

School of Administrative Studies
Faculty of Liberal Arts and Professional Studies

Fixed Income Securities and Risk Management

Course Number: **AP/ADMS 4504 A & B**
Term: **Fall 2019**

Course Outline

Instructor: Professor Nabil Tahani

Class Hours and Rooms: Section A, Mondays, 7 – 10 pm, in LSB 107
Section B, Mondays, 4 – 7 pm, in LSB 107

Office: Atkinson 203A

Office Hours: Mondays, 1:30 pm – 3:30 pm

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Website: <http://www.yorku.ca/ntahani/ADMS4504/>

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. This course is both rich in content and fast in pace. Therefore, significant out of class work is required for each of you.

Prerequisites

AP/ADMS 3530 (Finance) and AP/ADMS 3531 (Personal Investment Management) are prerequisites. AP/ADMS 4503 (Derivative Securities) is no longer a co-requisite for this course. But it is highly recommended that you take AP/ADMS 4503 concurrently with or before this course.

Student Evaluation

Group Assignments (2)	15%
Midterm Exam	35%
Final Exam	50%

Textbooks

Fixed Income Analysis, second edition, Frank J. Fabozzi (edited), John Wiley & Sons, Inc., 2007, ISBN: 978-0470052211 (hereafter, **2nd**), **used book**.

OR

Fixed Income Analysis, third edition, Barbara S. Petitt, Jerald E. Pinto, and Wendy L. Pirie (edited), John Wiley & Sons, Inc., 2015, ISBN: 978-1118999493 (hereafter, **3rd**).

Supplementary Readings

1. *Bond Markets, Analysis, and Strategies*, seventh, eighth, or ninth edition, Frank J. Fabozzi, Pearson Education Inc., 2010 for the seventh edition, 2013 for the eighth edition, or 2016 for the ninth 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 may be tested in the exams.

Method of Instruction

A combination of lectures, discussions and problem solving will be used. PowerPoint slides used in the lectures are available from a link on the course website. Throughout the course, your active participation is encouraged. You are required to think, to analyze, to evaluate, and to apply problem-solving techniques.

Assignments

There are two assignments. They must be submitted in **groups of 3-4 students each**. **The groups are to be formed by the 3rd class and can't be changed**. 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.

Midterm and Final Exams

Both midterm and final exams are **closed book** and involve **problem-solving and short answers**. If you **miss a midterm exam** for a legitimate reason, you must write a **cumulative final exam**. There is **NO make-up midterm** exam.

Students with a **conflict due to religious reasons** will be accommodated. Please inform the Course Director in writing by the **fourth class** if you have such a conflict. All students who need a passing grade for the course must take the final exam.

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).

Formula Sheets

The formula sheets that you will need for both the midterm and final exams will be posted on the course website at least one week prior to the exams. Do **not** bring the formula sheets to the exams with you. You will be provided with copies of the formula sheets at the exams.

Tentative Course Schedule

The topic order will be as stated below. However, if we cannot finish the material listed in a week, the remainder will be carried forward to the following week. Depending on time constraint some topics may be subject to minor changes.

Week	Date	Topics and Chapters Readings
1	Sept 9	Features of Debt Securities and Risks in Bond Investments 2 nd Chapters 1 and 2; or 3 rd Chapter 1
2	Sept 16	Overview of Bond Sectors, and Understanding Yield Spreads 2 nd Chapters 3 and 4; or 3 rd Chapter 2
3	Sept 23	Introduction to the Fixed Income Valuation, and Duration and Convexity 2 nd Chapters 5 and 7; or 3 rd Chapters 3 and 4
4	Sept 30	Yield Measures, Spot Rates, and Forward Rates 2 nd Chapter 6; or 3 rd Chapter 10 Assignment 1 posted on Sept 30
5	Oct 7	Term Structure and Volatility of Interest Rates 2 nd Chapter 8; or 3 rd Chapter 10
Midterm Exam Sunday, Oct 20 Time, Room: TBA		The midterm exam will test topics taught in weeks 1-5 Assignment 1 due on Oct 20
6 & 7	Oct 21, 28	Binomial Model and Convertible Bonds 2 nd Chapter 9; or 3 rd Sections 8.1 – 8.3 and Sections 9.3.5 – 9.6

