

**Finance**  
**Course Number: 29:390:468**  
**Course Title: Fixed Income**

## **COURSE DESCRIPTION**

Course Overview: Students will develop a strong understanding of the fundamentals of Fixed Income, securities, bond types, bond analysis and investing. Topics will include understanding the fundamental drivers of the fixed income and credit markets bond pricing and the understanding of price volatility and risk.

The modern world of investments is varied, complex and interesting. This course will provide students with the necessary background and many of the tools employed in the profession. Students will learn the jargon of the marketplace, useful analytics and how things are done, using a combination of academic and hands-on practical learning.

The course can be broken into four general categories including fixed income foundations, bond types, bond analysis & models, and portfolio management.

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## **COURSE MATERIALS**

**Bond Markets, Analysis & Strategies 9<sup>th</sup> Edition**  
**Frank J. Fabozzi**

**Bloomberg Handouts**

**TV segments & articles**

It will also be important to have or have access to a TI BA II PLUS financial calculator. I may be using this during some class sessions. The calculations that are needed for the course may be done using a scientific calculator, a financial calculator and/or a spreadsheet. Your benefit from the lecture will be enhanced if you are able to follow the calculations in class. A tutorial for the TI BA II PLUS is available at

[http://www.screencast.com/users/Quartic\\_Training/folders/TI%20BA%20II%20PLUS%20calculator%20tutorial/media/e31b353c-26db-459d-9de4-e7ec10d7e5d5](http://www.screencast.com/users/Quartic_Training/folders/TI%20BA%20II%20PLUS%20calculator%20tutorial/media/e31b353c-26db-459d-9de4-e7ec10d7e5d5)

The course does not always revolve around a book. As a supplement to the text we will have interactive discussion (where feasible) regarding the ever changing fixed income landscape globally. They'll be a mixture of technical foundational learnings from the text book (book smart) along with a practical

learnings (real world smart) which I'll refer to as "Keeping It Real". You should expect about 80% of the class to focus on the technical, with 20% concentrating on "Keeping It Real". I'll work to connect the technical learnings to the markets as best I can. In many cases, the concepts and applications will be more important than the math calculations. I encourage students to read the Wall Street Journal, FT, Bloomberg Website etc. Try connecting an event in the marketplace – there is always something – with the topic of the lecture and mentioning it in class. I'll also work to incorporate news articles and TV video clips where feasible.

Check Canvas ([canvas.rutgers.edu](http://canvas.rutgers.edu)) and your official Rutgers email account regularly.

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## LEARNING GOALS AND OBJECTIVES

This course is designed to build a foundation in fixed-income.

The focus of the class will be to combine the understanding of interest rates, credit investing and securitization to real world investing. My goal is that at the end of this class you could have an intelligent conversation with anyone regarding the fixed-income market.

Students who complete this course will demonstrate the following:

- Understanding the process of bond math and valuation.
- Fixed income analysis & models
- The basics of fixed income portfolio management
- How to digest and interpret news and how it affects valuations on both a macro and security level.

**PLEASE REMEMBER THAT YOU ARE ULTIMATELY RESPONSIBLE FOR YOUR OWN SUCCESS.**

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## ACADEMIC INTEGRITY

*I do NOT tolerate cheating.* Students are responsible for understanding the RU Academic Integrity Policy (<http://academicintegrity.rutgers.edu/>)

I will strongly enforce this Policy and pursue *all* violations. On all examinations and assignments, students must sign the RU Honor Pledge, which states, "On my honor, I have neither received nor given any unauthorized assistance on this examination or assignment." I will screen all written assignments through *SafeAssign* or *Turnitin*, plagiarism detection services that compare the work against a large database of past work. Don't let cheating destroy your hard-earned opportunity to learn. See [business.rutgers.edu/ai](http://business.rutgers.edu/ai) for more details.

