

Exam Overview

- The exam format is the same as the midterm. It will consist of:
 - Short answer/multiple choice (mostly)
 - Two programs you need to write
- The exam covers the entire course. It will be more heavily weighted to material after the midterm.

First Half Topics

- | | |
|-------------------------|--------------------|
| ■ Syntax | ■ Loops |
| ■ Drawing Shapes | ■ Math |
| ■ Moving Shapes | ■ Angles |
| ■ <i>Color</i> | ■ Random Numbers |
| ■ How computers work | ■ Functions |
| ■ Variables | ■ Debugging |
| ■ Conditionals | ■ <i>Arrays</i> |
| ■ Animation | |
| ■ Interaction | |

Second Half Topics

- | | |
|---|--|
| ■ Objects and Classes <small>(<i>know what they are and how to use them, but you don't need to define your own</i>)</small> | ■ Convolution |
| ■ Analog vs. Digital | ■ Sampling Theorem <small>(<i>main idea</i>)</small> |
| ■ Sampling and Quantization | ■ Compression <ul style="list-style-type: none">➢ lossy vs. lossless, principles used to achieve compression |
| ■ Rasterization | ■ Analog and Digital Transmission |
| ■ Images <ul style="list-style-type: none">➢ Loading, displaying, blending, modifying, working with the pixel array | ■ Video library |
| ■ Filters | ■ Text <ul style="list-style-type: none">➢ Manipulation and display |
| | ■ 3D |

Tips for Preparing for the Exam

- Carefully review the online slides and your notes from class. The questions will be based on the lecture material.
- Review all the basic programs posted online and make sure you understand what each program is doing. A great way to test this is to give yourself a challenge problem. Come up with something a little bit different you want the code to do and then change it to achieve this goal. This will help ensure that you actually understand the code.

Tips For Writing the Exam

- Read the questions carefully and precisely
- When there is code, go through it line by line. Take your time and make sure you know exactly what is going on.
 - Don't answer what you think is intended with the code. Answer what it is actually doing
- When you have to write code, think about your solution first and then work out the code. If you forgot something, add comments to explain what you want to do.
 - Comments are also helpful for noting any assumptions you are making or helping to explain what you are trying to do
- Breathe!