8	Nov 4	Asset-Backed Securities: MBS, CMO, ABS and CDO 2 nd Chapters 10 and 11; or 3 rd Chapter 7
9 & 10	Nov 11, 18	Monte Carlo Simulation Model: Valuing MBS and ABS 2 nd Chapter 12; or 3 rd Section 8.4 Assignment 2 posted on Nov 11
10 & 11	Nov 18, 25	Modelling the Term Structure of Interest Rates, and Interest Rate Derivatives 2 nd Chapter 13; or 3 rd Chapter 10
12	Dec 2	General Principles and Models of Credit Analysis 2 nd Chapter 15; or 3 rd Chapters 5 and 6 Assignment 2 due on Dec 2

RELEVANT UNIVERSITY REGULATIONS

Deferred Exams

Deferred standing may be granted to students who are unable to write their final examination at the scheduled time or to submit their outstanding course work on the last day of classes. Details can be found at

<http://myacademicrecord.students.yorku.ca/deferred-standing>

Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

DSA Form: http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf

Attending Physician's Statement form: <http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>

In order to apply for deferred standing, students must register at

<http://apps.eso.yorku.ca/apps/adms/deferredexams.nsf>

Followed by handing in a completed DSA form and supporting documentation directly to the main office of the School of Administrative Studies (282 Atkinson) and add your ticket number to the DSA form. 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 above mentioned link. No individualized communication will be sent by the School to the students (no letter or e-mails).

Students with approved DSA will be able to write their deferred examination during the School's deferred examination period. No further extensions of deferred exams shall be granted. The format and covered content of the deferred examination may be different from that of the originally scheduled examination. The deferred exam may be closed book, cumulative and comprehensive and may include all subjects/topics of the textbook whether they have been covered in class or not. Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

Academic Honesty

The Faculty of Liberal Arts and Professional Studies considers breaches of the Senate Policy on Academic Honesty to be serious matters. The Senate Policy on Academic Honesty is an affirmation and clarification for members of the University of the general obligation to maintain the highest standards of academic honesty. As a clear sense of academic honesty and responsibility is fundamental to good scholarship, the policy recognizes the general responsibility of all faculty members to foster acceptable standards

of academic conduct and of the student to be mindful of and abide by such standards. Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

Students should review the York Academic Honesty policy for themselves at:

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

Students might also wish to review the interactive on-line Tutorial for students on academic integrity, at:

<https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

Grading Scheme and Feedback Policy

The grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) shall be announced, and be available in writing, within the first two weeks of class, and, under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for ‘full year’ courses offered in the Fall/Winter Term be received by students in all courses prior to the final withdrawal date from a course without receiving a grade, with the following exceptions:

Note: Under unusual and/or unforeseeable circumstances which disrupt the academic norm, instructors are expected to provide grading schemes and academic feedback in the spirit of these regulations, as soon as possible. For more information on the Grading Scheme and Feedback Policy, please visit:

<http://www.yorku.ca/univsec/policies/document.php?document=86>

In-Class Tests and Exams - the 20% Rule

For all Undergraduate courses, except those which regularly meet on Friday evening or on a weekend, tests or exams worth more than 20% will not be held in the two weeks prior to the beginning of the official examination period. For further information on the 20% Rule, please visit: <http://secretariat-policies.info.yorku.ca/policies/limits-on-the-worth-of-examinations-in-the-final-classes-of-a-term-policy/>

Reappraisals

Students may, with sufficient academic grounds, request that a final grade in a course be reappraised (which may mean the review of specific pieces of tangible work). Non-academic grounds are not relevant for grade reappraisals; in such cases, students are advised to petition to their home Faculty. Students are normally expected to first contact the course director to discuss the grade received and to request that their tangible work be reviewed. Tangible work may include written, graphic, digitized, modeled, video recording or audio recording formats, but not oral work. Students need to be aware that a request for a grade reappraisal may result in the original grade being raised, lowered or

confirmed. For reappraisal procedures and information, please visit the Office of the Registrar site at: <http://myacademicrecord.students.yorku.ca/grade-reappraisal-policy>

Accommodation Procedures

LA&PS students who have experienced a misfortune or who are too ill to attend the final examination in an ADMS course should not attempt to do so; they must pursue deferred standing. Other students should contact their home Faculty for information. For further information, please visit: <http://ds.info.yorku.ca/academic-support-accomodations/>

Religious Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. For more information on religious accommodation, please visit: <https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>

Academic Accommodation for Students with Disabilities (Senate Policy)

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder. For more information, please visit the Counselling and Disability Services website at <http://www.yorku.ca/dshub/>

York's disabilities offices and the Registrar's Office work in partnership to support alternate exam and test accommodation services for students with disabilities at the Keele campus. For more information on alternate exams and tests please visit <http://www.yorku.ca/altexams/>

Please alert the Course Director as soon as possible should you require special accommodations.