

FIN7260 (A02) (3.0 CH)
FIXED INCOME SECURITIES
SUMMER 2021

INSTRUCTOR

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Email: ya.gao@umanitoba.ca Office Hours: MW 5:30-6:00 pm, 9:30-10:00 pm
Class Time: May. 3rd – Jun. 2nd, May 30th, 2021 MW 6:15 pm-9:30 pm; SU 8:45-4:15 pm

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 across Level I and Level II (with a touch of Level III) of the CFA exams. This course is both rich in content and fast in pace. Therefore, significant out of class work is required for all students.

COURSE OBJECTIVES

This course provides students with comprehensive knowledge covering major topics in fixed income. Students are expected to understand theories and model applications of fixed income securities and its related topics, including interest rates and term structure, fixed income derivatives, and factors that corporate, as well as investors should consider when making decisions on fixed income securities. On course completion, you should be able to:

- *Understand the defining elements of fixed-income securities and their markets.*
- *Estimate the risk and expected returns for fixed income instruments, with emphasis on interest rate risk and credit risk.*
- *Theory and application of bond evaluation.*
- *Analyze the term structure of interest rates and yield spreads.*
- *Evaluate fixed-income instruments with embedded options and unique features.*
- *Understand interest rate dynamics.*
- *Types, characteristics, and risk of securitization investments.*

AACSB Assurance of Learning Goals and Objectives – Masters of Finance

The Asper School of Business is proudly accredited by AACSB. Accreditation requires a process of continuous improvement for the School and our students. Part of “student improvement” is ensuring that students graduate with the knowledge and skills they need to succeed in their careers. To do so, the Asper School has set the **learning goals and objectives** listed below for the **MFIN Program**. The checked goal(s) and objective(s) will be addressed in this course and done so by means of the items listed next to the checkmark.

	Goals and Objectives in the MFIN Program	Goals and Objectives Addressed in this Course	Course Item(s) Relevant to these Goals and Objectives
1	Proficiency in Asset Valuation: Knowledge and understanding of the principles, theories, and applications of asset valuation.		
	A. Demonstrate knowledge and ability to apply asset valuation models.	√	Lecture
	B. Demonstrate knowledge and ability to apply asset pricing models.	√	Lecture
2	Proficiency in Portfolio Construction and Management: Knowledge and understanding of the principles, theories, and applications of portfolio construction and management.		
	A. Demonstrate knowledge of theories and applications of asset allocation.		
	B. Demonstrate an understanding of the theories and approaches of risk management and its applications.	√	Lecture
	C. Demonstrate an understanding of financial markets, instruments, asset classes, and trading environment.	√	Lecture
	D. Demonstrate an ability to apply behavioural finance models in portfolio construction and management.		
3	Ethical Mindset: Consideration of ethical issues in financial analysis and management.		
	A. Demonstrate an understanding of the role of ethics in financial decision-making.		
	B. Demonstrate a knowledge of the CFA Institute’s <i>Code of Ethics</i> and the <i>Standards of Professional Conduct</i> .		
4	Communication Ability: Ability to communicate effectively and clearly, both verbally and in writing, in a professional context.		
	A. Communicate in a clear and concise manner.		
	B. Communicate in a coherent and logical manner.	√	Lecture

COURSE MATERIALS

1. **Personal computer with internet access and camera.** All lectures will be conducted online via Zoom and exams will be conducted with Respondus Lockdown browser with remote monitoring. Hence, students are expected to have stable internet access to attend lectures (Zoom sessions) and exams. Please note that during lectures and the final exam, students are expected to turn on their camera. The webcam can be the type that's built into your computer or one that plugs in with a USB cable. Watch this brief video to get a basic understanding of LockDown Browser and the webcam feature.

<https://www.respondus.com/products/lockdown-browser/student-movie.shtml>

2. **Textbook:** Fixed Income Analysis, fourth edition, Barbara S. Petitt, Jerald E. Pinto, and Wendy L. Pirie (edited), John Wiley & Sons, Inc., 2019. ISBN 9781119627289
3. **Supplementary Readings:** To better assist your learning experience, the following two supplementary readings are recommended.
 - Fixed Income Securities: Tools for Today’s Markets, 3rd edition, Bruce Tuckman, Angel Serrat, 2011. ISBN-10: 0470891696, ISBN-13: 978-0470891698.
 - The Handbook of Fixed Income Securities, 8th Edition, Frank J. Fabozzi. ISBN-10: 0071768467, ISBN-13: 978-0071768467.
4. **Financial Calculator:** A financial calculator is **required** for this course. 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 BA II Plus or BAII Plus Professional (recommended)
 The course will be instructed with TI BA-II Plus Professional.

