Math 301, Fall 2021
Number Theory
Section 001, CRN 70721

Time:	MW 3:00 - 4:15
Place:	Innovation Hall, Room 333
Instructor:	Walter Morris
Office:	Exploratory Hall, Room 4207
Phone:	703-993-1481
Office Hours:	MW 11:00-11:45, 1:30-2:45
e-mail:	wmorris@gmu.edu

Math 301 is a course in Number Theory. The students will learn about topics such as prime numbers, congruences, multiplicative functions, and a litle bit of cryptography. The prerequisite for the course is 6 hours of mathematics.

The text for the course is **Elementary Number Theory**, sixth edition, by Kenneth H. Rosen, published by Pearson-Addison/Wesley, 2010. (ISBN 9780321500311). We will cover most of chapters 1 - 8. See the Course Calendar in the Syllabus section for details. I will not expect the students to have had Math 290 or any other experience with mathematical proofs before this course. The course will teach the students what they need to know about writing proofs. Some of the exam questions will test the student's understanding of some classical proofs of theorems such as Fermat's Little Theorem or Wilson's Theorem.

The class will meet in-person MW from 3 to 4:15 in Innovation Hall, Room 333. In these sessions, we will discuss the materials in the assigned reading. Questions and other kinds of student input are encouraged in the classroom sessions.

There will be two in-class tests, which we will tentatively schedule for September 29 and November 10. Each of the classtime tests determines 25% of the final grade.

There will be class on October 12, instead of on October 11.

The final exam is cumulative. It will be given on **December 13, at 1:30 PM.** 30% of the final grade is determined by the final exam.

10% of the grade comes from class participation. On each of the non-test days, you will turn in a sheet with some worked problems to document the participation. I will drop the lowest 7 participation grades.

Homework contributes 10% of the final grade. I drop the lowest homework grade.

The tests will be closed book. The Mason Honor Code applies. You may not receive help from any person or internet site on quizzes or tests. If you receive help from another person on homework, please state who or what site helped you.

Please follow the university policies on masking and filling out the daily form for Covid-19. Here is a link to the information page.

There is a discussion board in Blackboard site, which I may use from time to time. Please be respectful and mind the rules of Netiquette. You must carefully craft your communication in the online classroom to avoid misinterpretation.

If you are a student with a disability and you need academic accommodations, please notify me and contact the Office of Disability Services (ODS) at (703) 993-2474. All academic accommodations must be arranged through the ODS.

I check my e-mail often. Feel free to email me with questions. Be certain that you understand all of the homework assigned and all of the assigned reading, and that you ask questions in or out of class in order to clear up any problems you might have.

Other links:

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Counseling and Psychological Services