**FORDHAM UNIVERSITY**

**MATHEMATICS DEPARTMENT Instructor: Dr. John Loase**

**MATH 1100, Finite Mathematics**

Description

The course includes will focus upon Probability, Statistics, Logic, and Mathematics of Finance. These topics are essential to your future personal and professional life. Dr. Ben Fusaro, founder of the International Contest of Mathematical Modeling and the Environmental Mathematics discipline, asked John Loase “What is the most important college course”? I quickly answered. “ STATISTICS” . Ben agreed. This course will focus upon Probability, Statistics, and Finance.

Please google Arthur Benjamin Ted Talks –“Teach Statistics Before Calculus”. Dr. Loase will distribute his two articles published in 2007 and 2009 in the Mathematical Association of America journal Focus, that called for exactly what Dr. Benjamin is recommending. The first course assignment is to write a one page response essay, commenting on the talk by Dr. Benjamin and Dr. Loase’s two articles. Due date to be announced.

This course will feature interdisciplinary connections to psychology, Finance, education , and more. We will cover Sets, Venn diagrams, Basic Concepts of Probability, Independent Events, Bayes’ Theorem, Counting Principles, Further Probability Topics, Logic, Mathematics of Finance, and Selected Topics of Statistics (using Dr. Loase’s text *Statistics Made Easy* (free).

This course is designed to introduce general liberal arts students to the use of mathematics as a tool in the solution of problems that arise in the "real world". The five one page response essays are enrichment activities, empowering the student to reflect on the applications of the course to his/ her future personal and professional life.

3 Credits

COURSE CONTENT

1. Sets, Venn Diagrams Chapter 7 Probability Test 1
2. Chapter 8 Counting , Permutations , Combinations, additional probability topics, Logic Test 2
3. Mathematics of Finance and selected topics from Statistics, Loase’s text distributed free. Test 3

GRADING

30% Tests Lowest grade dropped

30 % Five one Page Response Essays

30% Final Exam

10% Participation /Attendance

You may bring index cards to each test and Final exam. Late =Absence. Please be early for class.

If you earn below 70 on any test, you can gain bonus points by taking the missed questions again.

If you miss an exam the Final counts for that exam grade.

Mathematics is a participant sport , not a spectator’s sport . Get involved. This course has high success rates, especially with 30% of the grade based on five short essays you can revise for 100%.

Plagiarism or copying another’s work results in 50% grade. A second offense results in 0 grade.

Texts

Finite Mathematics, Lial, Greenwell, and Ritchey Pearson, 11th ed

Viktor Frankl Man’s Search for Meaning Beacon Press 1959 and other editions Less than $10

Richer than a Millionaire Danko and Van Ness (2017) $4 Kindle

Free from Loase

*The Sigfluence Generation: Our Young People’s Potential to Transform* America – free at sigfluence .com

J. Loase *Statistics Made Easy* Graduate Group Second half of the text with Mathematics of Finance and selected topics from Statistics distributed free of charge.

Complete text $25 Graduate Group

Work in homework teams of 4 or 5 , so everyone thrives.

HOMEWORK ESSAYS

Homework is essential to success. Work in homework teams of 4 or 5. That way, everyone thrives. Each essay, submitted on time, can be revised for 100%. The revised essays and late essays are due the last class. The description of the essays will be distributed and discussed in class.

EXTRA HELP

I will make myself free before or after class if I can be of help. The Department of Mathematics runs a Math Help Room by faculty and student tutors- at Lincoln Center room LL819C. The Help Room is available on different weekdays. No appointment is required. Assistance is offered on a first-come, first –served basis. Any student enrolled in a Fordham mathematics class is welcome. There is no charge. Schedules are posted on the door of the room.

CALCULATOR

The calculator is essential. My book , that I will distribute in class for the final 1/3 of the course, uses the TI 83 for the Mathematics of Finance and Statistics. The TI 84 is fine as well.

ACADEMIC INTEGRITY

Students are bound by the University Code of Conduct, which includes, but not limited to the Standards of Academic Integrity.

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 you 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. They can be contacted at 718-817-0655 , [disabilityservices@fordham.edu](mailto:disabilityservices@fordham.edu), or by visiting Lowenstein .

Whether or not you have documentation for accommodations, I will help to ensure your success in this course . Please see me early in the course, if you perceive a difficulty in your coursework.

Dr. John Loase

Prepared Nov. 27, 2018