CS 620A Syllabus

Chomsky hierarchy: regular, context free, context sensitive, and general grammars. Variants including deterministic languages and recursive languages.

Machine equivalents of the above including finite automata, push down automata, linear bounded automata, Turing machines, deterministic or two way variants.

Normal forms such as Chomsky and Greiback.
Closure properties (many).

Unsolvable problems, Little and Big Halting problems, Post Correspondence Problem, universal Turing Machine

Regular expressions, subset construction, and other reprises from CS 562.

Left recursive grammars, left sequential grammars, ambiguity, inherent ambiguity, self-embedding and inherently self-embedding grammars or languages.

One assignment in LEX, but rest of hw is math problems, or algorithm problems.

If in going over hw I recognize solutions I have written in previous years, you will not like what happens next: brand new never before asked non-trivial questions are very hard to find in books or on the web. This is a class for which your goal is thinking, not copying.

Copying as always will be greeted with execution (an F). It is not that hard for me to distinguish between mindless copying and the result of consulting another for hints, but fully understanding the solution that you present, and expressing it as elegantly as possible in YOUR OWN WORDS.

The grading algorithm will start with hw counting 30%, and with that percentage decreasing dramatically as I receive examples of mindless copying.

Notice that you are allowed to talk about the assignments with other students. Doing them together from their inception is dead wrong.

You consult with someone after 6 hours of YOUR OWN EFFORT on a problem have proven unproductive, and not before. WHEN you consult with another student, both students must acknowledge that fact on their submitted hw. Such acknowledgment is a GOOD thing, not a bad thing, and seeking hints and wisdom from others is a good thing also after you are pretty sure you have exhausted your own resources. After working six hours on a problem it is normal and desirable to want to find a solution--so seeking hints or ideas from other students is acceptable. Copying is not.

The final guideline is of course this: when all is said and done 90% of the effort on your hw should have come from you. The best person to consult with first is the prof. teaching the class.

Grading: one midterm worth 25% of hw worth 25%, and a comprehensive final worth 50%. The final is good training if you want to try a comprehensive exam in January.