

Math 161 Suggested Syllabus

(Based on 29 lectures)

Text: Please contact Neil Donaldson and Jesse Wolfson

Lecture	Section	Topic
1	1.1 Intro: Thales + Pythagoras	
2	1.2 The Axiomatic Method	
3	1.3 Euclid's Axioms	
4	1.3 (cont)	
5	2.1 Hilbert's Axioms	
6	2.1 (cont)	
7	2.2 Measurement and Area	
8	2.3 Similar Triangles, 2.4 Circles	
9	3.1 Axes, 3.2 Vectors	
10	3.3 Angles, 3.4 Complex Numbers	
11	3.4 (cont), 3.5 Birkhoff's Axioms	
12	Review	
13	Midterm	
14	4 Euclidean Constructions	
15	(cont)	
16	(cont)	
17	(cont)	
18	6.1 Hyperbolic Geometry: History	
19	6.2 Poincaré Disk Model	
20	6.3 Parallels and Perpendiculars	
21	6.4 Omega Triangles	
22	6.5 Area	
23	6.6 Isometries	
24	7.1 Fractals	
25	7.2 Self-similarity	
26	7.3 Contraction Mappings	
27	7.4 Dimension revisited	
28	Review	
29		