Math 437.001 – Elementary Number Theory
TR 12:30-1:45 p.m.  Binnion 302
COURSE SYLLABUS: Spring 2015

Instructor: Stuart Anderson
Office Location: Binnion-321
Office Hours: MW: 11:00 – Noon, 3:00-4:30 p.m.
TR: 2:00 – 3:00 p.m.
Others, by appointment.

If you need to see me, do not hesitate to schedule an appointment. If you are having difficulty in the course, please seek help early. I would be glad to help you any time I am available. Occasionally, I will be out of my office for meetings or other obligations during scheduled office hours. I will try to let you know of these times early or will leave a note of explanation. Otherwise, you are welcome in my office.

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University Email Address: stuart.anderson@tamuc.edu

COURSE INFORMATION

Textbook:
Tentatively, chapters 1, 3, 4, 6, 7, 9, and 11 of the text will be covered, as well as parts of 5 and 8.

Course Description
Mathematical induction, divisibility, prime numbers, congruencies, factorization, arithmetic functions, quadratic reciprocity, primitive roots, diophantine equations. Prerequisite: Math 331.

Student Learning Outcomes
A student who passes this course will demonstrate through solving problems and proving theorems the ability to apply the topics covered to computational and theoretical problems. The student will have demonstrated problem solving ability for topics that include but are not limited to primes, divisibility, congruences, and quadratic reciprocity information. The student will be eligible to enroll in other upper division mathematics courses.
CORE OBJECTIVES:
1) Students will be able to analyze, evaluate, or solve problems when given a set of circumstances or data. This common core objective will be assessed in the tests and final exam.

2) In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure. This common core objective will be assessed using class activities with class discussion of primes, congruences, and quadratic residues.

3) Students will be able understand and utilize mathematical functions and empirical principles and processes. This common core objective will be assessed using class activities, homework problems, tests and a final exam.

GRADING

Tests: There will be two (possibly three) tests. Be careful to invest ample time daily in the course so that you will be prepared for each examination. Tests will count approximately 60% of your final grade.

Homework: Homework will be assigned almost every day. Always try to solve all assigned problems. You can expect the tests to contain problems similar to those assigned as homework, as well as a few problems that will be different. Selected problems will be collected and graded on some days. Also, an occasional quiz may be given from time to time covering the assignment for that day. There will be opportunities for you to present problems at the board. The homework, quizzes and board work may count approximately 10% of your final grade.

Final: The final exam will be given on Thursday, May 14, 2015 at 10:30 a.m. The final exam will count at least 30% of your final grade.

Grading Scale:
A: 90-100
B: 80-89
C: 70-79
D: 60-69
F: Below 60

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures

It is expected that you will be regular and punctual in attendance. Attendance will be noted daily.
No late tests will be given. If you miss a test, the final will be used to replace that score. No late homework will be graded and daily quizzes will not be repeated if missed. However, a percentage of the homework and quiz grades will be dropped to cover days when an absence is unavoidable.

Please make certain that any cell phone in your possession never rings in class and is never used during class; do not use any electronic device (other than a stand-alone scientific calculator) during any test; do not leave class early unless prior arrangements have been made with the instructor; do not excuse yourself from class and then return. Failure to comply with these policies can result in a lowering of your grade or expulsion from the course.

Cheating of any kind will result in an F in the course.

It is my hope that no one will want to drop this course. Please keep in mind that the total number of courses dropped for academic reasons during undergraduate studies is limited to six. The last day to drop the course is Thursday, April ?, 2015.

**University Specific Procedures**

**ADA Statement**

**Students with Disabilities**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute 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**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Code of Student Conduct from Student Guide Handbook).

**COURSE OUTLINE / CALENDAR**

Week 1 – Chapter 1.
Week 2 – Chapter 1.
Week 3 – Chapter 2.
Week 4 – Chapter 2
Week 5 – Chapter 3 and Test 1.
Week 6 – Chapter 3.
Week 7 – Chapter 4.
Week 8 – Chapter 4.
Week 9 – Chapters 5 and 6.
Week 10 – Chapter 6.
Week 11 – Chapter 7 and Test 2
Week 12 – Chapters 8 and 9.
Week 13 – Chapter 11.
Week 14 – Chapter 11.
Week 15 – Chapter 11 and review.
Final Exam – May 14. (It is possible that some revision of the above dates and material may occur as the semester progresses.)