***COURSE****:* MATH 1332 – Contemporary Mathematics

***POSSIBLE TEXTBOOKS****: Math in Society, 2nd edition* by David Lipman – available from: [*http://www.opentextbookstore.com/mathinsociety/*](http://www.opentextbookstore.com/mathinsociety/)or *Topics in Contemporary Mathematics 9th edition* by Bello Britton Kaul

***PREREQUISITE****:* College Ready TSI status in Mathematics Courses or College Ready for Non-Algebra Intensive Mathematics Courses. Successful completion of any of the developmental mathematics initiatives (MATH 0290, MATH 0320, or MATH 0330) will allow one to enter the course.

***INSTRUCTOR:*** XXX, **E-Mail:** XXX, ***OFFICE:***MAGC XXX, ***TELEPHONE:***665-XXX   
***OFFICE HOURS:*** *XXX*

**TOPICS**: Topics include sets, financial mathematics, mathematical logic, graph theory, statistics, and probability with an emphasis on problem solving and critical thinking. Additional topics may include voting and apportionment methods.

**CALCULATOR**: A calculator, which computes square roots and exponentials, is required. Efficient use of the calculator will be emphasized throughout the course.

**HOMEWORK/QUIZZES**: Homework and/or quizzes or other types of formative assessments will be given during the semester. These assessments form a critical component of the learning process in this course.

**TESTS**: There will be three tests and a mandatory, comprehensive final exam. There are no make-up tests for any reason. Anyone missing a test receives a grade of zero.

**LETTER GRADE**: The course grade will be assigned according to the following scale:

A(90-100%), B(80-89%), C(70-79%), D(60-69%), F(below 60%).

***SUGGESTION****:*The following are ways to get free help outside of class:

1. Contact your instructor during their office hours or make appointment.
2. Get free Math tutoring from Learning Assistance Center (LAC) building in Room 114 phone # 665-2532 (Edinburg campus)
3. Get free Math tutoring from Math Lab in Math building in rooms MAGC 3.510 & MAGC 3.530 (Edinburg campus)
4. Visit the Math Tutoring Lab at SETB 1.408 (Brownsville campus)
5. Visit the Math and Natural Sciences Learning Center at Cavalry Hall; Phone number: (956) 882-7058, (956) 882-8208 (Brownsville Campus)

**Contemporary Mathematics Student Learning Objectives**

After completing this course students will be able to

1. Apply set notation and perform set operations;
2. Visualize and perform set operations using Venn diagrams and analyze statistical surveys;
3. Solve financial mathematics problems;
4. Use mathematical logic and Euler diagrams to test the validity of arguments;
5. Solve graph theoretical problems with applications to real-life problems;  and
6. Represent given statistical data with tables and graphs as well as compute measures of central tendency and dispersion.

For topics including Voting and Apportionment Methods, the following learning objectives are applicable:

1. Understand how different voting systems work and what their limitations are;
2. Understand how different apportionment methods work and know what their limitations are;

***NEW UTRGV Core Objectives*** Students finishing a core curriculum course will be able to demonstrate the following objectives:

* ***CRITICAL THINKING (CT)*** is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion. This definition meets the THECB’s direction that critical thinking includes creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information; and is aligned with the UTRGV’s SLO for critical thinking skills.   
    
  Students will learn to apply complex mathematical ideas to solving problems occurring in the functioning of our modern democratic society such as apportionment. Students will be also learn symbolic logic techniques that can be used for the critical analysis of a wide variety of language and problem constructs.  
     
  Student learning objectives 1, 3, 6, and 7 align with this core objective. They will be assessed through specific questions on the tests used in the course.
* ***COMMUNICATION SKILLS (COM)*** include the development, expression, and revision of ideas through the effective use of language (writing, reading, speaking, and listening) across a variety of forums. Communication involves learning to work in many genres and styles while using different technologies, can result in mixing texts, data, and/or images, and develops through diverse experiences across the curriculum. This definition meets the THECB’s direction that communication skills include effective written, oral, and visual communication; and is aligned with UTRGV’s SLO for communication skills.

A strong focus of this course is to develop in students the ability to discuss problems from modern society with a mathematical connection with fluency to non-experts. For almost all topics the process of the solution is as or more important than arriving at the solution itself. Furthermore, a number of topics will explore the contrasts and paradoxes occurring because of the wide variety of meanings that can be attaching to words in language.   
  
Student assessments (both summative and formative) used for student learning objectives 1, 2, 3, 4, and 5 will address the development of students’ communications skills in the course.

* ***EMPIRICAL AND QUANTITATIVE SKILLS (EQS),*** which involve numeracy or quantitative reasoning, include competency in working with numerical data and mathematical reasoning. Individuals with strong mathematical skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They interpret data and results and can create conjectures and arguments supported by quantitative evidence and/or mathematical reasoning, which they can clearly communicate in a variety of formats (using words, tables, graphs, and/or equations as appropriate). This definition meets the THECB’s direction that empirical and quantitative skills include applications of scientific and mathematical concepts; and is aligned with UTRGV’s SLO for empirical and quantitative skills.  
    
  Many problems in the course will be reduced to a arithmetic computation that must be completed to arrive at the correct answer. Topics such as apportionment rely on the issues arising in using rounding in integer division, and other problems in the class will explore similar problems that appear on their surface to be trivial mathematical facts but lead to interesting problems when applied to the real world.   
    
  The course stronger centers on the empirical and quantitative skills objective, which permeates almost every topic included in the course and course objectives. These will be assessed through specific questions on the tests used in the course.

**UTRGV Policy Statements**

**Students with Disabilities**

If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. **Brownsville Campus**: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. **Edinburg Campus:** Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

**Mandatory Course Evaluation Period**

Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Online evaluations will be available Nov. 18 – Dec. 9, 2015. Students who complete their evaluations will have priority access to their grades.

**Attendance**

Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

**Scholastic Integrity**

As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

**Sexual Harassment, Discrimination, and Violence**

In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

**Course Drops**

According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.

**Electronic Communication Policy**

The university policy requires all electronic communication between the University and students be conducted through the official University supplied systems; namely UTRGV account for email or Blackboard for course specific correspondence. Therefore, please use your UTRGV assigned e-mail or Blackboard account for all future correspondence with UTRGV faculty and staff.