

School of Administrative Studies
Faculty of Liberal Arts and Professional Studies

Fixed Income Securities and Risk Management

Course Number: **AP/ADMS 4504 Sections A and B**
Term: **Fall 2022**

Course Outline

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Class Hours: Section A, Mondays, 7 pm – 10 pm, in HNE B17
Section B, Mondays, 4 pm – 7 pm, in HNE B17

Office Hours: Wednesdays, 1 pm – 3 pm, in my office AK235A

Course Description

This course introduces you to fixed income securities and markets. Topics covered include debt securities, risks of investing in bonds, the pricing of fixed income securities, the measurement of interest rate risk, the term structure and volatility of interest rates, mortgage-backed and asset-backed securities, the valuation of mortgage-backed and asset-backed securities, credit analysis, and interest rate derivatives etc. A notable feature of this course is that it is based on the Chartered Financial Analyst (CFA) curriculum, thus preparing you for writing the fixed income parts of both the Level I and Level II of the CFA exams. **However, please note that this course is *not* a CFA prep course.** This course is both rich in content and fast in pace. So, significant out of class work is required for each of you.

Prerequisite

AP/ADMS 3531 (Personal Investment Management) is the prerequisite. **You are also highly recommended to take AP/ADMS 4503 (Derivative Securities) and AP/ADMS 4509 (Financial Risk Management) at your convenient time. But AP/ADMS 4503 is no longer a co-requisite for this course.**

Student Evaluation

Assignments 1 and 2	10% each for a total of 20%
Midterm Exam	30%
Final Exam	50%

Textbook

[Fixed Income Analysis](#), **fourth edition**, James F. Adams and Donald J. Smith (edited), John Wiley & Sons, Inc., 2019, ISBN: 978-1-119-62728-9 (Hardcover), 978-1-119-64686-0 (ePDF), and 978-1-119-62813-2 (ePub).

Supplementary Readings

1. [Bond Markets, Analysis, and Strategies](#), seventh, eighth, ninth, or tenth edition, Frank J. Fabozzi, Pearson Education Inc., 2010 for the seventh edition, 2013 for the eighth edition, 2016 for the ninth edition, or 2021 for the tenth edition.
2. [Fixed Income Securities: Tools for Today's Markets](#), second edition, Bruce Tuckman, John Wiley & Sons, Inc., 2002.

Please note: A number of references will also be posted on the course website throughout the semester. You are required to read these references since they will be tested.

Method of Instruction

Your active participation is encouraged. You are required to think, to analyze, to evaluate, and to apply problem-solving techniques. You are also expected to complete the assigned reading before each class.

Assignments

There are two assignments. Assignments will be posted on the course website *at least* three weeks in advance of the due date. Assignments involve problem-solving and short answers and must be submitted *individually* in *hard copies*.

Assignments are due at the start of the class on the assigned date. Late assignments will **NOT** be accepted. If your assignment is late, you will receive a mark of **zero (0)**. Under **no** circumstances will faxed or photocopied assignments be accepted. **Neither** can an assignment be submitted by e-mail.

Midterm and Final Exams

Midterm and final exams are both **Open Book**. There is *no* make-up midterm exam. Midterm exam is on **Friday, October 28th, 7 pm – 9 pm**, which will cover the topics in the **first five weeks**. The final exam is **cumulative** and might test every topic in the course. The midterm and final exams have **both quantitative and qualitative** questions. You will need to use **Excel** to solve some exam questions.

If you miss the midterm exam for a legitimate reason, your final exam performance relative to other students in the class will be used to estimate your midterm exam mark. The estimation and any further adjustment will be entirely at the discretion of the Course

Director/Area Coordinator and are *not* subject to any appeal. All students who need a passing grade for the course must write the final exam.

Note: It is the policy of the School of Administrative Studies Finance Area that **instructors will not sign a DSA form if a student misses both the midterm and final exams**. Students in this situation will need to petition for a remedy appropriate to their circumstances.

Formula Sheets

Because the midterm and final exams are open book, formula sheets will *not* be provided at the exams. You may use the sample formula sheets posted on eClass as a reference.

Financial Calculator

A financial calculator is required. If you will pursue the CFA designation in the future, note that *only* two types of calculator are currently allowed for the CFA exams: the Texas Instruments BAII Plus (BAII Plus) and the Hewlett-Packard 12C (HP-12C).

Academic Honesty and Integrity

In this course, we strive to maintain academic integrity to the highest extent possible. All instances of academic dishonesty in this course will be reported to the appropriate university authorities, and can be punishable according to the Senate Policy on Academic Honesty:

<https://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

Relevant University /LA&PS/ School Regulations

The regulations on many aspects of coursework that apply to you are on this site:
<http://sas.laps.yorku.ca/students/>

You are responsible for understanding and following these regulations.

Deferred Standing – Missed Final Exam

Deferred standing may be granted to students who are unable to write their final examination at the scheduled time. In order to apply for deferred standing in an AP/ADMS class, students must register at:

<http://sas-app.laps.yorku.ca>

The DSA and supporting documentation must be submitted *no* later than five (5) business days from the date of the exam. These requests will be considered on their merit and decisions will be made available by logging into the same link as above. *No*

individualized communication will be sent from the School to the students (*no* letter or e-mails).

Tentative Course Schedule

The topic order will be as stated below. Depending on time constraint, some topics may be subject to minor changes.

Week	Date	Topic and Textbook Material
1	September 12 th	Features of Debt Securities, and Risks in Bond Investments Chapter 1
2	September 19 th	Overview of Bond Sectors, and Understanding Yield Spreads Chapter 2 and Section 7.4
3	September 26 th	Introduction to the Fixed Income Valuation, and Duration and Convexity Chapters 3 and 5 Assignment 1 is posted
4	October 3 rd	Yield Measures, Spot Rates, and Forward Rates Section 7.2
5	October 17 th	Term Structure and Volatility of Interest Rates PowerPoint slides and lecture notes
	Midterm Exam is on Friday, October 28th, 7 pm – 9 pm, room TBA	Midterm Exam covers Weeks 1 - 5
6	October 24 th	Binomial Model and Convertible Bonds Sections 8.1 – 8.3 and Sections 9.3.5 – 9.6

			Assignment 1 is due
7	October 31 st		Mortgage-Backed Securities Sections 4.4 – 4.6
8	November 7 th		Asset-Backed Securities Sections 4.2 – 4.3, Sections 4.7 – 4.8, and Chapter 11
9	November 14 th		Monte Carlo Simulation Model Section 8.4 Assignment 2 is posted
10	November 21 st		General Principles (or Fundamentals) of Credit Analysis Chapter 6
11	November 28 th		Credit Analysis Models Chapter 10
12	December 5 th		Modelling the Term Structure of Interest Rates, and Interest Rate Derivatives Sections 7.5 – 7.6 Assignment 2 is due