**HOMEWORK 2 (Due Sep. 19)**

Write a C# program to do the Mandelbrot set.

**HOMEWORK 3 (Due Sep. 26)**

Write a C# program with a text box. When you click the mouse in a location of the Mandelbrot set, your program first draws a square with center the point you clicked, and side equal to what you specified in the text box, then it draws the square area you specified in the whole screen. You can repeat this process in the new drawn image.

**HOMEWORK 4 (Due Oct. 3)**

Write a c# program to create a small circle, with 3-triangular propeller blades, forming 120 degrees angle. Make a base for the propeller, and rotate the propeller about the center of the circle.

**HOMEWORK 5 (Due Oct. 10)**

Incorporate a picture of a mountain or any other you would like. Install your 2-D propellers, have them rotate synchronously or asynchronously (your preference), incorporate a realistic sound.

**HOMEWORK 6 (Due Oct. 17)**

Right a program in c# to graph y = sin(x)/x -20 < x < 20, -2 < y < 2, put appropriate tikmarks in the two axis.

**HOMEWORK 7 (Due Oct. 24)**

Modify the NACA program given in class as follows: Apply to the generated data cubic splines so that you will generate a smooth airfoil.

**HOMEWORK 8 (Due Oct. 31)**

Translate and scale the generated airfoil in Ex. 7 so that you will make a 3-D propeller wire frame with three blades.

**HOMEWORK 9 (Due Nov 7)** Make the propeller in 8 into a surface.

**HOMEWORK 10 (Due Nov 14)** Make several windmills operational in a mountain terrain.

**HOMEWORK 11(Due Nov 21)** Simulate different wind speeds and the corresponding energy produced.

**HOMEWORK 12(Due Nov 28)**

Use the propeller knowledge to design a propeller plane.

**Project to replace the Tests (Due Dec. 16)**

**For the airplane in Ex. 12 design a flight simulator.**