COURSE ACCESS

1. All lecture slides, homework assignments, quizzes and final exam will be available through UMLearn website. Progress and updates to course contents will also be posted on UMLearn.
2. To attend lectures, use the following link (please change the displayed name to your real name) at class time:
<https://zoom.us/j/98550628539?pwd=QjhVmFKU2JLb1pQeFFGZjhBZm82QT09>

Passcode is 7260.

COURSE ASSESSMENT

Student progress will be assessed as follows:

Assignments	5 @ 6% each	30%
Quizzes	5 @ 6% each	30%
Final Exam	Cumulative	40%
Total		100%

1. Homework Assignments

There will be **5** assignments throughout this course. Assignments, along with their due dates are available on UMLearn. In case that a due date change, announcement will be made both in class and through UMLearn announcement. Each assignment may involve problem-solving and short answers questions covering topics discussed in class. All assignments must be submitted **individually** in **hand-written, hard copies**. Please make sure that your writing is **legible**. Assignments are due at the start of the class on the assignment due date. Late assignments will **NOT** be accepted. If your assignment is late, you will receive a mark of zero (0) on that assignment. You may submit your assignment early before the due date. In case of emergency and you have to submit a manually completed or hard-copy of your assignment, please contact the instructor prior to the deadline. Assignments are due by 11:59pm on the assignment due date.

2. Quizzes

During this course, there will be one quiz on assigned dates, conducted via UMLearn, testing the content covered last week and in the most recent assignment. There is no cheat sheet allowed during the exam and students are expected to recall formulas from memory during the quiz unless specified otherwise. The quiz will be structured and timed in a similar manner of CFA exam except the online form. Both quizzes and exams will be conducted using the Respondus LockDown browser with Respondus Monitor. Quizzes missed due to internet connection problems could be deferred/re-arranged to another date prior to the next lecture. Please contact the instructor as soon as possible in case of an internet outage.

3. Exams

There will be one cumulative final for this course. The exam will be closed book. Students are permitted to bring in one 8.5 by 11-inch sheet of paper on which they can write anything on both sides. You should begin preparing your "formula" sheet immediately. Formula sheets must be hand written (both sides permitted). NO word-processed or photocopied material is allowed on your formula sheet. You may be required to show your formula sheet throughout the duration of the exam and improper formula sheets will lead to score reduction on your final exam. Offending students will not be allowed to complete the exam without any formula sheet. After the exam, offending students will be referred to the Dean's office on a violation of academic integrity. However, please keep in mind that in a CFA exam, no formula sheet is allowed and you are expected to memorize all formulas and concepts.

If you miss a final examination for medical or compassionate reasons, you may be granted a deferred examination. Travel plans are not an acceptable reason to miss examinations. **University or the Undergraduate/Graduate Office of the student's home faculty/school, as appropriate, can arrange a deferred examination for you.**

The governing documents regarding Final Exams and Final Grades can be found here:
http://umanitoba.ca/admin/governance/governing_documents/academic/1299.html

Final grades will be assigned on your total mark and relative percentile ranking to other students in the class disregard of section difference. Tentative grading scheme is provided as following:

Percentile Ranking (100% being highest)	Grade	GPA	Performance
Of all the students who get 50% or over in total mark in the course:			
95.00%-100.00%	A+	4.5	Excellent
70.00%-94.99%	A	4.0	Very Good
40.00%-69.99%	B+	3.5	Good
10.00%-39.99%	B	3.0	Satisfactory
0%-9.99%	C+	2.5	Marginal
Of all the students who get less than 50% in total mark in the course:			
Total Mark 49.99 and below	F	0.0	Unsatisfactory

NOTE: Class attendance is required. Missing more than 20% of this course due to absences may result in a failing grade. It is your responsibility to inform your professor in advance of your absence and the reason for it (medical documentation or employer note if away for a work commitment) is required. The professor decides how to deal with the impact of missed classes on your final grade.

