**COMP354 – Operating Systems**

**Spring 2016**

**Project #4 – Grading Rubric**

**Writing Files + Improved Shell**

**\_\_\_30\_\_ / 30 Required Functionality**

compileOS script additions work correctly

**Y** N compileOS produces bootable OS image.

writeSector works correctly

**Y** N writes data into sector

**Y** N returns 1

deleteFile works correctly

**Y** N correctly frees all sectors in disk map.

**Y** N correctly nulls first character of filename

**Y** N returns 1 if successful

**Y** N returns -1 if file is not found

**Y** N interrupt 0x07 for deleting file works correctly

writeFile works correctly

**Y** N writes 1 sector file correctly.

**Y** N writes 2 sector file correctly.

**Y** N reuses directory entry correctly (e.g. ends used sectors with 0)

**Y** N correctly allocates sectors from disk map

**Y** N writing existing file replaces file

**Y** N return -1 if disk directory is full

**Y** N return -2 if disk map is full

**Y** N interrupt 0x08 for writing a file works correctly

**\_\_22\_\_\_ / 30 Improvements**

User library augmentation

**Y** N function for deleting a file

**Y** N function for writing a file to disk

Shell improvements

**Y** N delete <file> command works

**Y** N copy <src> <dest> command works

**Y** N dir command works

Editor

**Y** N Editor runs from command line.

Y **N** Editor creates and saves new text file.

Y **N** Editor replaces existing text file.

**\_\_\_10\_\_ / 10 Coding Style**

**Y** N Uses struct’s appropriately for searching Disk Directory.

**Y** N Uses reasonable functional decomposition.

e.g. String comparisons and copying

e.g. Finding directory entries

e.g. Computing absolute disk sectors

**\_\_5\_\_\_ / 5 Documentation**

**Y** N kernel.c and other files are well formatted and adequately

documented.

**\_\_\_\_\_ / 0 Bonus**

Symbolic Links

Y N interrupt 0x0A creates a symbolic link

Y N returns 1 if the link is created

Y N returns -1 if the file cannot be found

Y N returns -2 if the disk directory is full

Y N Shell supports symlnk <src> <dest> command

Y N type/copy commands work with symbolic links

Y N delete command removes link not file

Y N delete command leaves dead link if file deleted

Y N type/copy report file not found if dead link is typed/copied

Y N dead links come back to life if new file is created

Command History

Y N Up/down arrow display previous commands

Y N Enter can be used to execute past command

Shell Scripting

Y N Shell executes scripts

Y N Shell scripts must start with #!

**\_\_\_67\_\_ / 75 Total**