Outline for June 3, 2002

Handouts: Sample Finall **Reading**: none

- 1. Greetings and felicitations!
- 2. Static debugging
 - a. using printf to print variable values; mention %p (prints pointer value, usually as a hex integer)
 - b. using printf to print where you are (ie, on function entry printf("in function\n");
 - c. #ifdef DEBUG ... #endif around the printfs so you can leave them in the source if you need them again
 - d. assert(x) macro: assert($0 \le i \&\& i \le n$) causes program to exit with error message if ($0 \le I \&\& I \le n$) is false; must include <assert.h>. To delete, say #define NDEBUG and they will not be in the compiled code.
- 3. Dynamic debugging
 - a. debugging tool instruments executable program so it can be stopped, examined, altered, and continued interactively
 - b. go through the handout
 - c. mention the "where" command which shows you the program stack