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## ATTENDANCE AND PREPARATION POLICY

The course agenda is very ambitious. Attendance is critical because, for the most part, each topic builds upon the last. Attendance may be formally taken, so it would be best to not miss a class unless necessary. *Exams are based on the class lectures.*

If your absence is due to religious observance, a Rutgers-approved activity, illness, or family emergency/death and you seek to makeup a test, send an email with full details and supporting documentation.

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## TESTING POLICY

During exams, the following rules apply:

- If you have a disability that influences testing procedures, provide me an official letter from the Office of Disability Services at the start of the semester.
- No cell phones or other electronics are allowed in the testing room, just your calculator,
- You must show a valid Rutgers photo ID to turn in the exam.
- Alternate seating; do not sit next to another student or in your usual seat.
- Use the bathroom prior to the exam start; bathroom breaks, if essential, will be escorted.

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## CLASSROOM CONDUCT

**Class Participation** is strongly encouraged as is, the ability to speak to current financial events. You are responsible to know what goes on in class, which will from time to time include handouts, additional readings, and possible changes to the syllabus. Most course announcements will be made by notices via Canvas, Email will also be sent so... be sure your Canvas email is correct

Put your phones away --- if it rings or you're caught texting I will ask you to leave class. If it's something critical (someone in surgery for example) I will grant you a one-time exemption. Just let me know **BEFORE** class. Your friend picking up after class is **NOT** critical.

We're all adults, disruptive behavior will not be tolerated. We will respect everyone in the class. **I'm here to teach and you are here to learn. There is no class that 70+ students will find perfect.**

## OFFICE HOURS

Please work with the TA first to determine if it's necessary to meet during office hours. If so, then please notify me via chalkboard if you intend to attend. Priority for office hours are those who contact me via chalkboard then first come first serve. I have found many questions can be solved via your TA so please free to try that first.

## EXAM DATES AND POLICIES

Your course grade will be based primarily upon these examinations. There may be homework or a surprise quiz.

- QUIZ 15%
- Midterm 25%
- Written Report 15%
- Team Project 15%
- Final Exam 30%

**Written Report:** During the semester student will research one of 3-5 current topics on the Fixed Income Market and write a brief (2 -3 page) report. Due Date: ()!

**Team Project:** Each team will provide a brief report assessing their particular market segment. They will need to provide an overview, analysis, and recommendation. Due Date: () in person presentation!

**MAKE – UP POLICY:** There will be no make-ups without a medical note or an excuse approved by the Dean. If you miss one quiz or exam I will simply count your final exam grade in its place.

If you miss two exams and/or quiz this will not apply to the second; you will receive a zero for the combination of the two tests that you missed.

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## GRADING POLICY

Course grades will be determined at the end of the semester based on your cumulative points and the relative performance of the class based on the material presented. The points you earn in the course will determine the grade you receive.

Your final grade is not subject to negotiation. If you feel I have made an error, submit your written argument to me within three days of receiving your final grade. Clarify the precise error I made and provide all due supporting documentation. If I have made an error, I will gladly correct it. But I will adjust grades only if I have made an error. I cannot and will not adjust grades based on consequences, such as hurt pride, lost scholarships, lost tuition reimbursement, lost job opportunities, or dismissals. Do not ask me to do so.

The guideline specifies that the average grade (where A=4, B+=3.5, B=3, C+=2.5, C=2, D=1 and F=0) should be between 2.95 and 3.15.

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## COURSE SCHEDULE

To get maximum return from your investment in this course, it's strongly recommend that you read the assigned chapters **before** class and review the PowerPoint presentations associated with each lecture.

