Math 148: Discrete Mathematics
Winter 2018
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 December 18th, 2017.

Week	Topic	Chapters
1/8 – 1/12	Introduction	
	Modular Arithmetic	13.1-13.3
1/15	*Martin Luther King Day: No Class*	
1/17 – 1/19	Groups, Rings and Fields	22.1-22.3
1/22 – 1/26	Polynomial Rings	22.4-22.5
	The Division Algorithm	22.6
	Factoring Polynomials	22.7-22.8
1/29 – 2/2	Finite Fields	23.1-23.2
	Primitive Elements of Finite Fields	23.4
2/5 – 2/9	The Fundamental Theorem of Finite Fields	23.3, 23.9
	Latin Squares and Finite Fields	23.5
	Geometry of Finite Fields	23.6
2/12 – 2/16	Introduction to Block Designs	11.6
	Review for Midterm Exam	
	Midterm Exam: Friday, February 16	
2/19	*Presidents Day: No Class*	
2/21 – 2/23	Constructing t-Designs	11.7
	t-Designs from Finite Fields	23.6
2/26 – 3/2	Finite Geometry and Block Designs	23.7
	t-Designs from Difference Sets	13.4
3/5 – 3/9	Error Correcting Codes	24.1
	Linear Error Correcting Codes	24.2-24.3
	Correcting Errors with Linear Codes	24.4
3/12 – 3/16	Cyclic Codes	24.5-24.6
	Hamming Codes	24.4
	Review for Final Exam	
3/20	**Final Exam: Thursday, March 22**	