



**BUSI 4511A
Fixed Income Analysis
Winter 2015**

Class Time
Monday 8.35-11.25am

Room
Canal Building 2202

Instructor: Dr. Yuriy Zabolotnyuk, CFA, FRM
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Office Hours: Monday 2.35-3.25pm

Prerequisites

[BUSI 3500](#), [BUSI 3502](#), [BUSI 3512](#) with a grade of C- or higher in each, and [STAT 2607](#)

The School of Business enforces all prerequisites. Only the Undergraduate Program Supervisor of the School can waive prerequisite requirements.

Calendar Description:

Valuation of fixed income securities and interest rate derivatives including bonds, mortgage- and asset-based securities. Analytic tools used in bond portfolio and interest rate risk management including yield curve construction, duration and convexity, and term structure models.

Course Objectives

The goal of the course is to develop a conceptual framework for fixed income valuation and risk management. The course will introduce you to valuation of fixed income securities and interest rate derivatives including bonds, mortgage- and asset-based securities. You will learn analytic tools used in bond portfolio and interest rate risk management including yield curve construction, duration and convexity, and term structure models.

Class Format

The majority of the classes will be comprised of lectures and the completion of sample problems.

Required Text and Materials

Frank J. Fabozzi, “Fixed Income Analysis” 2nd edition, Wiley, 2007.

John Hull, “Options, Futures, and Other Derivatives”, 9th edition., Prentice Hall, 2014

Course Evaluation

	Grade weight
Quizzes (best 3 of 4 @5% each)	15%
Group Projects (2 in total, group of 3 people max), 2@5%	10%
Bloomberg Fixed Income Certification	10%
Midterm Exam (in-class)	25%
Final Exam	40%

There will be group projects (to be posted on the course WebCT site). Projects are due on the date specified, at the beginning of class. **Late submissions will not be accepted** and will receive a grade of zero. Group projects are to be submitted in **printed** format and are to be done in **groups of up to 3 students**.

There will be an in-class midterm test. Once marked, assignments and the test will be returned. The final exam is for evaluation purposes, not instruction. It will not be returned to students.

The date and location of the final exam will be announced through the University’s normal procedures for such matters. Be sure that you are available for the mid-term and final exam. **Allowance will not be made for conflicting travel plans.**

NOTE: Students who do not demonstrate a minimum level of performance during the term will not be allowed to defer the final exam. The requirement for satisfactory in-term performance is an overall mark of 50% or better on the assignments and test. Students with unsatisfactory in-term performance who miss the final exam will be awarded FND for the course.

NOTE: The final exam will be comprehensive, covering material from the entire course. If you are awarded less than 40% on the final exam, you will receive an “F”, regardless of your total mark in the course.

Every effort will be made to mark fairly and accurately. Nonetheless, in some cases, students may call into question the grades awarded to assignments or tests. In such cases, please write a brief note describing the difficulty with the awarded grade and provide the note, together with the graded work, to the instructor not later than seven calendar days following the return of the graded work. Please be sure to include your name and student number on the note to enable the instructor to identify it properly. Note that the resulting remarking may lead to a lower grade.

There may be cases in which a student is permitted by University regulations to miss a graded component of the term work in a course. In such circumstances there will be no make-up assignment or test. The grade weighting corresponding to the missed component will be added to the grade weighting of the final exam.

Course Schedule (tentative and subject to changes)

Date	Topic	Chapter in Fabozzi (Hull)
Jan.5	Introduction to Debt Securities	1-3
Jan.12	Interest Rates and Bond Yields	4 (4)
Jan.19	Quiz 1 Valuation of Debt Securities	5
Jan.26	Term Structure of Interest Rates	6, 8
Feb. 2	Quiz 2 Duration and Convexity	7
Feb 9	Valuation of Bonds with Embedded Options	9
Feb.16	Reading break (no class)	
Feb. 23	MIDTERM (in class)	
Mar.2	Mortgage-Backed Securities	10
Mar.9	Quiz 3 Interest Rate Derivatives	13, 14 (6)
Mar.16	Credit Risk Analysis	15 (24)
Mar.23	Quiz 4 Credit Derivatives	24 (25)
Mar.30	Bond Portfolio Management	16
Apr.6	Exam Review (time permitting)	

Students' Responsibilities

Students are responsible for all readings listed on the course schedule regardless of whether or not specific mention of certain topics is made in class and regardless of whether or not topics are addressed in class. Because of time constraints, it will be impossible to cover all the chapter material in class. Class time will be spent on the most important topics and on the topics where students receive the most benefit from explanation in class.

