Math 17: Applications of Finite Math
Spring 2016

Instructor: Ryan Gallagher
Email: ryan.gallagher@uvm.edu (please include “Math 17” in the subject line)
Office Location: Farrell Hall, Room 204 (on Trinity Campus)
Office Hours: MW 2:30-4:00pm, or by appointment

Course Location: Perkins 200
Course Meeting Time: TuTh 2:50-4:05pm
Course Web Page: http://www.uvm.edu/~rjgallag/math17-spring16.html
Recommended Text: Excursions in Modern Mathematics, 8th ed. by Peter Tannenbaum

In this course we’ll cover a variety of topics not typically seen in traditional math courses, including voting theory, financial mathematics, statistics, and graph theory. There will be an emphasis on developing these mathematical ideas to apply them to interesting problems and to model real-world situations. The goal: to learn some new math, think hard, and have some fun!

Office Hours and Help Sessions: You are highly encouraged to come to office hours if you have any questions related to the material; I want to make sure that you understand the material. If you are not able to make office hours, you are welcome to make an appointment with me.

The math department runs math help sessions Monday through Thursday 5-7pm in Votey 254. I have shifts at the help sessions from 5-6pm on Tuesdays and Thursdays. You may come see me for help during those times, though I may have to help students in other math classes as well.

Grading Your grade will be based upon participation, quizzes, and 3 exams. Quizzes and exams from last semester can be found on my website.

- Participation: A portion of your grade will be determined by how much you engage in class and at office hours. There will also be opportunities for you to discuss the material with your peers and help them learn. Finally, there may be times that I ask the class to read an article related to the material and discuss in class or online.

- Quizzes: Quizzes will be held each Thursday at the beginning of class, except for weeks that we have an exam. You will be assigned homeworks to help prepare you for these quizzes, but these homeworks will not be collected. The homework assignments should prepare you for the quizzes, so it is highly recommended you do them. There are no makeup quizzes for any reasons, but the two lowest quiz grades will be dropped. If you know that you will not be in class for the quiz, you may try to arrange a time to meet before Thursday to take it early, but I cannot guarantee that I will be available.
• **Exams:** There will be 2 exams during the semester and 1 exam during the final exam period. The final exam is not cumulative. Make-up tests are possible if there is a serious reason and adequate notice has been given, but they should not be assumed.

As determined by the class collectively, we have:

15% Participation  
25% Quizzes  
60% Exams (20% each)

**Attendance:** I will be covering new topics each class, so it is expected that you attend class. You are responsible for learning the material if you miss class. When you are in class, please refrain from talking and using cell phones. The texts and snapchats can wait. I intend for my classroom to be a safe space for students regardless of race, gender, sexuality, disability, etc. Use of hateful language or slurs will not be tolerated and will result in immediate dismissal from class.

**Accommodations:** If you have a disability or special need, then I am happy to work with you to make sure you get the accommodations that you need. Please make sure you get a letter from ACCESS so that I can be aware of the proper accomodations. If you are a student athlete, please notify me *as soon as possible* of any scheduling conflicts so that we may arrange accomodations as needed.

**Academic Integrity:** Cheating and plagiarizing will not be tolerated. Students caught cheating on a quiz or exam will automatically receive a failing grade. There are serious consequences under the Code of Academic Integrity for academic dishonesty and I will pursue them if necessary.

**Course Outline:** I reserve the right to change the schedule of the course at any time. Exam dates will be announced during the course.

Chapter 1: Voting Methods  
Chapter 2: Weighted Voting Methods  
Chapter 4: Apportionment  
Chapter 3: Fair Division  

**Exam 1**  
Chapter 10: Finance  
Chapter 14: Collecting Statistical Data  
Chapter 15: Descriptive Statistics  
Chapter 17: Normal Distributions  

**Exam 2**  
Chapter 5: Getting Around  
Chapter 6: Touring  
Chapter 7: Networks  

**Exam 3** (May 10, 1:30-4:15pm)