Instructor Details

Professor: Josephine Smith  
Email: jsmith@stern.nyu.edu  
Office Hours: Wednesdays from 3:00pm to 5:00pm  
Office Location: KMC 9-86

Teaching Assistant: Doneci Kone  
Email: doneci.kone@stern.nyu.edu  
Office Hours and Location: Mondays from 4:30pm to 5:30pm in KMC 2-70

Course Meetings

Meeting time(s): TR, 2:00pm to 3:15pm  
Location: Tisch LC21  
Final Exam: Tuesday, May 15th from 2:00pm to 3:50pm in Tisch LC21

Course Description and Learning Goals

This course describes important fixed income securities and markets and develops tools for valuing fixed income securities and managing interest rate risk. The course covers traditional bonds and term structure concepts, as well as fixed income derivatives and financial engineering.

Course Pre-Requisites

Foundations of Financial Markets

Required Course Materials

Required Resources  
Lecture notes and problem sets

Recommended Textbooks


Some info on the recommended textbooks: Both textbooks follow the outline of the course quite well. The Veronesi text was written recently, hence it has some more up-to-date material on the
development of fixed income markets, particularly related to the financial crisis. The Tuckman
text is a great reference, but is more dated yet analytical in nature.

Calculator
You need a calculator for this class. It is a distinct advantage to have a financial calculator, but
not an absolute requirement. Hopefully, you have already purchased one for your other finance
courses, and you will get good use out of a financial calculator. Standard financial calculators
include the HP 12C, the HP 10B-II and the TI BA-II Plus. You are expected to learn how to
operate the calculator on your own. Do not purchase a programmable calculator for this class.
They will not be allowed during the exams.

Computer Software
Every student of Stern is expected to be comfortable with Excel tools. In particular, any Finance
Area major is expected to have knowledge of these tools that extends beyond familiarity to an
individual awareness of the uses and limitations of this technology.

Course Outline

Tentative Outline of Lectures
The schedule below is meant to be a guideline of the topics covered in this course. Changes may
occur with notice from the professor.

<table>
<thead>
<tr>
<th>Date of Lecture</th>
<th>Topics Covered</th>
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<tbody>
<tr>
<td>Tuesday, January 24</td>
<td>Course overview, coupon bonds, zero-coupon bonds</td>
</tr>
<tr>
<td>Thursday, January 26</td>
<td>Rate of return, zero rates</td>
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<tr>
<td>Tuesday, January 31</td>
<td>Yield to maturity</td>
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<tr>
<td>Thursday, February 2</td>
<td>Duration</td>
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<tr>
<td>Tuesday, February 7</td>
<td>Immunization</td>
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<td>Thursday, February 9</td>
<td>Convexity</td>
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<tr>
<td>Tuesday, February 14</td>
<td>Forward contracts</td>
</tr>
<tr>
<td>Thursday, February 16</td>
<td>Forward rates</td>
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<tr>
<td>Tuesday, February 21</td>
<td>Floating rate notes</td>
</tr>
<tr>
<td>Thursday, February 23</td>
<td>Swaps</td>
</tr>
<tr>
<td>Tuesday, February 28</td>
<td>Swap spreads, forward rate agreements</td>
</tr>
<tr>
<td>Thursday, March 1</td>
<td>Repurchase agreements</td>
</tr>
<tr>
<td>Tuesday, March 6</td>
<td>MIDTERM</td>
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<tr>
<td>Thursday, March 8</td>
<td>No-arbitrage pricing</td>
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<tr>
<td>Tuesday, March 20</td>
<td>Risk-neutral probabilities</td>
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<tr>
<td>Thursday, March 22</td>
<td>Dynamic trading strategies</td>
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<tr>
<td>Tuesday, March 27</td>
<td>Financial engineering</td>
</tr>
<tr>
<td>Thursday, March 29</td>
<td>Hedging, options</td>
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</tbody>
</table>
Assessment Components

Final Exam (50%)
Midterm (40%)
Problem Sets (5%)
Class Participation (5%)

Exams

Closed note, closed book. Please bring a calculator that is non-programmable.

You must take each of your exams as scheduled, or your grade for the exam will be zero. There are two exceptions to this rule:

1. In case of a legitimate, foreseeable conflict, you must make a request in writing or by email at least one week prior to the scheduled exam date to take the exam at a different time, and this request must be approved by me in writing or by email prior to the scheduled exam date.
2. In case of an emergency, you must provide formal, written verification, such as a letter from a doctor.

