MATH 017: APPLICATIONS OF MODERN MATHEMATICS
COURSE SYLLABUS FALL 2012

Instructor: Eric Clark

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Office: Farrell Hall 2nd Floor (Trinity Campus)

Office Hours: MWF: 11am – 12pm, or by appointment

Text: Excursions in Modern Mathematics 7th Edition, author – Peter Tannenbaum

Class Coordinates: MWF 9:35am – 10:25am Votey Room 207

Course Description: In this course you will explore how basic mathematics is used in many different applications in real life. Topics include finding the winner in an election (voting theory), dividing an estate (fair division), compound interest and annuities (financial math), probability and statistics, and finding the shortest route to deliver flowers (graph theory)

Grading Breakdown:

There will be (approximately weekly) homework assignments and quizzes. Homework will be assigned but not collected. The quizzes are composed of vocabulary and direct or slight manipulation of assigned homework problems (so do your homework). The rest of the grading breakdown is given below:

40% Homework/Quizzes

40% Exams: 2 exams, approximately the first weeks of October and November

20% Final Exam: 12/14/2012 01:30 - 04:15 PM

At least 2 of your lowest quiz grades will be dropped. If you are absent the day of a quiz for legitimate reasons, email me the morning before class and we'll schedule a make-up. If this policy is abused I will retract my willingness to allow make-ups. Please make a serious attempt to attend all exam dates.

Course Topics (time dependent)

Chapter 1: Voting Methods
Chapter 2: Weighted Voting Systems
Chapter 3: Fair Division
Chapter 4: Apportionment
Chapter 10: Finance
Chapter 12: Fractal Geometry
Chapter 13: Collecting Statistical Data
Chapter 14: Descriptive Statistics
Chapter 16: Normal Distributions
Chapter 5: Getting Around
Chapter 6: Touring