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Math 427 Syllabus

Sections 200 and 500: 12:40 – 1:30, BLOC 160

Office Hours: TBA

Course description

This is an introductory course in number theory covering: prime and composite integers; Euclidean algorithm; modular arithmetic; Chinese remainder theorem; unique factorization; quadratic reciprocity; Riemann zeta function; representation of numbers as a sum of squares; quadratic forms; Ford circles.

Prerequisites

MATH 300; MATH 323, or MATH 304.

Textbook:

The required textbook is *An Illustrated Theory of Numbers*, by Martin Weissman, published by the AMS, ISBN 978-1470463717

Homework

There will be regular homework assignments, turned in during class, and announced by regular emails.

Exams

There will be two midterms and a final on the following dates:

1. Wednesday, February 15.
2. Wednesday, April 5.
3. Friday, May 5th, 10:30 - 12:30. It is cumulative, but will mostly cover material presented in class after the second midterm.

Grading Policy

The grades will be weighted by:

15% homework, 25% midterm 1, 25% midterm 2, 35% final

The grading will be:

A: 90% or higher

B: 80% – 89.99%

C: 70% – 79.99%

D: 60% – 69.99%

F: 0% – 59.99%

Attendance and Make-up Policies:

Please read: <http://student-rules.tamu.edu/rule07>

I do not accept late homework. When calculating your homework score, I will drop the lowest score. The purpose of this policy is to give you leeway in this policy. You may still turn in the homework late, within a week of the original due-date, in order to receive feedback from the grader.

Honors Section:

This course will meet the enhanced learning objectives of an honors course by the use of richer homework assignments

Electronic devices and calculators:

Electronic devices can only be used for educational purposes that relate to activities done in class. See your instructor if you have other circumstances where a device is needed daily for non-class related items (i.e., medical, first responder, etc.).

Calculators or other electronic devices will not be allowed on exams.

University policies

Americans with Disabilities Act (ADA):

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 believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit <http://disability.tamu.edu>

Academic Integrity:

For additional information please visit: <http://aggiehonor.tamu.edu>

"An Aggie does not lie, cheat, or steal, or tolerate those who do."

Title IX and Statement on Limits to Confidentiality

Texas A&M University and the College of Science are committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws provide guidance for achieving such an environment. Although class materials are generally considered confidential pursuant to student record policies and laws, University employees — including instructors — cannot maintain confidentiality when it conflicts with their responsibility to report certain issues that jeopardize the health and safety of our community. As the instructor, I must report (per Texas A&M System Regulation 08.01.01) the following information to other University offices if you share it with me, even if you do not want the disclosed information to be shared:

- Allegations of sexual assault, sexual discrimination, or sexual harassment when they involve TAMU students, faculty, or staff, or third parties visiting campus.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In many cases, it will be your decision whether or not you wish to speak with that individual. If you would like to talk about these events in a more confidential setting, you are encouraged to make an appointment with the Student Counseling Service (<http://scs.tamu.edu>)

Students and faculty can report non-emergency behavior that causes them to be concerned at <http://tellsomebody.tamu.edu>

COVID-19 statement

To help protect Aggieland and stop the spread of COVID-19, Texas A&M University urges students to be vaccinated and to wear masks in classrooms and all other academic facilities on campus, including labs. Doing so exemplifies the Aggie Core

Values of respect, leadership, integrity, and selfless service by putting community concerns above individual preferences. COVID-19 vaccines and masking — regardless of vaccination status — have been shown to be safe and effective at reducing spread to others, infection, hospitalization, and death.