Exam 1 Study Guide
CSCI 423/501
Monday Oct 5th, 2009

1) C Concepts:
   a) Printf
   b) Primitive variables (int, char, float, etc...)
   c) Arrays
   d) Strings
   e) structs
   f) Pointers *, &
   g) #define
   h) malloc
   i) atoi

2) General OS Concepts
   a) What is an OS?
      i) Tanenbaum sections: 1, 1.1, 1.1.1, 1.1.2
   b) Processors (sec 1.3.1)
      i) Stack Pointer
      ii) System Call
   c) Basic I/O (sec 1.3.5)
      i) Interrupts
      ii) Busy waiting
      iii) Device Drivers
   d) Basic Processes (sec 1.5.1)
   e) Address Spaces (sec 1.5.2)

3) Processes
   a) Processes/Threads (2.1 – 2.2.5)
   b) Scheduling (sec 2.4 – 2.4.3)

4) Projects/Xinu
   a) Know your code!!!
      i) I will ask questions about any project. If you didn’t actually write your code you might have a difficult time with these questions.
   b) Kputc/kgetc and UART specific code
      i) What is it supposed to do? If I give you an initialize.c, know what the output would be.
      ii) How does the UART work? If I give you a kputc and/or kgetc that may or may not work correctly, know what would happen.

In general, about 50% of the exam will be simple questions (multiple choice, matching, fill in the blank, etc.) The other 50% will be short answer questions that ask you to apply your knowledge in a way that is not explicitly stated in the text/lectures. Read and reread all of the specified sections of the textbook paying special attention to keywords. Read and reread your own code making sure you know all of the C concepts and the Xinu concepts.