

Math 148: Discrete Mathematics
Winter 2017
Lecture Schedule

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Below is a list of the topics we intend to cover, along with a rough time outline. Actual schedule is subject to change without notice. Last updated March 12th, 2017.

Week	Topic	Chapters
1/9 – 1/13	Introduction	
	Modular Arithmetic	13.1-13.3
1/16	<i>Martin Luther King Day: No Class</i>	
1/18 – 1/20	Groups, Rings and Fields	22.1-22.3
1/23 – 1/27	Polynomial Rings	22.4-22.5
	The Division Algorithm	22.6
	Factoring Polynomials	22.7-22.8
1/30 – 2/3	Finite Fields	23.1-23.2
	Primitive Elements of Finite Fields	23.4
2/6 – 2/10	The Fundamental Theorem of Finite Fields	23.3, 23.9
	Latin Squares and Finite Fields	23.5
	Geometry of Finite Fields	23.6
2/13 – 2/17	Introduction to Block Designs	11.6
	Review for Midterm Exam	
	Midterm Exam: Friday, February 17	
2/20	<i>Presidents Day: No Class</i>	
2/22 – 2/24	Constructing t -Designs	11.7
	t -Designs from Finite Fields	23.6
2/27 – 3/3	Finite Geometry and Block Designs	23.7
	t -Designs from Difference Sets	13.4
3/6 – 3/10	Error Correcting Codes	24.1
	Linear Error Correcting Codes	24.2-24.3
	Correcting Errors with Linear Codes	24.4
3/13 – 3/17	Cyclic Codes	24.5-24.6
	Hamming Codes	24.4
	Review for Final Exam	
3/20	Final Exam: Monday, March 20th	