FINA 5240: Fixed Income Securities - Spring 2026

Class Time: Wednesdays, 2:00-4:50 pm
Classroom: BLB 106 (Trading Room)

Contact Information

Professor: Meredith Rhodes, PhD CFA
Email: meredith.rhodes@unt.edu
Office Hours:
- Wednesdays, 5:00-6:30 pm
- By Appointment

Office: BLB 379G

COURSE OVERVIEW

Course Description:

This course covers fixed-income securities and derivatives, including corporate debt instruments, Treasury securities, residential mortgage-backed securities, interest rate swaps, and credit default swaps. The primary focus is on fixed-income valuation and risk management techniques through the integration of modern information technology (e.g., the Bloomberg Terminal) and analytical tools. The course features a unique partnership with Goldman Sachs, providing students real-world exposure to fixed income markets through industry professional interactions.

Prerequisites:

Fixed-income security analysis is mathematical and rather technical by nature, so students should be comfortable using math, Excel, and working with numbers. Students should have a solid background in basic finance and proficiency in the time value of money.

Course Objectives:

The goals of this course are to describe fixed-income securities and develop tools for security valuation and management of interest rates and credit risk.

- Analyze the factors that shape the yield curve and the term structure of interest rates
- Examine the pricing and risk of fixed-income securities
- Develop information technology skills
- Integrate financial theory with practical tools and real-time data
- Practice analytical and critical problem-solving skills
- Develop professional presentation and communication skills through industry practitioner interactions

Course Materials:

Required:

- Fabozzi, Frank, & Fabozzi, Francesco, 2016, *Bond Markets, Analysis, and Strategies* (10th Edition), ISBN: 9780262367431

Course Format:

Class periods combine lectures, hands-on analytical work, and presentations. Lectures introduce concepts and applications. Assignments reinforce this knowledge through practical application with real-time data using Excel, Python, and Bloomberg Terminal.

The course follows a progressive structure designed to build toward the capstone project. Six assignments develop analytical skills that students will apply when constructing client portfolios. Five of these assignments include group presentations where students articulate and defend their findings, building the communication skills needed to present to industry professionals.

Classes will be held in BLB 106, the Trading Room. BLB 075 is reserved for special events.

Grading Policy:

Assignments (5 @ 9% each)	45%
Class Presentations (5 @ 6% each)	30%
Project	25%
Total	**100%**

Assignments:

Six assignments will be given throughout the semester that build analytical skills progressively, culminating in the tools needed for the capstone project. You may work on these in groups (maximum 3 people). ***You must submit homework individually, but include the names of anyone you worked with on your submission***. Late assignments will not be accepted. The lowest assignment grade will be dropped, so your final assignment grade is the average of your five highest scores.

Assignment	Description
#1: Duration Toolkit	Build a duration analysis workbook using Treasury Securities, developing foundational skills in calculating and interpreting Macaulay duration, modified duration, and convexity.
#2: Total Return Analysis	Calculate holding period returns under multiple interest rate scenarios, incorporating price change, coupon income, and reinvestment to determine how much rates can rise before total returns turn negative.
#3: Credit Spread Analysis	Apply the Merton model to calculate distance-to-default for high yield bond issuers and use cross-sectional regressions to examine how the market prices credit risk across ratings and industries.
#4: Municipal Bond Analysis	Compare municipal and taxable bonds on an after-tax basis, calculating breakeven tax rates across maturities and credit qualities.
#5: Sector Timing Analysis	Build frameworks for sector allocation timing using three approaches: economic indicator analysis, event study analysis, and mean reversion analysis.
#6: Portfolio Construction	Construct a customized portfolio for three clients using a different primary analytical tool from the previous assignments, with explicit justification for why that tool is most relevant to that client's situation.

Assignments require a combination of Excel workbooks, Python notebooks, and written analysis, as specified in each assignment. Five of the six assignments include a 10-minute group presentation with a 5-minute Q&A (Assignment #4: Municipal Bond Analysis does not include a presentation. Presentation requirements are detailed in the Class Presentation section below.

Class Presentations:

Throughout the semester, students deliver five group presentations connected to their assignment work. These presentations serve two purposes. They require students to articulate and defend their analytical findings, and they build the presentation skills needed for the capstone project.

