



BUSI 4511A
Fixed Income Analysis
Fall 2017

Class Time
Wednesday 2.35pm-5.25pm

Room
SA317

Instructor: Dr. Yuriy Zabolotnyuk, CFA, FRM
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Office: Dunton Tower 1713
Office Hours: Wednesdays 1:25pm-2:25pm or by appointment

Prerequisites

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

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, ISBN 978-0470052211.

Frank J. Fabozzi, “Fixed Income Analysis Workbook” 2nd edition, Wiley, 2007, ISBN 978-0470069196.

John Hull, “Options, Futures, and Other Derivatives”, 9th edition., Prentice Hall, 2014, ISBN 978-0133456318

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%
Individual presentation	10%
Midterm Exam (in-class)	25%
Final Exam	40%

Quizzes: Quizzes are designed to focus on material that was just covered. They will be approximately 20 minutes in length and will consist of a number of multiple-choice questions.

Group projects: There will be two group projects (to be posted on the course CULearn page). 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**.

Individual presentations: Each student will have to present on a topic selected from a list of suggested topics distributed in class. The presentation should be no longer than 10 minutes.

Midterm exam: There will be an in-class midterm test. Once marked, the midterm will be returned to students.

Final exam: 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 exams. **Allowance will not be made for conflicting travel plans.** The final exam is for evaluation purposes, not instruction. It will not be returned to students.

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)
	Introduction to Debt Securities You are responsible for reading this material on your own. You will be tested on it on Quiz 1.	1-3
Sept.6	Interest Rates and Bond Yields	4 (4)
Sept.13	Quiz 1 Valuation of Debt Securities	5
Sept.20	Term Structure of Interest Rates	6, 8
Sept.27	Quiz 2 Duration and Convexity	7
Oct.4	Valuation of Bonds with Embedded Options	9
Oct.11	Mortgage-Backed Securities	
Oct.18	MIDTERM (in class)	
Oct. 25	Fall break (no class)	10
Nov.1	Interest Rate Derivatives	13, 14 (6)
Nov.8	Quiz 3 Credit Risk Analysis	15 (24)
Nov.15	Credit Derivatives	24 (25)
Nov.22	Quiz 4 Bond Portfolio Management	16
Nov.29	Individual presentations	
Dec.6	Individual presentations	

ADDITIONAL INFORMATION

Course Sharing Websites

Materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

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			

Grades entered by Registrar:

WDN = Withdrawn from the course

DEF = Deferred

Academic Regulations, Accommodations, 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://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>

Requests for 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*). **Requests made within two weeks will be reviewed on a case-by-case basis.** After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website (www.carleton.ca/pmc) for the deadline to request accommodations for the formally-scheduled exam (*if applicable*).

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 and instructors can confirm accommodation eligibility of a religious event or practice by referring to the Equity Services website (<http://carleton.ca/equity/accommodation/religious-observances/>) for a list of holy days and Carleton's Academic Accommodation policies. If there are any questions on the part of the student or instructor, they can be directed to 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.

Academic Integrity

Violations of academic integrity are a serious academic offence. Violations of academic integrity – 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 degree and will not be tolerated. Penalties may include; a grade of Failure on the submitted work and/or course; academic probation; a refusal of permission to continue or to register in a specific degree program; suspension from full-time studies; suspension from all studies at Carleton; expulsion from Carleton, amongst others. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy which is available, along with resources for compliance at: <http://carleton.ca/studentaffairs/academic-integrity>.

Sprott Student Services

The Sprott student services office, located in 710 Dunton Tower, offers academic advising, study skills advising, and overall academic success support. If you are having a difficult time with this course or others, or just need some guidance on how to successfully complete your Sprott degree, please drop in any weekday between 8:30am and 4:30pm. Our advisors are happy to discuss grades, course selection, tutoring,

concentrations, and will ensure that you get connected with the resources you need to succeed! <http://sprott.carleton.ca/students/undergraduate/learning-support/>

Centre for Student Academic Support

The Centre for Student Academic Support (CSAS) is a centralized collection of learning support services designed to help students achieve their goals and improve their learning both inside and outside the classroom. CSAS offers academic assistance with course content, academic writing and skills development. Visit CSAS on the 4th floor of MacOdrum Library or online at: carleton.ca/csas.

Important Information:

- Students must always retain a hard copy of all work that is submitted.
 - All final grades are subject to the Dean's approval.
 - For us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CARLETON address. Therefore, in order to respond to your inquiries, please send all email from your Carleton CMail account. If you do not have or have yet to activate this account, you may wish to do so by visiting <http://carleton.ca/ccs/students/>
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