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|  | **MATH 11008 - 603: Explorations in Modern Math - CRN 22382** Fall 2014 Start: 08/25/2014 Last day to add/drop: 09/07/2014  End : 12/07/2014 Last day to withdraw: 11/02/2014Lectures 9:00-9:50: **MW: 306 Main Hall F: 315 Main Hall**  |
| Instructor | Dr. Tanya H. Vulanovic (**professor Tanya**)   e-mail: thrubik@kent.edu office: 133D Main Hall phone: 330.244.3581I’ll do my best to respond to e-mails within 24 hours. If I do not reply please re-send the message. Office hours: MW 10-11am; other times by appointment. |
| Prerequisites | **Minimum C (2.0) grade in MATH 10007 or MATH 00023; or** **30-39 on ALEKS level two assessment, or 45-54 on ALEKS singular assessment.** |
| Text  | Tannenbaum, P. (2014). Excursions in modern mathematics, 8th edition. Boston: Pearson.Hard cover: ISBN 9780321825735. Second hand or rented text, or e-book are acceptable. A loose-leafed KSU edition (ISBN 9781269214490) can be purchased directly from [Pearson](http://vig.pearsoned.com/store/product/1%2C1207%2Cstore-23640_isbn-1269214497%2C00.html). |
| Course outline | Topics from various branches of mathematics will be chosen to introduce the student to the varieties of ways in which mathematics affects everyday life. Another important aspect of the course is writing math formulas in the software such as Word or Excel.Chapters that will be covered are (some sections will be skipped): * Chapter 10 Financial Mathematics
* Chapter 14 Censuses, Surveys, Polls, and Studies
* Chapter 15 Graphs, Charts, and Numbers
* Chapter 16 Probabilities, Odds, and Expectations
* Chapter 17 The Mathematics of Normality
* Chapter 11 The Mathematics of Symmetry
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| Copyright and online access  | All **course resources contain copyrighted** **material** and are intended only for the students who take the course. **Make sure not to share them outside of class to avoid copyright violations**. This syllabus and other course materials are accessible online through Blackboard Learn at <https://learn.kent.edu/>  |
| Class requirements | **Student s must have access to the Internet, spreadsheet, and editor**. You will also need 2 rulers.You may download your **free copy of MS Office at**: [support.kent.edu/office](http://bbcrm.edusupportcenter.com/link/portal/8096/8210/Article/10904/Microsoft-Student-Advantage-FREE-OFFICE) Basic calculators on devices with no internet access will be allowed on tests.  |
| Attendance policy | Students are expected to attend classes, complete assignments on time, and to communicate any problems or questions to the instructor right away. If you miss a test and I do not hear from you for a whole week after that, you will receive an SF class grade (stop attending - F). |

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| **Class Grade - Grading Scale**Your class grade will be determined from the grading scale below. Tests, homework, and bonus points add up to 103. |
| Percent | 93-100% | 90-92.9 | 87-89.9% | 83-86.9% | 80-82.9% | 77-79.9% | 73-76.9% | 70-72.9% | 67-69.9% | 60-66.9% | 0-59.9% |
| Grade | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | F |

**Exams.** There will be four tests for a total of 80 points. See daily schedule for days and points. All tests will comprehensive except for the final. At least one half of each test will contain homework problems so if you do the homework, you will find number of problems on the test very familiar. Make-ups are possible, but with a valid excuse and on exceptional basis (for this reason, under normal circumstances, no more than two make-ups will be allowed during the term). If you have to miss a test, you have to let me know so that make-up can be arranged. Make-up may be different from the original test.

**Online assignments.** In addition to the 80 test points, it will be possible to earn up to 20 points for 4 online assignments (5 points each). Do your best to collect majority of these points because 1 or 2 points often make a difference in grade and sometimes even the difference between pass and fail.

**Bonus points**. You may earn up to 3 bonus points in this class: one point for the introduction in Learn and two points for presenting homework solutions or doing other assignment in the class.

**DISCLAIMER.** This syllabus is tentative and it may somewhat change. All changes will be announced in class and posted online.

**HOW TO SUCCEED IN THIS CLASS.** Success is a relative thing. For some of you, anything less than an A will be a failure; for others, passing with a D will be a success. Your success depends on your math background and on the amount of time and effort you put into this class (attend the classes and do the homework). If you discover that your math background is weak in some math area, you will have to find time to improve it. Let me know as soon you realize this and we’ll come up with remedial plan. If after attending classes and doing the homework you still do not master the material, be proactive and use all the help you can get before the test. My office hours and tutoring center are resources intended for that purpose.