Class	Topics	Reading (Fabozzi 9 <sup>th</sup> Edition)
()	<p>Overview of Bond sectors, features, &amp; risks</p> <p>Overview of the time value of money</p> <p>Pricing a bond, and price-yield relationship beginning</p>	Chap. 1 & 2
()	<p>Computing yields and understanding features that impact them</p> <p>Bond sources of return, reinvestment risk, and total return</p> <p>Price-yield relationship, duration &amp; convexity</p>	Chap. 3 & part of 4 (through p.80)
()	<p>Duration &amp; Convexity relationship</p> <p>Non-parallel YC shifts and key rate duration</p> <p>The term structure of rates</p> <p>Spot &amp; forward rates</p> <p>Theories about term structures of I-rates</p>	Part of Chap 4 and Chap 5
()	<p>Treasury security types and practices</p> <p>TIPS &amp; Treasury Auctions</p> <p>Strips &amp; Federal Agency Securities</p> <p>Corporates &amp; Seniority of Payments</p> <p>Bankruptcy rights &amp; Ratings</p> <p>Embedded Options, Covenants &amp; High Yield</p> <p>CP, Bank Loans, Default &amp; Credit Risk</p>	Chap. 6 & 7
()	<p>Municipal Revenue &amp; GO's</p> <p>Hybrid &amp; Special Bond Securities</p> <p>Muni MMKT products, Credit &amp; Default Rates</p>	Chap. 8 & 9

	<p>Risk &amp; Yields on Munis</p> <p>International Bond Issuers &amp; Structures</p> <p>FX Exchange Risk &amp; Intl. Bond Types</p> <p>Emerging Market Bonds &amp; Risks</p>	
()	<b>Quiz</b>	Possible catch up or additional chapters covered
()	<p>Residential Mortgage Loans Types and Classifications</p> <p>Conforming Loans &amp; Risks in MBS</p> <p>RMBS Securities &amp; Types</p> <p>Issuers of Agency Pass-Through Securities</p> <p>Prepayment Conventions &amp; Cash Flow</p> <p>Prepayment Risk &amp; A/L Management</p>	Chap. 10 & 11
()	<p><b>New Quiz Day!!</b></p> <p>Agency CMO's &amp; stripped MBS</p> <p>Collateral types</p> <p>Credit enhancement</p> <p>CF's for non-agency MBS</p>	Chap. 12 & 13
()	<p>Commercial mortgage loans</p> <p>CMBS &amp; types</p> <p>Asset Backed Securities &amp; Risks</p> <p>Dodd Frank reform</p> <p>Investing in pooled vehicles</p> <p>ETFs &amp; Hedge Funds</p> <p>Real Estate investment mortgage trusts</p>	Chap. 14, 15, & 16
()	<b>Midterm</b>	Possible catch up or additional chapters covered

()	<p>One factor Interest Rate Models</p> <p>Selecting an I-rate model</p> <p>Estimating I-rate volatility</p> <p>Yield Spread analysis challenges</p> <p>Static Spread</p> <p>Bonds with Embedded options</p> <p>Effective duration &amp; convexity</p>	Chap. 17 & 18
()	<p><b>New Midterm Day!!!!</b></p> <p>Monte Carlo Simulation</p> <p>Total Return Analysis</p> <p>Convertible bond provisions &amp; categorization</p> <p>Analytical concepts for convertible bond analysis</p> <p>Pros and cons of convertible bonds</p>	Chap. 19 & 20
()	<p>Change in credit spreads and volatility</p> <p>Duration for corporates</p> <p>Corporate bond credit analysis</p>	Chap. 21, 22, & 23
()	<b>Paper is due</b>	Chap. 24 & 25
()		Chap. 26 & 27
() – ()	Complete unfinished material, review in person Team Project Due	
<b><i>FINAL AS SCHEDULED</i></b>		

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## SUPPORT SERVICES

If you need accommodation for a *disability*, obtain a Letter of Accommodation from the Office of Disability Services. The Office of Disability Services at Rutgers, The State University of New Jersey, provides student-centered and student-inclusive programming in compliance with the Americans with Disabilities Act of 1990, the Americans with Disabilities Act Amendments of 2008, Section 504 of the Rehabilitation Act of 1973, Section 508 of the Rehabilitation Act of 1998, and the New Jersey Law Against Discrimination. More information can be found at [ods.rutgers.edu](http://ods.rutgers.edu).

