

MATH 437, Elementary Number Theory

Spring 2013

The class meets TR, 12:30 – 1:45 p.m. in Bin-302.

Instructor: Stuart Anderson

Office: Binnion-321 Phone: 903-886-5957

e-mail: Stuart_Anderson@tamu-commerce.edu

Departmental Fax: 903-886-5945.

Text: ELEMENTARY NUMBER THEORY and its Applications, 6th Edition, by Kenneth H. Rosen. 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.

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 9, 2013 at 10:30 a.m. The final exam will count at least 30% of your final grade.

Make-up work: 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.

Grading Scale:

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

Dropping 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 Friday, March 29, 2013.

Office Hours: My office is Binnion-321. 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 will plan to be in my office at the following times:

MW: 11:00 – 11:50 a.m.,
TR: 3:30 – 5:00 p.m.
Others, by appointment.

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.

Attendance: It is expected that you will be regular and punctual in attendance.

Course Calendar: Test 1 – March 7.
Test 2 – April 23.
Test 3 – TBA.
Final Exam – May 9. (It is possible that some revision of the test dates may occur as the semester progresses.)

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Student's Guide Handbook, Policies and Procedures, Conduct) Please make certain that any cell phone in your possession never rings in class and is never used during class; 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.

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