Math 1311: Thinking Mathematically  
Fall 2017

Professor: Dr. Sandra Kingan  
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Course Times and Location: MW 2:15 pm - 3:30 pm  
Course URL: https://sites.google.com/view/thinkingmathematically  
All course materials are free and will be posted online

Office Hours: MW 11:30 pm – 12:30 pm and 3:30 pm – 4:00 pm 2317b (Old) Ingersol or by appointment.

Course Description: Problem solving and applications of mathematical thinking in the real world and in the ideal world of mathematics. Elementary number theory, probability, geometry, and their applications. Number systems and the sizes of various infinite sets. Additional topics chosen from: elementary topology, discrete mathematics, chaos and fractals, probability. Satisfies Pathways Required Core Math and Quantitative Reasoning requirement. (Not open to students who are enrolled in or have completed CORC 1311, MATH 1001 or any mathematics course numbered 1201 or higher.)

Prerequisites: High school mathematics

Brooklyn College Common General Education Goals: The common general education goals reflect the knowledge, understanding, judgment, and skills that a person needs to make major contributions to society, to assume tasks of leadership, and to continue a life of learning and reflection. This course supports all these goals and especially the highlighted goals 1, 5, 6, 10.

1. Be able to think critically and creatively, to reason logically, to reason quantitatively, and to express their thoughts orally and in writing with clarity and precision;  
2. Be able to make sound ethical judgments;  
3. Understand the arts, histories and cultures of the past as a foundation for those of the present;  
4. Understand the development and workings of modern societies in an interdependent world;  
5. Acquire the tools that are required to understand and respect the natural universe;  
6. Understand what knowledge is and how it is acquired by the use of differing methods in different disciplines;  
7. Be able to integrate knowledge from diverse sources;  
8. Appreciate individual and social diversity and understand the necessity for tolerance;  
9. Be informed and responsible citizens of the world;  
10. Establish a foundation for life-long learning and the potential for leadership.

Evaluation: Your understanding of the course material will be evaluated through daily collaborative quizzes (10%), two exams (50%) and a final exam (40%).

Exams: You may not give nor receive any help during in-class tests and the final. Graphic calculators and smart devices are not allowed for in-class exams. You may use only a scientific calculator.

Make-ups: There are no make-ups for collaborative quizzes, but you can drop your lowest 3 scores. Make-up exams will be given only in extreme cases of difficulty with proper documentation. To qualify for a make-up test you must write a letter explaining clearly why you cannot (or could not) attend the test and support the reason with documentation. For example, a medical reason requires a doctor's note as supporting documentation.

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**Attendance:** Attendance is mandatory subject to state law (pg. 65, *Undergraduate Bulletin*). College policy dictates that attendance must be taken at every class meeting. This is a class that requires you to be present and work with your team. If you think that you will need to be absent a lot this semester (for example your work hours clash with this class) it would be wise to take a different class.

**Study Expectations:** You are expected to do the weekly readings and assignments. As a general rule of thumb for any math course you should spend at least two hours at home for each hour of lecture. You can expect this course to take 3 hours of your time in class and 6 hours of your time outside class for a total of 9 hours per week. Please budget your time accordingly.

**Winter Weather Policy:** Check your email accounts frequently during bad weather. Homework and exams that are due on a day the college is closed will automatically be due on the next class day.

**Disruptive Behavior:** Examples of disruptive behavior include anything that prevents the instructor from teaching. This may include constantly talking with classmates and drowning out the instructor, arguing with the instructor over grades and other private matters in the classroom, disrupting exams by complaining about the hard exam, protesting political and social causes, chanting slogans etc. Please be aware there is no Principal to send a disruptive student to and no harmless Detention Center as in high school. Campus Security is the only office that can handle disruptive students.

**Disability Support:** In order to receive disability-related academic accommodations you must first be registered with the Center for Student Disability Services. If you have a documented disability or suspect you may have a disability you should set up an appointment with the Director of the Center for Student Disability Services at 718-951-5538. If you have already registered with the Center for Student Disability Services please provide me with the course accommodation form so we may discuss your specific accommodation.

**Academic Integrity:** The faculty and administration of Brooklyn College support an environment free from cheating and plagiarism. Each student is responsible for being aware of what constitutes cheating and plagiarism and for avoiding both. The complete text of the CUNY Academic Integrity Policy and the Brooklyn College procedure for implementing that policy can be found at [http://www.brooklyn.cuny.edu/bc/policies](http://www.brooklyn.cuny.edu/bc/policies). If a faculty member suspects a violation of academic integrity and, upon investigation, confirms that violation, or if the student admits the violation, the faculty member must report the violation.

**Fall 2017 Important dates for Mon/Wed classes:**
- Aug 28: First day of MW classes
- Sep 4: Labor Day Holiday
- Sep 14: Last day to drop a course without a grade
- Sep 20: Jewish New Year Holiday
- Nov 10: Last day to withdraw with a W grade
- Dec 11: Last Day of Classes
- Dec 14-20: Final Exams

**Fall 2017 Important dates for this class:**
- Sep 27: Exam 1
- Nov 8: Exam 2

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