[Rutgers University-New Brunswick ODS phone (848)445-6800 or email [dsoffice@echo.rutgers.edu](mailto:dsoffice@echo.rutgers.edu)]

[Rutgers University-Newark ODS phone (973)353-5375 or email [ods@newark.rutgers.edu](mailto:ods@newark.rutgers.edu)]

If you are *pregnant*, the Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy.

[Rutgers University-New Brunswick Title IX Coordinator phone (848)932-8200 or email [jackie.moran@rutgers.edu](mailto:jackie.moran@rutgers.edu)]

[Rutgers University-Newark Office of Title IX and ADA Compliance phone (973)353-1906 or email [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu)]

If you seek *religious accommodations*, the Office of the Dean of Students is available to verify absences for religious observance, as needed.

[Rutgers University-New Brunswick Dean of Students phone (848)932-2300 or email [deanofstudents@echo.rutgers.edu](mailto:deanofstudents@echo.rutgers.edu)]

[Rutgers University-Newark Dean of Students phone (973)353-5063 or email [DeanofStudents@newark.rutgers.edu](mailto:DeanofStudents@newark.rutgers.edu)]

If you have experienced any form of *gender or sex-based discrimination or harassment*, including sexual assault, sexual harassment, relationship violence, or stalking, the Office for Violence Prevention and Victim Assistance provides help and support. More information can be found at <http://vpva.rutgers.edu/>.

[Rutgers University-New Brunswick incident report link: <http://studentconduct.rutgers.edu/concern/>. You may contact the Office for Violence Prevention and Victim Assistance at (848)932-1181]

[Rutgers University-Newark incident report link:

[https://cm.maxient.com/reportingform.php?RutgersUniv&layout\\_id=7](https://cm.maxient.com/reportingform.php?RutgersUniv&layout_id=7) . You may also contact the Office of Title IX and ADA Compliance at (973)353-1906 or email at [TitleIX@newark.rutgers.edu](mailto:TitleIX@newark.rutgers.edu). If you wish to speak with a staff member who is confidential and does **not** have a reporting responsibility, you may contact the Office for Violence Prevention and Victim Assistance at (973)353-1918 or email [run.vpva@rutgers.edu](mailto:run.vpva@rutgers.edu)]

If students who have experienced a temporary condition or injury that is adversely affecting their ability to fully participate, you should submit a request via <https://temporaryconditions.rutgers.edu>.

If you are a military **veteran** or are on active military duty, you can obtain support through the Office of Veteran and Military Programs and Services. <http://veterans.rutgers.edu/>

If you are in need of **mental health** services, please use our readily available services.

[Rutgers University-Newark Counseling Center: <http://counseling.newark.rutgers.edu/>]

[Rutgers Counseling and Psychological Services–New Brunswick: <http://rhscaps.rutgers.edu/>]

If you are in need of **physical health** services, please use our readily available services.

[Rutgers Health Services – Newark: <http://health.newark.rutgers.edu/>]

[Rutgers Health Services – New Brunswick: <http://health.rutgers.edu/>]

If you are in need of **legal** services, please use our readily available services: <http://rusls.rutgers.edu/>

Students experiencing difficulty in courses due to **English as a second language (ESL)** should contact the Program in American Language Studies for supports.

[Rutgers–Newark: [PALS@newark.rutgers.edu](mailto:PALS@newark.rutgers.edu)]

[Rutgers–New Brunswick: [eslpals@english.rutgers.edu](mailto:eslpals@english.rutgers.edu)]

If you are in need of additional **academic assistance**, please use our readily available services.

[Rutgers University-Newark Learning Center: <http://www.ncas.rutgers.edu/rlc>

[Rutgers University-Newark Writing Center: <http://www.ncas.rutgers.edu/writingcenter>]

[Rutgers University-New Brunswick Learning Center: <https://rlc.rutgers.edu/>]

[Optional items that many faculty include:

- Students must sign, date, and return a statement declaring that they understand the RU Academic Integrity Policy.

- Students must sign, date, and return a statement declaring that they understand this syllabus.]