

Rutgers University, School of Business – Camden
52:390:425:01 Fixed Income Securities
Spring 2018
Meets Monday and Wednesday 12:30 p.m. – 1:50 p.m. in BSB 132

Professor: Gene Pilotte
Office: BSB 317
Phone: 856-225-6548
Email: pilotte@camden.rutgers.edu
Office hours: To be announced

Course Description

This course will provide an introduction to fixed income securities and interest rate derivatives. The objectives of the course are to

- describe important fixed income securities and markets, and
- develop the analytical tools needed to value these securities and to manage interest rate risk.

The course begins with the analysis of securities characterized by pre-determined cash flows that occur at fixed points in time, then develops the tools needed to analyze interest rate derivatives and debt securities with embedded options. Mastery of the material covered is essential if you intend to pursue professional certifications such as the CFA (Chartered Financial Analyst) or FRM (Financial Risk Manager).

Required Text Book

A customized text, *Finance 425/ Finance 530 Fixed Income Securities*, prepared by Pearson Custom Library is available through the campus bookstore. ISBN-10: 1-323-34952-9. ISBN-13: 978-1-323-34952-6.

The custom text contains selected chapters from the following textbook, which is a more expensive option. *Bond Markets, Analysis and Strategies*, by Frank J. Fabozzi, Ninth edition, Pearson Prentice Hall. ISBN 978-0133796773.

Online Resources at <http://sakai.rutgers.edu>

By registering for this course (and paying your bill), you will automatically have access to the Sakai site for this course. All you need to log onto Sakai is your Rutgers NetID and password. When you log onto Sakai you will see a tab associated with this course. Clicking on the tab takes you to the course homepage. Once you are there, you will see in the **left margin** links to all of the content and tools in the site. There are three links for this course:

Announcements – An area where I may periodically post announcements related to the course.

Resources - An area where you will have access to lecture outlines, homework problems homework solutions, and links to websites related to the course.

Syllabus – An area where you can access the course syllabus.

You should log onto the Sakai site and download the lecture outline for Part 1 of the course and bring it to the next class.

Financial Calculator

The minimum requirement for completing this course is a calculator with a power function. However, you will find things *much* easier if you have a financial calculator. If you are planning a career in finance, you need one. Two popular calculators are the Texas Instruments BA II Plus (or Plus Professional) and the HP 10BII. Another widely used, but more expensive, calculator is the Hewlett Packard 12C (original or Platinum). If you buy the HP12C you will have to get used to using Reverse Polish Notation. RPN is a method of data entry that minimizes the number of keystrokes used to do chain calculations. The HP12C Platinum allows both RPN and algebraic notation. Currently, the BA II Plus and the HP 12C (both versions of each) are the only calculators allowed for the Chartered Financial Analyst and Financial Risk Manager certification exams.

Exam Schedule and Grading Weights

There are three required exams, two during the semester and one during finals week. Note that the *exam dates are tentative and subject to change* at the instructor's discretion. The material covered will be identified and discussed prior to each exam. There are also two Bloomberg projects.

	<i>Scheduled Date (tentative)</i>	<i>Grading Weight</i>	<i>Percent Weight</i>
<i>Exam 1</i>	Monday, February 12	100 points	25%
<i>Exam 2</i>	Wednesday, March 21	100 points	25%
<i>Final Exam</i>	Mon. May 7, 11:30 a.m. – 2:20 p.m.	140 points	35%
<i>Bloomberg Project 1</i>	Due Wednesday, February 28	30 points	7.5%
<i>Bloomberg Project 2</i>	Due Monday, April 9	30 points	7.5%

Grades will be assigned based on each student's total points ranking relative to other student's taking the course.

Exam Make-up Policy

If, for a university approved reason, you cannot take an exam at the scheduled time you must give the professor written notice at least one week in advance so that other arrangements can be made. If the situation does not allow for advance notification (for example, emergency hospitalization), contact the professor as soon as possible. Make-up exams for non-university approved reasons are not guaranteed. The professor reserves the right to request written documentation to support your absence (such as a doctor's note, an obituary, or military orders).

Individual Bloomberg Projects

The Financial Markets Lab (BSB 106) hosts 16 Bloomberg terminals that provide student access to the same financial market data, news, research and analytics accessed "around the clock" by financial institutions, corporations, government agencies, and news organizations worldwide. Basic training can be accessed on the terminals and in workshops offered by lab staff. See the lab website for lab hours, training, and workshop details <http://fmlab.rutgers.edu/>. Each student in this course will be required to complete two projects that introduces you to functions commonly used by participants in the fixed income markets. Details will be announced later in the course.

