Independent Study Project Proposal

I. Project Goal

   A. The goal of the project is to provide a resource for
      learning the Processing language, while learning it
      myself. The project will consist of Word documents
      that contain: written explanations and screenshots of
      specific topics in Processing, a programming
      assignment for each unit, and a possible solution for
      each assignment. No videos will be made as
      instructional material.

II. Project Motivation

   A. Mr. Pittman suggested this project to me, and I was
      unable to come up with another project that fit my
      specific requirements. In addition, when I looked into
      Processing in more detail, I discovered that it's
      actually pretty interesting.

III. Project Assumptions

   A. I am assuming that I will be able to successfully
      install the Processing Development Environment and run
      Processing code on my machine.

IV. Project Components

A. Each unit will be composed of the following elements: an instructional text, an assignment that utilizes the new material, and a document that holds hints and a possible solution to the assignment.

B. The following units will be covered:

    1. Installation and introduction to Processing

    2. Introduction to computer graphics concepts

    3. Drawing basic shapes

    4. Objects and Other Java Specifics in Processing

    5. Animation

    6. Interactivity

    7. Math in Processing

    8. Text

    9. Images

    10. Introduction to 3D Sketches in Processing

V. Project Scope

A. The product is intended to be used as a learning tool for people who already have experience in Java. It is not intended to introduce laypersons into the world of programming.

VI. Project Tools

A. While I remain at home for online learning, I will use Word and the Processing Development Environment.

B. If I return to school this semester (unlikely), then I will use Google Docs and the Processing capabilities of repl.it on my Chromebook.

C. In both scenarios, I would be using the screen capture functionality.

D. The products of this project can be used by people with access to either Microsoft Word or Google Docs. To run Processing code, they will need the PDE or repl.it.

VII. Project Testing

A. As the main product is a document, there is no testing for that.

B. For each example solution, I will check that it exactly meets the specifications laid out in the assignment document.

VIII. Project Team

A. I, Carson Foster, will be responsible for the entirety of the project's creation.