

# **MATH-UA.248.003 THEORY OF NUMBERS**

Fall 2016, Mon, Wed 3:30pm-4:45pm, WWH 905

Office hours : Tue, 4:30pm-6:30pm

Reference: Joseph H. Silverman, A friendly introduction to Number Theory

Topics :

1. divisibility of integers
2. greatest common divisor
3. unique factorization
4. Pythagorean triples
5. Diophantine equations
6. congruences
7. prime numbers
8. Fermat's little theorem
9. arithmetic functions
10. Chinese remainder theorem
11. Mersenne primes
12. quadratic reciprocity.

Midterm: Nov, 7

Grades: 0.5 Final+0.3 Midterm+0.2 Homework