

MATH 346: Mathematics of Finance I

Spring 2021 Course Syllabus

NJIT Academic Integrity Code: All Students should be aware that the Department of Mathematical Sciences takes the University Code on Academic Integrity at NJIT very seriously and enforces it strictly. This means that there must not be any forms of plagiarism, i.e., copying of homework, class projects, or lab assignments, or any form of cheating in quizzes and exams. Under the University Code on Academic Integrity, students are obligated to report any such activities to the Instructor.

COURSE INFORMATION

Course Description: The main topics include basic problems in interest, annuities, certain amortization and sinking funds, bonds and related securities.

Number of Credits: 3

Prerequisites: MATH 112 with a grade of C or better or MATH 133 with a grade of C or better.

Course-Section and Instructors

Course-Section	Instructor
Math 346-002	Professor K. Rappaport

Office Hours for All Math Instructors: [Spring 2021 Office Hours and Emails](#)

Required Textbook:

Title	<i>Theory of Interest</i>
Author	Kellison
Edition	3rd
Publisher	McGraw-Hill
ISBN #	978-0073382449

University-wide Withdrawal Date: The last day to withdraw with a W is **Monday, April 5, 2021**. It will be strictly enforced.

POLICIES

DMS Course Policies: All DMS students must familiarize themselves with, and adhere to, the [Department of Mathematical Sciences Course Policies](#), in addition to official [university-wide policies](#). DMS takes these policies very seriously and enforces them strictly.

Grading Policy: The final grade in this course will be determined as follows:

Homework	15%
Projects 5, 6, 7	30%
Projects 2, 3	20%
Projects 1, 4	10%
Final Exam	25%

Your final letter grade will be based on the following tentative curve.

A	90 - 100	C	65 - 76
B+	87 - 89	D	55 - 64
B	80 - 86	F	0 - 54
C+	77 - 79		

Attendance Policy: Attendance at all classes will be recorded and is **mandatory**. Please make sure you read and fully understand the **Math Department's Attendance Policy**. This policy will be strictly enforced.

Homework: Integrity - Your work is expected to be your own. Help from tutors, classmates etc is encouraged but you are responsible for mastering the material. Homework will be assigned at all classes. Homework will be collected and periodic quizzes will be given. Late homework will not receive full credit. There will be no makeup tests, quizzes, or homework.

Projects: There will be 7 projects assigned during the semester.

- Projects 5, 6, 7 are chapter projects.
- Projects 2, 3 are Bloomberg case studies.
- Projects 1, 4 are spreadsheets projects.

Exams: Exams will be proctored by using both Respondus LockDown Browser+Monitor and Webex. Students will be required to join a Webex meeting from their phone with their cameras on, and to access the exam through LockDown Browser on a Mac or Windows PC with webcam. Students must follow all instructions related to environment checks and camera positioning. After the exam is submitted the student will log out of Respondus and will then be required to submit their work upload within 15 minutes of submitting their exam.

There will be one comprehensive final exam. The final exam will be held during the following week:

Final Exam Period	May 7 - 13, 2021
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The final exam will test your knowledge of all the course material taught in the entire course. Make sure you read and fully understand the **Math Department's Examination Policy**. This policy will be strictly enforced.

Makeup Exam Policy: There will be **NO MAKE-UP QUIZZES OR EXAMS** during the semester. In the event an exam is not taken under rare circumstances where the student has a legitimate reason for missing the exam, the student should contact the Dean of Students office and present written verifiable proof of the reason for missing the exam, e.g., a doctor's note, police report, court notice, etc. clearly stating the date AND time of the mitigating problem. The student must also notify the Math Department Office/Instructor that the exam will be missed.

Cellular Phones: All cellular phones and other electronic devices must be switched off during all class times.

ADDITIONAL RESOURCES

Math Tutoring Center: Located in the Central King Building, Lower Level, Rm. G11 (See: [Spring 2021 Hours](#))

Further Assistance: For further questions, students should contact their instructor. All instructors have regular office hours during the week. These office hours are listed on the Math Department's webpage for [Instructor Office Hours and Emails](#).

All students must familiarize themselves with and adhere to the Department of Mathematical Sciences Course Policies, in addition to official university-wide policies. The Department of Mathematical Sciences takes these policies very seriously and enforces them strictly.

Accommodation of Disabilities: The Office of Accessibility Resources and Services (OARS) offers long term and temporary accommodations for undergraduate, graduate and visiting students at NJIT.

If you are in need of accommodations due to a disability please contact Chantonette Lyles, Associate Director of the Office of Accessibility Resources and Services at [973-596-5417](tel:973-596-5417) or via email at lyles@njit.edu. The office is located in Kupfrian Hall, Room 201. A Letter of Accommodation Eligibility from the Office of Accessibility Resources and Services authorizing your accommodations will be required.

For further information regarding self identification, the submission of medical documentation and additional support services provided please visit the Office of Accessibility Resources and Services (OARS) website at:

- <https://www.njit.edu/studentsuccess/accessibility/>

Important Dates (See: [Spring 2021 Academic Calendar](#), [Registrar](#))

Date	Day	Event
January 19, 2021	T	First Day of Classes
January 23, 2021	S	Saturday Classes Begin
January 25, 2021	M	Last Day to Add/Drop Classes
March 14 - March 21, 2021	Su - Su	Spring Recess - No Classes
April, 2, 2021	F	Good Friday - No Classes
April 5, 2021	M	Last Day to Withdraw
May 4, 2021	T	Friday Classes Meet
May 4, 2021	T	Last Day of Classes
May 5 & May 6, 2021	W & R	Reading Days
May 7 - May 13, 2021	F - R	Final Exam Period

Course Outline

Lecture	Section	Topic
1	Chapter 1	Measurement of Interest
2	Chapter 1	Measurement of Interest
3	Chapter 1	Measurement of Interest
4	Chapter 1	Measurement of Interest
5	Chapter 1	Measurement of Interest

6	Chapter 1	Measurement of Interest
7	Chapter 1	Measurement of Interest
8	Chapter 2	Equations of Value
9	Chapter 2	Equations of value
10	Chapter 2	Equations of Value
11	Chapter 2	Equations of Value
12	Chapter 2	Equations of Value
13	Chapter 2	Equations of Value
14	Chapter 2	Equations of Value
15	Chapter 2	Equations of Value
16	Chapter 3	Basic Annuities
17	Chapter 3	Basic Annuities
18	Chapter 3	Basic Annuities
19	Chapter 2	Basic Annuities
20	Chapter 3	Basic Annuities
21	Chapter 3	Basic Annuities
22	Chapter 3	Basic Annuities
23	Chapter 3	Basic Annuities
24	Chapter 3	Basic Annuities
25	Chapter 4	Yields
26	Chapter 4	Yields
27	Chapter 4	Yields
28	Chapter 4	Yields

*Updated by Professor K. Rappaport - 1/13/2021
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