Presentation Schedule:

Presentation	Assignment Connection	Timing
1	Assignment #1: Duration Toolkit	Week 3
2	Assignment #2: Total Return Analysis	Week 4
3	Assignment #3: Credit Spread Analysis	Week 7
4	Assignment #5: Sector Timing Analysis	Week 12
5	Assignment #6: Portfolio Construction	Week 14

Presentation format should be:

- Length: 10-minute presentation, followed by at least 5 minutes of Q&A
- Participation: All team members must speak during both the presentation and Q&A
- Materials: Professional slides expected; Excel charts and visualizations from the assignment embedded directly

Presentations should not merely summarize the assignment. Instead, they should focus on:

1. Key finding: what is the single most important insight from your analysis? Explain it deeply rather than covering everything superficially.
2. Visualization: Show charts or tables that communicate your findings clearly. The visual should be interpretable without extensive explanation.
3. Economic intuition: Explain ***why*** the patterns or results you observe exist, not just that they exist
4. Implications: What does your analysis suggest for portfolio construction or investment decisions?

Evaluation Criteria:

- Visual Clarity (25%) – Charts and tables communicate findings without excessive explanation. Data is presented professionally.
- Analytical Depth (25%) – The presentation demonstrates command of the underlying analysis. Conclusions follow logically from the data.
- Economic Intuition (25%) – The "why" behind observed patterns is explained, connecting empirical findings to economic reasoning.
- Q&A Performance (25%) – All team members demonstrate understanding of the material. The team handles challenging questions professionally, acknowledges limitations honestly, and can discuss alternatives considered.

Presentation Philosophy:
If the analytical work in the assignment is done properly, creating slides should be straightforward. The Excel workbooks/Python notebooks already contain the charts, data, and interpretations. The challenge should be ***selection*** (what's most important to show in 10 minutes?), not ***creation*** (what do we have to present?).

Note: If making slides feels difficult, that's a signal to revisit the assignment work.

Project:

This course features a unique collaboration with Goldman Sachs Asset Management's fixed income team. The final project simulates real-world portfolio management responsibilities, where students will:

- Analyze 10 distinct client profiles with varying investment objectives, constraints, and risk tolerances
- Construct customized fixed-income portfolios using current market data and Bloomberg analytics
- Develop detailed investment rationales for security selection and portfolio construction decisions
- Present and defend portfolio recommendations to Goldman Sachs executives

The project emphasizes both technical expertise and professional communication skills. The six assignments throughout the semester build the analytical toolkit students need for the capstone.

Assignment	**Capstone Application**
#1: Duration Toolkit	Understanding rate sensitivity for liability-matching clients and those with rate views
#2: Total Return Analysis	Scenario analysis and stress testing of portfolio recommendations
#3: Credit Spread Analysis	Evaluating whether spread compensation is adequate for yield-seeking clients
#4: Municipal Bond Analysis	Identifying which clients benefit from tax-advantaged securities
#5: Sector Timing Analysis	Timing sector allocation decisions using indicators, events, and valuation signals
#6: Portfolio Construction	Translating analysis into implementable portfolios with explicit tool-to-client matching

By the capstone presentation, every portfolio recommendation should be traceable to quantitative analysis performed during the semester or built on a method or concept learned during the semester.

Attendance:

Attendance is not required, nor is it included as a component of your grade. However, it is highly encouraged because the material covered is generally considered difficult for the average student and is cumulative in its application.

It is the student's responsibility to request an excused absence in writing, provide satisfactory evidence to substantiate excused absence, and deliver the request personally to me in a timely manner prior to the date in question. If done before a regularly scheduled class time (i.e., a non-exam date), I will try to provide a lecture recording of the missed class; however, there is no guarantee that technology will work as desired. Therefore, I encourage you to reach out to classmates for lecture notes.

For university-excused absences on exam dates, I will provide a reasonable time after the absence for the student to complete a missed exam. For more information on university excused absences, see UNT's policy on Student Attendance and Authorized Absences.

Academic Honesty:

The G. Brint Ryan College of Business takes academic honesty seriously. Ethics and integrity are important business values, essential to building trust and adhering to both professional and legal standards. Academic dishonesty destroys trust, damages the reputation and the value of the degree and is unacceptable.

According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions from admonition (a warning) to expulsion from the University.

Some of the most common examples of academic integrity violations include plagiarism or cheating, such as unauthorized assistance on examinations, homework, research papers or case analyses. Your work must be entirely your own. When working on assignments, you should not discuss your work with others unless approved by the course instructor. Group assignments should only be discussed with members assigned to your group, and all group members may be held accountable in some way for known academic integrity violations in a group assignment.

Another example of academic dishonesty relates to improper attribution. When preparing your assignments, you must cite all outside sources in the manner requested by your instructor. Copying or using material from any source prepared by or previously submitted by others, at UNT or other institutions, or downloaded from the Internet, is plagiarism. Unless directed otherwise in an assignment, large scale “cutting and pasting” from other sources, even if properly footnoted, is not appropriate. You should synthesize this material in your own words and provide a footnote.

