MATH 671
Chaotic Dynamics and Fractal Geometry (3 units)

Course Outline

Topics		# of Weeks
Chapter 1:	The stability of dimensional maps.	2
Chapter 2:	Sharkovsky's Theorem and bifurcation.	2
Chapter 3:	Chaos in one dimension.	2
Chapter 4:	Stability of two-dimensional maps.	2
Chapter 5:	Chaos in two-dimensions. Cover if time permits	
Chapter 6:	Fractals.	2
Chapter 7:	The Julia and Mandelbrot sets.	3
Tests:		1

Note: Use of the computer program Mathematics to illustrate concepts is encouraged.

Textbook: <u>Discrete Chaos</u> by Saber Eladyi

Adopted: June, 2007