Programming Assignment 1

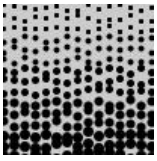
Programming

In class we will go over **variables** (int and float), **loops** (for-loops), and **decisions** (if-else statements). We will also go over how to save an image to an image file (jpg or png). Many examples are given in your text: *Processing*, by Casey Reas. Take time to experiment with some of the examples found there. Test your understanding of the code by making changes. Can you predict what will happen before you run the code?

Design Elements and Principles

Design elements:	**Design principles:**
1. Line 2. Shape 3. Pattern & texture 4. Illusion of space, depth 5. Illusion of motion 6. Value 7. Color.	1. Unity 2. Emphasis & Focal Point 3. Scale and Proportion 4. Balance 5. Rhythm and repetition

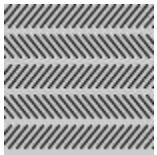
The above categories were taken from Design Basics, 8th Edition, by Lauer & Pentak. You can find similar (but not identical) categories and explanations online, for example Design elements and principles.

 Point

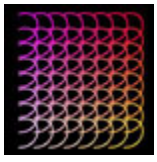
 Shape or Form

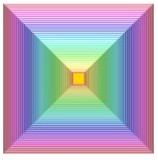
 Line

 Color

 Line & Direction

 Value

 Pattern and Texture

 Depth

Programming & Design Instructions:

You are to write your own code but can make use of small *snippets* of code from examples in the text or elsewhere. If you do this, a reference should be included as a comment in your code.

Part 1:

Choose at least 3 of the above design elements. For each, write a Processing program that illustrates that element in a simple but creative way. See the above examples; note, these are just examples - your images could be very different from these! The size of the images should be at least 400x400.

Part 2:

Combine multiple design elements together in a way that satisfies the above design principles to create 2 different *abstract* images. The size of the images should be at least 400x400.

In class, we will critique each other's images. Be prepared to discuss what you did, the choices you made, and how the elements are combined to satisfy the design principles. In the critique, you will be asked:

1. What are the primary design elements being used?
2. Identify the focal point (or points). Explain.
3. Is the image balanced? Explain.
4. Is the image unified? Explain.
5. How, if at all, has rhythm and repetition been used?
6. How, if at all, has scale and proportion been used?

Critique Questions

Submission Instructions

Submit both your images and code via WISE Assignments as a single attachment as follows:

1. Create a folder (e.g. on your H-drive) called PA1.
2. Place (e.g. copy) your final Processing project folders into this folder. There should be 5 folders (3 for the design elements and 2 for the design principles):
    a. Please delete any extraneous folders or files such as practice programs and earlier versions of programs or images.
    b. Inside each project folder should only be the Processing code (extension *pde*) and a single image (it needs to be clear exactly which image is being submitted as part of the assignment).
3. Compress the entire PA1 folder into a zip file (ask the instructor if you don't know how to do this). Check the result to make sure it contains everything!
4. Submit this single compressed zip file as an attachment to the Programming Assignment 1 on WISE.

Grading

Grading will be based on the following (10 pts)

1. Did you follow the instructions?
2. Did each of your 3 images in Part 1 capture some aspect of the associated design element?
3. How well did your 2 abstract images in Part 2 follow the design principles as evaluated in the class critique (see critique questions above)?