Your instructor will specify what materials, if any, may be used on the tests and exams. Using materials other than those permitted, talking with other individuals during the exam, individuals exchanging information about an exam when one has taken the exam and the other has not, or copying or using material from another individual’s exam is academic dishonesty and will result in a meeting to discuss academic integrity violations and potentially issue sanctions mentioned above, and may result in ineligibility for academic scholarships. The use of online assistance, such as sites commonly used for finding homework solutions, group chat, cell phones, smart watches, and similar tools during exams is not allowed for any reason unless specifically permitted. No portion of an exam may be copied or photographed without permission.

Students are expected to conduct themselves in a manner consistent with the University's status as an institution of higher education. A student is responsible for responding to a request to discuss suspected academic dishonesty when issued by an instructor or other University official. If a student fails to respond after a proper attempt at notification has been made, the University may take appropriate academic actions in the absence of the student’s participation.

Guidance on GenAI:

In this course, you are encouraged to use Generative AI (GenAI) tools such as ChatGPT, Gemini, Claude, to support your learning and develop skills for a GenAI-oriented workforce. This use will help us stay technically

proficient and ethically grounded. However, GenAI should complement, not replace, your critical thinking or our course materials. If something seems unclear, please seek clarification.

In line with the UNT Honor Code, all work you submit must be your own. Using GenAI tools without attribution or relying on them to complete assignments violates academic integrity and will be addressed according to university policy.

Acceptable Student Behavior:

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct.

ADA Accommodations:

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation. For additional information, see the ODA website at disability.unt.edu.

Emergency Notification & Procedures:

UNT uses a system called Eagle Alert to notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies). In the event of a university closure, refer to Canvas for contingency plans for course materials.

Severe Weather

In the event of severe weather, all building occupants should immediately seek shelter in the designated shelter-in-place area in the building. If unable to safely move to the designated shelter-in-place area, seek shelter in a windowless interior room or hallway on the lowest floor of the building. All building occupants should take shelter in rooms 055, 070, 090, and the restrooms on the basement level or in rooms 170, 155, and restrooms 122, 182 or 183 on the first floor.

Bomb Threat/Fire

In the event of a bomb threat or fire in the building, all building occupants should immediately evacuate the building using the nearest exit. Once outside, proceed to the designated assembly area. If unable to safely move to the designated assembly area, contact one or more members of your department or unit to let them know you are safe and inform them of your whereabouts. Persons with mobility impairments who are unable to exit the building safely should move to a designated area of refuge and await assistance from emergency responders. All

building occupants should immediately evacuate the building and proceed to the south side of Crumley Hall in the grassy area, west of parking lot 24.

Retention of Student Records:

Student records pertaining to this course are maintained in a secure location by the instructor. All records such as exams, answer sheets (with keys), and paper submitted during the duration of the course are kept for at least one calendar year. Course work completed in Canvas is also stored in a safe electronic environment for one year. Students have the right to view their individual records; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Tentative Schedule

What follows is a tentative schedule and course outline. We may deviate from it considerably, depending on how we progress and class interests. All announcements will be made in class. If you cannot attend a class, check with other students for announcements.

Week	Date	Topic	Readings	Assignment Due	Presentation
1	1/14	Introduction Pricing of Bonds	Chapter 1 Chapter 2		
2	1/21	Bond Price Volatility	Chapter 4		
3	1/28	Measuring Yield	Chapter 3	Assignment #1: Duration Toolkit	✓
4	2/4	Factors Affecting Bond Yields and the Term Structure of Interest Rates	Chapter 6	Assignment #2: Total Return Analysis	✓
5	2/11	Yield Curve Construction Treasury and Federal Agency Securities	Chapter 7		
6	2/18	Corporate Debt	Chapter 8		
7	2/25	Municipal Debt	Chapter 9	Assignment #3: Credit Spread Analysis	✓
8	3/4	Collective Investment Vehicles	Chapter 17	Assignment #4: Municipal Bond Analysis	
9	3/11	**Spring Break**			
10	3/18	Portfolio Management Strategies	Chapter 24		
11	3/25	Portfolio Management Strategies (Cont.)	Chapter 24		
12	4/1	Bond Portfolio Construction	Chapter 25	Assignment #5: Sector Timing	✓
13	4/8	Bond Portfolio Construction (Cont.)	Chapter 25		
14	4/15	Portfolio Construction		Assignment #6: ETF Portfolio Construction	✓
15	4/22	Portfolio Construction (Cont.)			
16	4/29	Portfolio Construction (Cont.)			
17	5/4	**Final Presentations: Monday, May 4th, 12:30pm to 2:30pm**			