Information and Advice from Layla Oesper on preparing for the Programming Comp

Congratulations on finishing (or being almost finished) with your first semester of graduate school! One of the next big things on the horizon is the programming comps exam.   We have advice for you to help you prepare for the exam, complete the exam, and defending your program once you've completed the assignment.

Previous Year's Exams: You can find most of the previous exams here: http://www.cs.brown.edu/grad/doctoral/reqs/prog.html You may notice that the previous year's exam is not yet up. If you really want to get a look at last year's exam before it's posted, email the professor who administered the exam last year to get a copy. I would HIGHLY recommend taking a look at some of the previous exams, but especially last year's since it is the best indication of what the exam might look like this year.

During the Exam: One of the most helpful things that I did while taking the exam was to ask questions. I think I probably emailed Rodridgo (who was coordinating the exam last year) at least a few times everyday to ask a question or get clarification to make sure I was interpreting the instructions correctly. If you aren't sure about something - ASK. It can save you a lot of time.

How the Exam Works: The documentation about how the exam actually plays out is pretty skimpy, so here is my take on it. The exam actually breaks down into 4 main pieces.

1. Write a program that solves whatever question you are asked to solve.
2. Run some set of experiments with your code to show/prove that it does what you expect it to as being "efficient".
3. Write up a report that explains the design decisions you made while programming and reports the results of your experiments from part 2. This includes algorithmic decisions, your choice of language, etc. The length of this report seems to vary year by year. Most people I talked to before taking the exam said their report was 2-3 pages, while for my year it was recommended that it be between 5-20 pages (mine ended up being 10 pages including figures).
4. Answer questions about your program and writeup to a committee of 3 faculty members. This was pretty short for me last year, lasting less than 10 minutes.

Talk to your office-mates, your lab-mates, or your friends who have already taken the exam. Everyone has a slightly different experience with the exam and talking to different people means that you are more likely to get advice that will be useful to you.

Good Luck!!!