Homework

Homework problems and solutions are available on the Sakai site. While these problems are not collected and graded it is essential that you do them in order to do well on the exams.

Extra Credit

There are no extra credit assignments.

Cell Phones: While in class, be considerate of those around you and turn off your cell phone. If an emergency may be imminent, notify me before class and an exception may be made. *All cell phones must be out of sight during exams.* I reserve the right to deduct 10 points from your score each time that I see your cell phone during an exam.

Last day to drop with a “W”

Monday April 2, 2018.

Access to student email accounts

At times, it may be necessary to send the class an email. For instance, notices of any unexpected class cancellations will be provided by this method. These emails will be sent to students' campus email addresses using either Sakai or the Rutgers automated mail system. It is each student's responsibility to insure that they have a campus email account and to check their email account.

Academic Integrity Policy

Policy Found at <http://academicintegrity.rutgers.edu/academic-integrity-at-rutgers>.

Students are responsible for understanding the principles of academic integrity and abiding by them in all aspects of their work at the University. Students are also encouraged to help educate fellow students about academic integrity and to bring all alleged violations of academic integrity they encounter to the attention of the appropriate authorities.

Academic Integrity means that you (the student) must:

- properly acknowledge and cite all use of the ideas, results, or words of others,
- properly acknowledge all contributors to a given piece of work,
- make sure that all work submitted as your own in a course activity is your own and not from someone else
- obtain all data or results by ethical means and report them accurately
- treat all other students fairly with no encouragement of academic dishonesty

Adherence to these principles is necessary in order to ensure that:

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments
- all student work is fairly evaluated and no student has an inappropriate advantage over others
- the academic and ethical development of all students is fostered
- the reputation of the University for integrity is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore

bears a responsibility for ensuring that the highest standards of academic integrity are upheld. Violations are taken seriously and will be handled according to University policy.

If there are questions on how to comply, please contact Mary Flaherty in the Rutgers-Camden Dean of Students office: marykreb@camden.rutgers.edu or contact the appropriate Associate Dean or Area Head at the School of Business.
Student Code of Conduct

Violations of the Student Code of Conduct are considered serious infractions of student behavior and students who violate the code are subject to penalties relative to the level of the matter. In general, students may not disturb normal classroom procedures by distracting or disruptive behavior. Examples of disruptive behavior include, but are not limited to, the following:

- Repeatedly leaving and entering the classroom without authorization
- Answering cellular phone or allowing pager to beep
- Making loud or distracting noises
- Repeatedly speaking without being recognized, interrupting the instructor or other students, or otherwise acting in disregard of the instructor's requests
- Threats or violence

Violations of the code should be reported to the Dean of Students office deanofstudents@camden.rutgers.edu or 856-225-6050. If the violation is immediate and a potential threat is a concern, call the Rutgers-Camden police at 856-225-6111

Disability Services

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>.

If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the Office of Disability Services web site at:

<https://ods.rutgers.edu/students/registration-form>.

Ajeenah Nuriddin-Little

(856) 225-2722

Rutgers-Camden Disability Services:

Rutgers-Camden Learning Center

Armitage Hall, Room 240

311 North Fifth Street, Camden, NJ 08102-1405

Web page: <https://learn.camden.rutgers.edu/disability-services>

E-mail: Ajeenah.nuriddin-little@camden.rutgers.edu

Course Outline

Note: My lectures on Parts 1 through 4 will correspond closely to the coverage in the text. Coverage of Parts 5 through 7 will include substantial additional material.

Chapter numbers are for the custom text. Should you buy the 9th edition of the complete Fabozzi text some chapter numbers will differ as indicated below.

Part 1: Basic bond concepts: pricing and yield measures

Chapters 1, 2, and 3
Homework 1

Part 2: Measures of bond price volatility: duration, convexity, and immunization

Chapter 4
Homework 2

Part 3: U.S. Treasury securities and the term structure of interest rates

Chapters 6 and 5, in that order
Homework 3

Part 4: Overview of corporate debt securities

Chapters 7 and 12
(For Fabozzi 9th edition, chapters 7 and 20)
Homework 4

Part 5: Risk neutral pricing of bonds and related options

Custom chapter 11 and pages 372-380 of chapter 14
(For Fabozzi 9th edition, chapter 18 and pages 698 – 706 of chapter 30)
Homework 5

Part 6: More interest rate derivatives: repurchase agreements, swaps, and futures

Chapter 13
(For Fabozzi 9th edition, chapter 29)
Homework 6

Part 7: Mortgage-backed securities

Chapters 8, 9, and 10
(For Fabozzi 9th edition, chapters 10, 11, and 12)
Homework 7

Final Exam: Mon. May 7, 11:30 a.m. – 2:20 p.m.