

DATE	HOLMGREN		TOPIC
M 1.17			Introduction to dynamics: Newton's method
W 1.19	pp. 9-11, 16-17		Preliminary material: functions
F 1.21	pp. 21-27, 12-16		Preliminary material: topology of \mathbb{R}
M 1.24	pp. 1-6, 31-37		Periodic points and stable sets
W 1.26			Introduction to <i>Mathematica</i> (Class meets in SC 256)
F 1.28			More with <i>Mathematica</i> (Class meets in SC 256)
M 1.31			More with <i>Mathematica</i> (Class meets in SC 256)
W 2.2		HW 1 due	More with <i>Mathematica</i> (Class meets in SC 256)
F 2.4	pp. 47-50		(P) Attracting and repelling cycles
M 2.7	pp. 50-52		(P) Attracting and repelling fixed points
W 2.9	pp. 52-54		(P) Neutral fixed points; attracting and repelling cycles
F 2.11	pp. 131-133		(P) Newton's method for polynomials
M 2.14	pp. 41-45		Sarkovskii's Theorem
W 2.16		HW 2 due	Schwarzian derivatives
F 2.18			Topological conjugacy
M 2.21			More on topological conjugacy
W 2.23		HW 3 due	In-class investigation of the tent map
F 2.25			Cantor sets
M 2.28			Symbolic dynamics I: sequence spaces
W 3.2			Symbolic dynamics II: dynamics of the shift map
F 3.4			Chaos Midterm exam due
M 3.7			
W 3.9			<i>No class (Spring Break)</i>
F 3.11			
M 3.14			More on chaos
W 3.16			Bifurcations
F 3.18			Period-doubling cascades in the logistic family
M 3.21			Smale horseshoe map I
W 3.23			Smale horseshoe map II
F 3.25			Review of complex numbers
M 3.28			Dynamics of Mobius transformations
W 3.30			More general complex dynamics
F 4.1			Properties of Julia sets
M 4.4			Using <i>Mathematica</i> to study complex dynamics (Class meets in SC 256)
W 4.6			Using <i>Mathematica</i> to study complex dynamics (Class meets in SC 256)
F 4.8			Using <i>Mathematica</i> to study complex dynamics (Class meets in SC 256)
M 4.11			Motivating topological entropy
W 4.13			Topological entropy of SFTs
F 4.15			Topological entropy for maps other than SFTs I
M 4.18			Topological entropy for maps other than SFTs II
W 4.20			(P) Measure-preserving systems and ergodicity
F 4.22			(P) A dynamical proof of van der Waerden's Theorem
M 4.25			(P) Hyperbolic toral automorphisms
W 4.27			(P) Continued fractions and the Gauss transformation
F 4.29			(P) Hausdorff dimension
F 5.13			Final Exam due