**TUTORING.**  Free, walk-in math tutoring is available in the Academic Success Center in the lower level of Campus Center.  Hours are at: [http://www.stark.kent.edu/student/resources/testing.cfm.](http://www.stark.kent.edu/student/resources/testing.cfm)

**LEARNING OUTCOMES:**  **11008 Explorations in Modern Mathematics (3) Learning Outcomes**

**Knowledge:** The student should discover mathematical ideas that affect everyday life by comparing various

voting methods in mathematics of social choice and demonstrating an understanding of mathematical concepts appearing in nature and management science.

**Comprehension:** Should understand the notions of growth and symmetry. Should get acquainted with the mathematics of social choice and statistics.

**Application:** The main and most important application is to solve many different problems related to the subject.

**Analysis:** Should be able to analyze the odds, the chances and probabilities of events.

**Synthesis:** Should continue developing abstract thinking.

**Evaluation:** Should complete homeworks, pass midterm tests and a final exam.

**Class Activities:** To solve problems in class and discuss theorems.

**Out of class Activities:** To submit homework assignments.

**Academic Honesty:** Use of the intellectual property of others without attributing it to them is considered a serious academic offense.  Cheating or plagiarism will result in a failing grade for the work or for the entire course.  Repeat offenses result in dismissal from the University. University guidelines require that all infractions be reported to the Student Conduct Officer on our campus.

**Students with Disabilities*:*** University policy 3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-244-5047 or visit [*http://stark.kent.edu/student/resources/accessibility.cfm*](http://stark.kent.edu/student/resources/accessibility.cfm)  for more information on registration procedures).

**Classes Canceled – Campus Closings:** Announcements of class cancellations and/or campus closings will be made on the campus home page.  In the case of an emergency, weather-related or otherwise, please check the web page at stark.kent.edu for information on the buildings and times of the closing. While information may be broadcast by radio and television, this should be confirmed by the web page, which is the official announcement of the campus and which will be the information used to determine issues related to student attendance, rescheduling of tests, and other concerns.

**Course Withdrawal**: If you are considering withdrawing from this course, please consult with a staff member in the Student Services Office, 134 Main Hall. Withdrawal from a course can affect financial aid, student status, or progress within your major. For withdrawal deadlines, please refer to <http://www.kent.edu/registrar/calendars/stu_important_fall.cfm>

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| **Tentative Daily Schedule** |
| **Month** & **week** | **Monday** | **Wednesday** | **Friday** |
| August I | 25 Chapter 10 | 27 Chapter 10 | 29 Chapter 10 |
| September II  | * 1  ***No class***
 |  3 Chapter 10 |  5 Chapter 10 |
|  III |  8 Chapter 10 **(HW1 )** | 10 Chapter 14 | 12 Chapter 14 |
|  IV | 15 Chapter 14 | 17 Review  | 19 **Test 1 (20 points)** |
|  V | 22 Chapter 14 | 24 Chapter 14 | 26 Chapter 14 |
| October VI  | 29 Chapter 15 |  1 Chapter 15 |  3 Chapter 15 |
|  VII |  6 Chapter 15  **(HW 2)** |  8 Chapter 15 |  10 Chapter 15 |
|  VIII  | 13 Chapter 15 | 15 Review |  17 **Test 2 (25 points)** |
|  IX | 20 Chapter 16 | 22 Chapter 16 | 24 Chapter 16 |
|  X | 27 Chapter 16 | 29 Chapter 16 | 31 Chapter 16 |
| November XI |  3 Chapter 17 **(HW 3)** |  5 Chapter 17 |  7 Chapter 17 |
|  XII | 10 Chapter 17 | 12 Chapter 17 | 14 Chapter 17 |
|  XIII | 17 Chapter 17 **(HW 4)** | 19 Review  | 21 **Test 3 (25 points)** |
|  XIV | 24 Chapter 11 | 26 Chapter 11 | 28 ***No class*** |
| December XV |  1 Chapter 11 |  3 Chapter 11 |  5 Chapter 11 |
|  (finals) XVI |  8  | 10 **8am Final (10 points)** | 12 |