Math 522: Number Theory
Spring 2021
Lecture Schedule

Instructor: Christopher O'Neill
E-mail: cdoneill@sdsu.edu

Below is a list of the topics we intend to cover, along with a rough schedule. Actual schedule is subject to change without notice. Last updated April 2, 2021.

Week	Topic	Chapters (Andrews)
$1/20 - 1/22$	Overview of Syllabus and Technology	
	Introduction to Number Theory	1-1
$1/25 - 1/29$	The Division Algorithm	2-1
	The Euclidean Algorithm	2-2
$2/1 - 2/5$	Prime Factorization	2-4
$2/8 - 2/12$	Modular Arithmetic (Week 1)	4-1, 4-2
$2/12$	*Rest and Relaxation Day: No Classes*	
*$2/15 - 2/19$	Modular Arithmetic (Week 2)	3-2, 3-3, 5-2
*$2/22 - 2/26$	Chinese Remainder Theorem	5-1, 5-3
*$3/1 - 3/5$	Arithmetic Functions	6-1, 6-2, 6-3
$3/8 - 3/12$	The Möbius Function	6-1, 6-3, 6-4
$3/8$	*Rest and Relaxation Day: No Classes*	
*$3/15 - 3/19$	Primitive Roots	7-1, 7-2
*$3/22 - 3/26$	Locating Large Primes	8-1, 8-2, 8-3
$3/29 - 4/2$	Catch-up Day	
$3/30$	*Rest and Relaxation Day: No Classes*	
$3/31$	*Cesar Chavez Day: No Classes*	
*$4/5 - 4/9$	Cyclotomic Polynomials	
$4/12 - 4/16$	Cryptography	
$4/15$	*Rest and Relaxation Day: No Classes*	
*$4/19 - 4/23$	Quadratic Residues	9-1, 9-2
*$4/26 - 4/30$	Quadratic Reciprocity	9-3, 9-4
*$5/3 - 5/6$	Review for Final Exam	
$5/7 - 5/13$	**Final Exam**	