**ASCII Art**

**Lab 1**

Name 1, netID 1  
Name 2, netID 2

***“On my honor, as a Mississippi State University student, I have neither***

***given nor received unauthorized assistance on this academic work.”***

CSE 1284 Introduction to Computer Programming

Lecture Section Time: TIME GOES HERE (MWF 10am)  
Instructor: Monika Jankun-Kelly

Lab Section: LAB SECTION DAY GOES HERE (Monday or Friday)  
Lab Assistant: NAME GOES HERE (Tyler Narmore)

**Problem Statement**

Briefly describe what your program is supposed to do, its purpose. This need not be lengthy, especially not for this simple lab. Problem statements for 1284 labs should be anywhere from a sentence or two to a paragraph. If you can use a diagram instead of lengthy text, do so!

**Program Design**

A program design is an explanation of what your program does and how it does it.  
You should start with a very brief description of the program’s purpose, a phrase or sentence.

Your photos of your drawing designs should follow. One photo per drawing. Label each photo!  
ie. design 1: initials, design 2: animal, design 3: landscape

In later programs, you will put your algorithm pseudocode and/or flow charts here.  
For lab 1, you only need the drawing design photos.

**Testing**

Know what you expect your program to do before you write the program. Then check if your program really does that. If not, fix it. That’s known as testing and debugging. In later labs,  
you might use test tables. We have not covered those yet. For lab 1, the test case format shown below will be sufficient. Be sure to have at least one test case for each design.

For lab 1 only, you may combine your Program Design and Testing sections into one Design And Testing section if you wish. In later labs, you will always have separate Design and Testing sections.

**Test Plan**

Display a picture. It should match the design. If it does not, modify the design or the program.  
If there are errors, fix them.

**Test Case 1**

expected behavior: print image of initials as shown in design 1

program behavior: printed image of initials but taller than expected (show screenshot)  
 design modified as shown below (include image of new design)

**Test Case 1b**

Expected behavior: print image of initials as shown in modified design above

Program behavior: …

**Test Case 2**

expected behavior: print image of an animal as shown in design 2

program behavior: the program crashed with this error message (show message below)

bug fix: brief description of what the bug was and how you fixed it  
 ie. Print was misspelled. We fixed the spelling.

When showing error messages, do not copy and paste huge blocks of text.   
Just copy the relevant part of the error message or paraphrase it.

This is NOT acceptable in a lab report.

Traceback (most recent call last):

File "C:/Users/Monika/Documents/work/cse\_1284/Monika\_1284\_2018\_spring/labs/lab 1 - ASCII art/junk.py", line 1, in <module>

prin( "hi" )

NameError: name 'prin' is not defined

This is acceptable.

NameError: name 'prin' is not defined

**Execution Screenshots**

Your screenshots of your output, the printed drawings, go here. Again, clearly label each one.  
In Word, there is a way to easily paste in a screenshot of any open window. Your TA can show you how.

For lab 1, even if you already have plenty of screenshots in your Testing section, you still need to show them again in the Execution Screenshots section! Again, clearly label them Screenshot 1: Initials, Screenshot 2: Animal, etc.

**Analysis and Conclusions**

In this section, you may draw conclusions from the results of your lab. You’ll be doing plenty   
of data analysis later, in 1384. However, in 1284, your conclusions section will usually be reflection questions about the learning process.

For lab 1, answer the following questions. Be sure to include both questions and answers   
in your lab report.

1. What do you notice about the aspect ratio of grid paper compared to the aspect ratio of ASCII characters? Put another way, how does the width and height of grid paper squares compare to the width and height of ASCII characters on the screen? How does this affect the design process for this lab?
2. Describe at least three skills or concepts that you learned successfully.  
   If there were more than three, pick the three you enjoyed most.
3. Did you find anything difficult about this lab? What advice or instructions would   
   you give future students to help them with this difficulty? This need not necessarily   
   be programming. For example, in lab 1, it might have been installing python or learning to crop images.

**References**

References must neat and clear. For books, provide title and author, edition if relevant, and chapter and/or page numbers. For online references, provide the name of the site or online book and section/chapter numbers or a topic. Do NOT just copy/paste raw links or you will lose points.

This is NOT acceptable.

<http://greenteapress.com/thinkpython/html/thinkpython003.html#toc17>

This is acceptable.

[Think Python by Downey – 2.6 Interactive Mode and Script Mode](http://greenteapress.com/thinkpython/html/thinkpython003.html#toc17)

In the references section, you must have the following references.   
You may have additional references if you find more that are helpful or relevant.

* the print() function
* how to use the IDLE editor
* how to take a screenshot
* HONORS: the extended ASCII character set

Be sure to remove instructional text and my examples from the lab report before turning it in!

Be sure to save your lab report as a PDF file before turning it in!

**Code Appendix**

Copy and paste your code into your lab report at the end. This speeds up grading.  
The Code Appendix should start on a new page.