COURSE SYLLABUS

FORDHAM UNIVERSITY
DEPARTMENT OF MATHEMATICS

COURSE: MATH 1100- L11  Finite Mathematics  TERM: Summer I 2020

CLASS TIMES: TWR 6:00 PM - 9:00 PM  COURSE TYPE: ONLINE

INSTRUCTOR: Xiaojin Ye  EMAIL ADDRESS: xye21@fordham.edu

OFFICE HOUR: Zoom meeting office hour every Wednesday (5 pm to 6 pm)
Early intervention is important to succeed in the class, you are very welcome to email me for any questions. I usually reply student’s emails within 24 hours. I offer zoom meeting office hour every Wednesday (5 pm to 6 pm). Please email me to make an appointment of the zoom meeting.

1. COURSE CONTENT

This course fulfills the mathematical and computational reasoning requirement in Fordham’s core curriculum. The aim of this requirement is to develop the fundamental skills involved in mathematical and computational approaches to problem solving, reasoning and an understanding of our world. These skills also form the basis for advanced reasoning in many areas and provide a basis for testing logic, solving problems and evaluating mathematical and computational arguments and evidence in daily life.

After completing this requirement, students will be prepared to explore quantitative and computational issues in the natural sciences, the social sciences and the humanities.

In pursuit of these aims, we will explore two main topics: probability and statistics, and mathematical finance. This corresponds to the following chapters of the textbook.

- Chapter 7: Sets and Probability
- Chapter 8: Counting Principles and Further Probability Topics
- Chapter 9: Statistics
- Chapter 5: Mathematics of Finance.

2. TEXTBOOK REQUIRED:


1. Students will need to purchase a subscription to Pearson’s MyMathLab platform. This includes access to our weekly homework assignments, and an e-copy of the textbook. Visit https://registration.mypearson.com to enroll, and use our course ID: ye35603

You do not need a physical copy of the book.
3. **GRADING POLICY:**

Homework ...................... 20%
Quizzes ...................... 10%
Exam 1 ...................... 20%
Exam 2 ...................... 20%
Final Exam .................. 30%

4. **ATTENDANCE POLICY:**

Students may be dropped after 3 absences. Regular attendance is essential for the successful completion of this course.

5. **HOMEWORK:**

Homework assignments will be assigned in MyMathlab after each class. Late homework will only be accepted with the permission of your instructor. Please look at the last page for the online homework instruction.

6. **QUIZZES:**

There will be about 5 online quizzes assigned in MyMathLab for the summer session. There are no makeup quizzes will be given. We will drop one lowest quiz grade. You will get two attempts on each quiz and the highest score will be accepted.

7. **EXAMS:**

There will be 2 midterm exams and 1 final exam during the summer session. All exams will be given in MyMathLab. More detail exam information will be provided in the exam review session.

**Make-up tests will only be permitted for absences due to a documented family or medical emergency.** In order to qualify for a make-up test, the student must contact the instructor within 24 hours of the absence by email and be prepared to provide documentation validating the absence if requested.

8. **ACADEMIC INTEGRITY:**

By being enrolled at Fordham University, students are bound to comply with the University Code of Conduct, which includes, but is not limited to the Standards of Academic Integrity.
9. DISABILITIES:

Under the Americans with Disabilities Act, all members of the campus community are entitled to equal access to the programs and activities of Fordham University. If you have (or think that you might have) a disability that may impact your participation in the activities, coursework, or assessment of this course, you may be entitled to accommodations through the Office of Disability Services. You can contact them at 718-817-0655, disabilityservices@fordham.edu. Whether or not you have documentation for accommodations, your success in this class is important to me. If there are aspects of the course that are not accessible to you, please let me know as soon as possible so that we can work together to develop strategies to meet both your needs and the requirements of the course.

10. COURSE OUTLINE:

All learning guides, lecture videos, handouts, lecture note will be posted in the blackboard. For each section, I will provide lecture video, lecture handout, and the detailed lecture note. We will have one live session (Zoom meeting) each week from 6 pm to 7 pm on the scheduled dates.

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td><strong>Week 1</strong></td>
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<tr>
<td>5/26</td>
<td>Zoom meeting: Class tutorial (Syllabus, Instruction of online homework, quiz, test)</td>
<td>Video Lecture: 7.1 Sets</td>
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<td>Video Lecture: 7.2 Applications of Venn Diagrams</td>
<td>Video Lecture: 7.3 Basic Concepts of Probability</td>
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<td>5/28</td>
<td>Quiz 1 of Section 7.1 7.2</td>
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<td><strong>Week 2</strong></td>
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<td>6/2</td>
<td>Quiz 2 of Section 7.3 7.4</td>
<td>Video Lecture: 7.5 Conditional Probability Independent Events (Part 2)</td>
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<td>Video Lecture: 7.6 Bayes’ Theorem;</td>
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<td>6/3</td>
<td>Zoom meeting: Review of Exam 1</td>
<td>Review of Exam 1 Exercise</td>
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<tr>
<td>6/4</td>
<td><strong>Exam 1</strong></td>
<td>Video Lecture: 8.1 The Multiplication Principle;</td>
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### Week 3

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<tr>
<th>Date</th>
<th>Video Lecture 1</th>
<th>Video Lecture 2</th>
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<tr>
<td>6/9</td>
<td>8.2 Permutations Combinations</td>
<td>8.3 Probability Applications of Counting Principles;</td>
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<td>6/10</td>
<td>8.4 Binomial Probability</td>
<td>8.5 Probability Distributions;</td>
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<td>6/11</td>
<td>Review of Exam 2</td>
<td>Review of Exam 2 Exercise</td>
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<td>Quiz 3 of Section 8.1 8.2</td>
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### Week 4

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<tr>
<th>Date</th>
<th>Video Lecture 1</th>
<th>Video Lecture 2</th>
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<tr>
<td>6/16</td>
<td>9.1 Frequency Distributions; Measures of Central Tendency</td>
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<tr>
<td>6/17</td>
<td>9.2 Measures of Variation;</td>
<td>5.1 Simple and Compound Interest (Part 1)</td>
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<tr>
<td>6/18</td>
<td>Quiz 4 of Section 9.1 9.2</td>
<td>5.1 Simple and Compound Interest (Part 2)</td>
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<td>Video Lecture: 5.2 Future Value of an Annuity</td>
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### Week 5

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<tr>
<th>Date</th>
<th>Video Lecture 1</th>
<th>Video Lecture 2</th>
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<tr>
<td>6/23</td>
<td>5.3 Amortization Extra material</td>
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<td>Review for Final Exam Exercise</td>
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<tr>
<td>6/24</td>
<td>Review for Final Exam Exercise</td>
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<tr>
<td>6/25</td>
<td>Final Exam</td>
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11. DISCLAIMER:
The course syllabus is a general plan for the course. The instructor may deviate from the syllabus, but all such deviations will be announced in class and posted to the course webpage.