COURSE SCHEDULE

TENTATIVE COURSE SCHEDULE (5-Week):

You will find that the course progresses quickly and the material covered builds on earlier material. It is important to stay current in your studies. Otherwise you will not understand the new material as it is presented. If you read the text in advance of the relevant classes, you will have a much better chance of keeping pace with the material. It is the **student's responsibility** to read the assigned material **prior** to the relevant class.

Lecture	Topic	Chapter	Dues
5/3/2021	Fixed-Income Securities: Defining Elements Understanding Fixed-Income Risk and Return	Ch. 1 & Ch. 4	
5/5/2021	Overview of Bond Sectors, and Understanding Yield Spreads	Ch. 2 & Ch. 3	
5/10/2020	Introduction to the Fixed Income Valuation	Ch. 3 & Ch. 4	Assignment 1 Quiz 1
5/12/2020	The Term Structure and Interest Rate Dynamics	Ch. 10	
5/17/2020	The Term Structure and Interest Rate Dynamics Valuation and Analysis: Bonds with Embedded Options	Ch. 9 & Ch. 10	Assignment 2 Quiz 2
5/19/2020	Valuation and Analysis: Bonds with Embedded Options	Ch. 9	
5/24/2020	Victoria Day, No Class		
5/26/2020	Fundamentals of Credit Analysis Credit Analysis Models	Ch. 5 & Ch. 6	Assignment 3 Quiz 3
5/30/2020	Credit Analysis Models Arbitrage-Free Valuation Framework	Ch. 6 & Ch. 8	Assignment 4 Quiz 4
5/31/2020	Fixed Income Portfolio Management	Ch. 11, 12, & 13	
5/2/2020	Fixed Income Portfolio Management	Ch. 11, 12, & 13	Assignment 5 Quiz 5
Final Exam: TBD			

Professional Conduct

Students are expected to demonstrate professional conduct for the duration of the course. Some aspects of this include the following: attending each class and arriving on time, restricting discussions in class to the current course material, keeping mobile phones in the "off" or "silent" modes, and not placing or answering calls, text messages, or emails during class time. Unprofessional conduct is

disruptive to the learning environment and makes mastering the course material more difficult for all students.

ACADEMIC REGULATIONS AND STUDENT SERVICES

HUMAN ETHICS APPROVAL FOR DATA COLLECTION

As part of coursework, if you will be collecting data from people who are not students in this class, you must obtain Human Ethics approval from the UofM's Research Ethics Board (REB) prior to data collection. This applies to data collection such as surveys, interviews, focus groups, experiments, video recording, etc., where a respondent is solicited for participation.

If the entire class will be working on the same project, your instructor will apply for human ethics approval from the REB. If individuals or small groups of students will be working on different projects, it is the responsibility of the students to obtain approval (only one group member needs to apply). Your instructor will tell you whether s/he will be or you need to. When in doubt, please talk to your instructor.

Instructions and forms to apply for human ethics approval can be found at:

http://umanitoba.ca/research/orec/ethics/human_ethics_REB_forms_guidelines.html.

In most cases, you will be using the "Protocol Submission Form" which is under the "REB Forms - Fort Garry Campus" heading.

It can take up to six weeks to process human ethics applications and obtain approval. Therefore, plan early. Note that approval must be obtained prior to data collection and cannot be obtained during the data collection phase or retroactively. Violation can get you, your instructor, and the Asper School in serious trouble with the REB.

If you will be collecting data only from other students in the class, you do not need REB approval. If you have any questions, please contact humanethics@umanitoba.ca or your instructor.

UNCLAIMED ASSIGNMENT POLICY

Pursuant to the FIPPA Review Committee's approved recommendations of August 15, 2007, all unclaimed student assignments will become the property of the faculty and will be subject to destruction six months after the completion of any given academic term.

STUDENT SERVICES AND SUPPORTS

The University of Manitoba provides many different services that can enhance learning and provide support for a variety of academic and personal concerns. You are encouraged to visit the below websites to learn more about these services and supports. If you have any questions or concerns, please do not hesitate to contact your instructor or the Graduate Program Office.

