MATH 440 Section 001 Instructor: Dr. Charles Dorsett Office hours: 9 – 10 MTWR, and by appointment BA 244 1 – 4:50 MW Office: Bin-318 Office telephone: 886-5955

Textbook: None. The class will be taught using a "modified Texas Method".

Prerequisites: Math 331 and one of Math 334 or Math 437

Topics to be covered: Within this class, topics studied in calculus such as open sets, closed sets, continuity, convergence, and compactness will be generalized and further studied giving each student deeper and better understanding of the mathematics they have studied and preparing them for future mathematical studies.

Student Learning Outcomes: At the end of the class,

- 1. The successful student will know and be able to successfully use the topological operators.
- 2. The student will have experience and success in theorem proving and be able to exhibit their theorem proving abilities.
- 3. The students will have studied separation axioms and be able to exhibit and communicate their knowledge of separation axioms.

Undergraduate Requirements:

- 1. As in all introductory topology classes taught using a variation of the Texas Method of teaching, the students will actively participate in the class solving problems, giving examples, and proving theorems as expected in an introductory class.
- 2. The students will exhibit growth and maturity in problem solving and theorem proving preparing themselves for continued study of mathematics.
- 3. The students will sufficiently exhibit their knowledge and understanding of topics taught in an introductory, undergraduate topology class on two tests.
- 4. Undergraduate students will collaborate with graduate students to discuss topological definition, properties, theorems, and separation axioms; and develop interest in research and pursuing graduate study at A&M-Commerce.

Grading policy: In the class 80% of the grade will be determined by your classroom participation. During the class you will be given hand-outs containing definitions, problems, and theorems for which you are to provide solutions and proofs. The expectation is that you will present your solutions to the problems and proofs of the theorems during class time in a timely fashion. There will be two tests in the class each worth 10%.

ADA Statement: The Americans with Disabilities Act (ADA) is a Federal antidiscrimination statue that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact: Office of Student Disability Resources and Services Texas A&M University-Commerce GEE Library – Room 132 Phone: (903) 886 – 5150 or (903) 886 – 5835 Fax: (903) 468 – 8148 StudentDisabilityServices@tamuc.edu

Student Conduct: Attendance and participation in classroom activities are expected. According to the Student's Guide Handbook, Policies and Procedures, Conduct, all students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.

Let's all work hard and have a happy, productive semester.