Required calculator in BUSI course examinations

If you are purchasing a calculator, we recommend any one of the following options: Texas Instruments BA II Plus (including Pro Model), Hewlett Packard HP 12C (including Platinum model), Staples Financial Calculator, Sharp EL-738C & Hewlett Packard HP 10bII

Group work

The Sprott School of Business encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, follower-ship and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Your professor may assign one or more group tasks/assignments/projects in this course. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one.

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100

B+ = 77-79

C+ = 67-69

D+ = 57-59

A = 85-89 B = 73-76 C = 63-66 D = 53-56
A - = 80-84 B - = 70-72 C - = 60-62 D - = 50-52
F = Below 50 WDN = Withdrawn from the course
ABS = Student absent from final exam
DEF = Deferred (See above)
FND = (Failed, no Deferred) = Student could not pass the course even with 100% on final exam

Academic Regulations, Accommodations, Plagiarism, Etc.

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

<http://www.carleton.ca/calendars/ugrad/current/regulations/acadregsuniv.html>

Requests for Academic Accommodations

Academic Accommodations for Students with Disabilities:

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your **Letter of Accommodation** at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (*if applicable*). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (*if applicable*).

- The deadlines for contacting the Paul Menton Centre regarding accommodation for final exams for the April 2015 exam period is March 6, 2015.

For Religious Obligations:

Students requesting academic accommodation on the basis of religious obligation should make a formal, written request to their instructors for alternate dates and/or means of satisfying academic requirements. Such requests should be made during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist, but no later than two weeks before the compulsory event.

Accommodation is to be worked out directly and on an individual basis between the student and the instructor(s) involved. Instructors will make accommodations in a way that avoids academic disadvantage to the student.

Students or instructors who have questions or want to confirm accommodation eligibility of a religious event or practice may refer to the Equity Services website for a list of holy days and Carleton's Academic Accommodation policies, or may contact an Equity Services Advisor in the Equity Services Department for assistance.

For Pregnancy:

Pregnant students requiring academic accommodations are encouraged to contact an Equity Advisor in Equity Services to complete a letter of accommodation. The student must then make an appointment to discuss her needs with the instructor at least two weeks prior to the first academic event in which it is anticipated the accommodation will be required.

Plagiarism

Plagiarism is the passing off of someone else's work as your own and is a serious academic offence. For the details of what constitutes plagiarism, the potential penalties and the procedures refer to the section on Instructional Offences in the Undergraduate Calendar.

What are the Penalties for Plagiarism?

A student found to have plagiarized an assignment may be subject to one of several penalties including: expulsion; suspension from all studies at Carleton; suspension from full-time studies; and/or a reprimand; a refusal of permission to continue or to register in a specific degree program; academic probation; award of an FNS, Fail, or an ABS.

What are the Procedures?

All allegations of plagiarism are reported to the faculty of Dean of FASS and Management. Documentation is prepared by instructors and/or departmental chairs. The Dean writes to the student and the University Ombudsperson about the alleged plagiarism.

The Dean reviews the allegation. If it is not resolved at this level then it is referred to a tribunal appointed by the Senate.

Plagiarism and cheating at the graduate level are viewed as being particularly serious and the sanctions imposed are accordingly severe. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy (See <http://www2.carleton.ca/sasc/advisingcentre/academic-integrity/>). The Policy is strictly enforced and is binding on all students. Plagiarism and cheating – presenting another's ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student – weaken the quality of the graduate degree. Academic dishonesty in any form will not be tolerated. Students who infringe the Policy may be subject to one of several penalties including: expulsion; suspension from all studies at Carleton; suspension from full-time studies; a refusal of permission to continue or to register in a specific degree program; academic probation; or a grade of Failure in the course.

Assistance for Students:

Student Academic Success Centre (SASC): www.carleton.ca/sasc

Writing Tutorial Services: www.carleton.ca/wts

Peer Assisted Study Sessions (PASS): www.carleton.ca/sasc/peer-assisted-study-sessions