For Information on...	...follow this link
Course Outlines, Year-at-a-Glance, Concentrations, Textbooks, VW Dates and Final Exams	MFIN Course Information
Help with research needs such as books, journals, sources of data, how to cite, and writing	Library Resources
Tutors, workshops, and resources to help you improve your learning, writing, time management, and test-taking skills	Writing and Learning Support
Support and advocacy for students with disabilities to help them in their academic work and progress	Student Accessibility Services
Copyright-related questions and resources to help you avoid plagiarism or intellectual property violations	Copyright Office
Student discipline bylaws, policies and procedures on academic integrity and misconduct, appeal procedures	Academic Integrity
Policies & procedures with respect to student discipline or misconduct, including academic integrity violations	Student Discipline
Students' rights & responsibilities, policies & procedures, and support services for academic or discipline concerns	Student Advocacy
Your rights and responsibilities as a student, in both academic and non-academic contexts	Your rights and responsibilities
Full range of medical services for any physical or mental health issues	University Health Service
Information on health topics, including physical/mental health, alcohol/substance use harms, and sexual assault	Health and Wellness
Any aspect of mental health, including anxiety, stress, depression, help with relationships or other life concerns, crisis services, and counselling.	Student Counselling Centre
Support services available for help regarding any aspect of student and campus life, especially safety issues	Student Support Case Management
Resources available on campus, for environmental, mental, physical, socio-cultural, and spiritual well-being	Live Well @ UofM
Help with any concerns of harassment, discrimination, or sexual assault	Respectful Work and Learning Environment
Concerns involving violence or threats, protocols for reporting, and how the university addresses them	Violent or Threatening Behaviour

ACADEMIC INTEGRITY

I.H. Asper School of Business, The University of Manitoba

It is critical to the reputation of the I. H. Asper School of Business and of our degrees that everyone associated with our faculty behaves with the highest academic integrity. As the faculty that helps create business and government leaders, we have a special obligation to ensure that our ethical standards are beyond reproach. Any dishonesty in our academic transactions violates this trust. The University of Manitoba Graduate Calendar addresses the issue of academic dishonesty under the heading "Plagiarism and Cheating." Specifically, acts of academic dishonesty include, but are not limited to:

- using the exact words of a published or unpublished author without quotation marks and without referencing the source of these words
- duplicating a table, graph or diagram, in whole or in part, without referencing the source
- paraphrasing the conceptual framework, research design, interpretation, or any other ideas of another person, whether written or verbal (e.g., personal communications, ideas from a verbal presentation) without referencing the source
- copying the answers of another student in any test, examination, or take-home assignment
- providing answers to another student in any test, examination, or take-home assignment
- taking any unauthorized materials into an examination or term test (crib notes)
- impersonating another student or allowing another person to impersonate oneself for the purpose of submitting academic work or writing any test or examination
- stealing or mutilating library materials
- accessing tests prior to the time and date of the sitting
- changing name or answer(s) on a test after that test has been graded and returned
- submitting the same paper or portions thereof for more than one assignment, without discussions with the instructors involved.

Many courses in the I. H. Asper School of Business require group projects. Students should be aware that group projects are subject to the same rules regarding academic dishonesty. Because of the unique nature of group projects, all group members must exercise extraordinary care to insure that the group project does not violate the policy on Academic Integrity. Should a violation occur on a group project, all group members will be held jointly accountable, no matter what their individual level of involvement in the specific violation.

Some courses, while not requiring group projects, encourage students to work together in groups (or at least do not prohibit it) before submitting individual assignments. Students are encouraged to discuss this issue as it relates to academic integrity with their instructor to avoid violating this policy.

In the I. H. Asper School of Business, all suspected cases of academic dishonesty involving a graduate student (i.e. MBA, MFIN, MSc or PhD student) will be reported directly by the instructor to the Dean of the Faculty of Graduate Studies.

FACULTY BIOGRAPHY

I.H. Asper School of Business, The University of Manitob

Ya Gao

Assistant Professor

Accounting and Finance

I.H. Asper School of Business

Dr. Gao joined Asper School of Business in July 2017. She holds a Ph.D. in Finance from University of Cincinnati. Her researches focus on areas of corporate finance, including regulation, corporate control, and financial institutions. Dr. Gao presented her work at major academic conferences. She has taught Corporate Finance (FIN2200), Financial Management Practices (FIN4400), and Special Topics: Fixed Income (FIN7260).