**Introduction to Probability** 

Office: MATH 136

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Office Hours: MWRF 12 - 1, or by appointment

**Text:** Mathematical Statistics with Applications (7<sup>th</sup> ed) by Wackerly, Mendenhall, and Scheaffer. Chapter 2-7

**Prerequisite:** a grade of C or better in Math 323 (or an equivalent course) or consent of the department. If you have no better than a C in Math 323 you will probably really struggle in this course.

**Learning outcomes:** This is a prerequisite for Math 448 (the statistics half of the sequence) and for Math 449 (preparation for the first actuarial exam). The learning outcome(s) is the probability necessary for these two courses. We will cover Chapters 2 – 7 of the text. Topics include: basic counting techniques, common discrete and absolutely continuous distributions, conditioning, moments and related topics, and some limit theorems.

**Electronic devices**: Laptops, cellphones and tablets can be used only for note-taking or polling. You will not be allowed to use any electronic device during the exams, except calculators.

Homework: Homework will use a web-based system

(<a href="http://www1.math.binghamton.edu/webwork2/Math\_447\_Spring\_2016/">http://www1.math.binghamton.edu/webwork2/Math\_447\_Spring\_2016/</a>) and will contribute to the grade. Your username is the first part of your email, and your initial password is your email. For example for <a href="mailto:jsmith13@binghamton.edu">jsmith13@binghamton.edu</a>, the username is jsmith13 and password is <a href="jsmith13@binghamton.edu">jsmith13@binghamton.edu</a>.

**Quizzes:** I will use the system called REEF Polling to quiz you during the lectures. You will need a laptop, or a tablet, or a smart phone with a browser to use this system. You will need to register and pay for an account at <a href="http://app.reef-education.com">http://app.reef-education.com</a>. The quizzes will account for 5% of the grade.

## **Grading:**

Final Exam 40%

Test 1 15%

Test 2 15%

Test 3 15%

Online Homework 10%

In-Class Quizzes 5%

**COMMUNICATION:** Check your BU e-mail address frequently.

**USEFUL RESOURCES:** There are online lectures available for similar courses. For example: <a href="http://ocw.uci.edu/courses/math\_131a\_introduction\_to\_probability\_and\_statistics.html">http://ocw.uci.edu/courses/math\_131a\_introduction\_to\_probability\_and\_statistics.html</a>

## **REEF Polling**

I will be using REEF Polling in class this term. REEF Polling helps me to understand what you know and gives everyone a chance to participate in class. Participation with REEF Polling will be taken in consideration when determining your final grade.

You will need to create a REEF Polling account to vote in class using your laptop, smart phone, or tablet connected to the university's Wi-Fi.

## **Creating Your REEF Polling Account**

Go to <a href="http://reef-education.com">http://reef-education.com</a> or download the REEF Polling app for iPhone/iPad to sign up for a REEF Polling account. You should use your university email address and your Student ID. If you need to change your email address, password, or student ID, edit your account profile. Do <a href="mailto:note">not</a> create and use more than one REEF Polling account as you will only receive credit from a single account.

## Add This Course to Your REEF Polling Account

Search with the following information to find this course and add it to your REEF Polling account:

Institution: SUNY at Binghamton

Course: Probability Theory

Instructor: Kargin