Introduction to Number Theory

Math 4400, Fall 2018

University of Utah

Christopher Hacon

Class: Mon, Wed, Fri, 10:45–11:35, ST 208 Office hours: Mon, Wed 10:00-10:40, Fri 11:40-12:20 (in JWB 301)

Contact JWB 301, (801) 581-7429, hacon@math.utah.edu

Web-page http://www.math.utah.edu/~hacon/4400.html

Text Numbers, Groups and Cryptography by Gordan Savin, available from http://www.math.utah.edu/~savin/book18.pdf, and the optional text: A Friendly Introduction to Number Theory, by Joseph H. Silverman, ISBN 0321816196; an earlier edition may be used as well. "Optional" means that it makes good reading, if you feel the need or like the style.

Prerequisites "C" or better in Math 2270 or Math 2250.

- **Course description** An overview of algebraic number theory, that covers factorization and primes, modular arithmetic, quadratic residues, continued fractions, quadratic forms, and diophantine equations.
 - **Grading:** There will be weekly quizzes, and a comprehensive final examination. Quizzes will account for 60% of your grade (you will be allowed to drop your 3 lowest scores, however there will be no make up tests), and the final exam will make up the remaining 40%.

Labor day Holiday Monday, September 3; Fall break Sun-Sun, October 7–14; Thanksgiving break Thurs.-Sun., Nov. 22–25; Holiday recess Sat. Dec. 15 - Sun. Jan. 6

- Final: Friday, December 14, 2018 10:30 am 12:30 pm
- **Homepage:** You may refer to the course homepage for further information and future handouts. http://www.math.utah.edu/~ hacon/4400.html
- **ADA statement:** The American with Disabilities Act requires that reasonable accommodations be provided for students with physical, sensory, cognitive, systemic, learning, and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodations for the course.