Problem Sets

Because the material is technical and new concepts build on old ones, it will be essential to do the weekly problem sets in order to follow the lectures and succeed on the exams. The majority of these problem sets will be done in Excel through Blackboard. To facilitate learning, I encourage students to work together on these problem sets. Groups of students working together should submit just one assignment. All students in the same group will get the same grade. Late assignments will not be accepted.
Warning

The study of fixed income securities is quantitative by nature, and this course will be taught very rigorously. The course will require a consistent commitment of time, energy, and concentration, both inside and outside class, throughout the semester.

Grading

At NYU Stern we seek to teach challenging courses that allow students to demonstrate their mastery of the subject matter. In general, students in undergraduate core courses can expect a grading distribution where:

- 25-35% of students can expect to receive A’s for excellent work
- 50-70% of students can expect to receive B’s for good or very good work
- 5-15% of students can expect to receive C’s or less for adequate or below work

Note that while the School uses these ranges as a guide, the actual distribution for this course and your own grade will depend upon how well you actually perform in this course.

Re-Grading

The process of assigning grades is intended to be one of unbiased evaluation. Students are encouraged to respect the integrity and authority of the professor’s grading system and are discouraged from pursuing arbitrary challenges to it.

If you believe an inadvertent error has been made in the grading of an individual assignment or in assessing an overall course grade, a request to have the grade re-evaluated may be submitted. You must submit such requests in writing to me within two class days of receiving the grade, including a brief written statement of why you believe that an error in grading has been made.

If you do request to have a problem set or exam re-graded, I will re-grade it in its entirety. Therefore, it is under your best interest to be sure you are willing to accept a lower grade if it is deemed necessary upon another review of the submission.

Academic Integrity

Integrity is critical to the learning process and to all that we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:

- Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
• Clearly acknowledge the work and efforts of others when submitting written work as one’s own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.

• Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

The entire Stern Student Code of Conduct applies to all students enrolled in Stern courses and can be found here:

Undergraduate College: [http://www.stern.nyu.edu/uc/codeofconduct](http://www.stern.nyu.edu/uc/codeofconduct)

To help ensure the integrity of our learning community, prose assignments you submit to Blackboard will be submitted to Turnitin. Turnitin will compare your submission to a database of prior submissions to Turnitin, current and archived Web pages, periodicals, journals, and publications. Additionally, your document will become part of the Turnitin database.

**Professional Responsibilities For This Course**

**Attendance**

• Class attendance is essential to your success in this course and is part of your grade. An excused absence can only be granted in cases of serious illness, grave family emergencies, or religious observance and must be documented. Job interviews and incompatible travel plans are considered unexcused absences. When possible, please notify me in advance of an excused absence.

**Participation**

In-class contribution is a significant part of your grade and an important part of our shared learning experience. Your active participation helps me to evaluate your overall performance. You can excel in this area if you come to class on time and contribute to the course by:

• Providing strong evidence of having thought through the material.
• Advancing the discussion by contributing insightful comments and questions.
• Listening attentively in class.
• Demonstrating interest in your peers' comments, questions, and presentations.
• Giving constructive feedback to your peers when appropriate.

**Assignments**

• Late assignments will either not be accepted or will incur a grade penalty unless due to documented serious illness or family emergency. Exceptions to this policy for reasons of religious observance or civic obligation will only be made available when the assignment cannot reasonably be completed prior to the due date and you make arrangements for late submission in advance.
Classroom Norms

- Arrive to class on time and stay to the end of the class period. Chronically arriving late or leaving class early is unprofessional and disruptive to the entire class. Repeated tardiness will have an impact on your grade.
- Turn off all electronic devices prior to the start of class. Laptops, cell phones and other electronic devices are a distraction to everyone.

Stern Policies

General Behavior
The School expects that students will conduct themselves with respect and professionalism toward faculty, students, and others present in class and will follow the rules laid down by the instructor for classroom behavior. Students who fail to do so may be asked to leave the classroom.

Collaboration on Graded Assignments
Students may not work together on graded assignment unless the instructor gives express permission.

Course Evaluations
Course evaluations are important to us and to students who come after you. Please complete them thoughtfully.

Recording of Classes
Your class may be recorded for educational purposes

Students with Disabilities
If you have a qualified disability and will require academic accommodation of any kind during this course, you must notify me at the beginning of the course and provide a letter from the Moses Center for Students with Disabilities (CSD, 998-4980, www.nyu.edu/csd) verifying your registration and outlining the accommodations they recommend. If you will need to take an exam at the CSD, you must submit a completed Exam Accommodations Form to them at least one week prior to the scheduled exam time to be guaranteed accommodation.