pre-requisites	AB1201 & BF2219 or RE8005 & BF2219
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

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	ILO1	Ch. 1, 6, 7, 9	In-person	
2	Pricing and yields; Repurchase agreements	ILO2	Ch. 2, 3	In-person	
3	Duration and convexity	ILO3	Ch. 4	In-person	
4	The term structure, spot rates and forward rates	ILO2 , ILO3	Ch. 5	In-person	
5	Bond portfolio management and asset-liability matching	ILO3 , ILO4	Ch. 22, 24	In-person	
6	Credit risk	ILO2 , ILO3 , ILO4	Ch. 20, 21	In-person	
7	Valuing bonds with embedded options	ILO1 , ILO2 , ILO3	Ch. 17	In-person	
8	Recess Week				
9	Interest rate derivatives	ILO1 , ILO2 , ILO3	Ch.26, 27	In-person	

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
10	Swaps and credit default swaps	ILO2 , ILO3 , ILO4	Ch. 28, 29	In-person	
11	Convertible bonds	ILO1 , ILO2	Ch. 19	In-person	
12	Mortgage backed securities	ILO1 , ILO2 , ILO3	Ch. 11, 12	In-person	
13	Mortgage backed securities and asset backed securities	ILO1 , ILO2 , ILO3 , ILO4	Ch. 15	In-person	

Learning and Teaching Approach

Approach	How does this approach support you in achieving the learning outcomes?
Seminars	<p>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.</p> <p>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.</p>
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 hone 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)	ILO1, ILO2, ILO3, ILO4	Acquisition of knowledge, problem solving and decision making, and critical	50	Individual		
2	Continuous Assessment (CA): Assignment(Assignment)	ILO1, ILO2, ILO3	Problem Solving and Decision Making	20	Individual		
3	Continuous Assessment (CA): Project(Group project (Written report and class presentation) (Note: all students will be required to present the class presentation))	ILO1, ILO2, ILO3, ILO4	Problem solving and decision making; Creative Thinking; Oral Communication; Written Communication; Teamwork and Interpersonal Skills	20	Team		
4	Continuous Assessment (CA): Class Participation(Class Participation)	ILO1, ILO2, ILO3	Oral Communication	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

You will receive feedback on the individual assignment after it is graded. I will also go through the assignment questions during class time.

You will be provided with graded rubrics and written comments for your group project presentation.

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)

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values. As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. On the use of technological tools (such as Generative AI tools), different courses / assignments have different intended learning outcomes. Students should refer to the specific assignment instructions on their use and requirements and/or consult your instructors on how you can use these tools to help your learning. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

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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