CSCI 331
Compilers

Topics from the Final Exam are all from the second half of the semester:

I.   Assembly Language programming and our Runtime Environment. I am mostly concerned about the runtime environment: what does the caller do and what does the callee do for a call. See the class notes for **March 14, 18, and 28, April 1, 4**. The March 14 notes also point to a handout called "The Runtime Environment".

II.   The heap, dynamic memory allocation, and Garbage Collection. See **April 8, 11**

III.   Compiling Object-Oriented languages. See **April 13**

IV.   Dataflow and Live Variable analysis   See **April 15**

V.   Register Allocation (which uses live variable analysis) See **April 18**.

VI.   "Simple Optimizations" such as constant folding, loop unrolling, and strength reduction. I won't ask you to implement them, but you should know what they are and why they matter. **See April 22**

VII.   SSA (Static Single Assignment) form. **See April 27**.