Lesson Plan 1 - First Day of Class

1) Take attendance - record any wait list students

2) Introduce yourself, new to Foothill, not new to teaching

3) Pass out or mention website for Green Sheet
        Mention website schoenbrun.com/foothill
        Go over green sheet
        You Need:
        1) Textbook
        2) Graphing Calculator Ti83/84
        3) Need to complete homework, be here for tests and quizzes

4) Questions?

5) Review
        A) What is a real number? (Subsets?   )
        B) Solving quadratic equations
        C) Pythagorean theorem
        D) Special triangles from geometry
                1) isosceles right triangle
                2) equilateral triangle
                3) 30/60/90 triangle
                4) 3/4/5 triangle
        E) What is a function?
                What is the domain of a function?
                eg. x^2 or sqrt(x), x/x
                What is the range of a function?
                x^2,

5) Periodic Functions
        What is a periodic function, $f(x+p) = f(x)$
                what about $f(x) = C$?

        Oscilloscope, show the following:

        Some examples:
                Square Wave
                Sawtooth wave
                Sine Wave
        Usually considering the domain all real numbers.
        Periodic over the domain? x and x+p member of the domain
        Vocabulary:
                Period, Wavelength and frequency of a function?

What is the midline of a function?
What is the amplitude of a function?
What is the range of a function?

6) Modeling using Periodic functions:
　　　　What are some examples of phenomenon from the real world that can be modeled
by a periodic function? Ask class
　　　　　　　Sunlight each day?
　　　　　　　Weather each day
　　　　　　　Daily tides
　　　　　　　(What do these have in common? the earth's spin)
　　　　　　　Weather each year
　　　　　　　(The earth's position around the sun)
　　　　　　　Monthly Tides, 28 days
　　　　　　　(The moons position around the earth)
　　　　　　　Sun spots on the moon 11 year cycle
　　　　　　　Sound Waves:
　　　　　2D periodics?
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7) Sound Waves, use Scope connected to speaker

8) Break for 5-10 minutes

9) Show sections from DVD (Specifics?)

10) Hand out periodic functions in class

11) Go over hand out

12) Assign Homework for next Tuesday
8.1 #9-15, 19, 20-29, 32,35, 40