CRB Candidacy Exam Notes (by Leslie Piggott):

Tasks to be completed prior to exam day:

1. Form examination committee according to GSBS standards (at least one outside GSBS faculty member)
    a. A good chair knows your project fairly well, maybe from your advisory committee
    b. Good choices for other members include faculty that study similar types of systems, especially faculty that are active CRB (or other program) members
    c. Get signatures on GSBS form (found at http://gsbs.uth.tmc.edu/current_forms.htm)
    d. Submit to OAA (address listed on form; goes to Bunny Perez/Dr. Wiener)
    e. **Must be submitted by noon 1 week before the ASC meets**
        i. Alternatively, Dr. Wiener can approve this administratively if you call him (x9870)
2. Choose 3 area breadths
    a. Work with your exam chairman to choose these, otherwise, they may not be approved
    b. Some choices that have been used in the past:
        i. Tyrosine kinase signaling
        ii. Cell cycle
        iii. Cardiovascular pharmacology
        iv. Cyclic nucleotide signaling
        v. Apoptosis
    c. One area must be unrelated to your project
3. Answer one question from the area breadths
    a. It's a good idea to choose the one you are least familiar with, that way you become equally familiar with it by the time the exam is here.
    b. Choose references wisely; don't over reference and make sure anything you reference you have read through. You don't want to get stuck on a question because you don't know what type of assay was used in the paper.
4. Write your proposal.
    a. There are a lot of guidelines for this. No more than 15 pages excluding references. They also suggest no more than 2-3 pages for background, one page for Specific Aims, and the rest for Research Design/Methods. You can also use one of these pages for an abstract, which isn't a bad idea. For more helpful hints, see http://gsbs.uth.tmc.edu/policies/phdreqs.html.
    b. To get a good starting point, ask your advisor if you can see an old NIH grant (at least to look at the formatting).
    c. Try to remember that your proposal is telling the story of where your project is going. In other words, you (or someone in the lab before you) found some result that led to this hypothesis that you are going to test in this way. Subsequent experiments have led you to test…you get the idea, right?

5. Schedule the exam date. Afternoons are best, professors are more awake and happy at this time of day. ☺ You can also bring some refreshments to lighten the mood if you want (coffee, soda, cookies, etc).
6. Take the exam! It will not be as bad as you think.

Timeline of events:
After getting permission from your advisory committee (and their signatures on the appropriate form), start looking for exam members.

1. Form committee—Time zero; start working on proposal now!
2. Submit 3 area breadths to chair (assume your committee will be approved by ASC) Your committee needs a lot of time to come up with written questions for you, remember the exam is most likely your #1 priority at this time, but not your committee members. ☺
3. Schedule exam date; allow at least 7-8 weeks from when you have all your committee members selected and confirmed.
4. Receive 3 written questions from area breadths—6 weeks before exam date.
5. Submit written answer and proposal to chair and committee members—2 weeks before exam date.
6. Exam Day (probably 8-10 weeks from time zero).

Other hopefully helpful hints:

1. Try to find some good references from your advisor; you may already have some just from reading they've given you thus far. You can build your reference list from these.
2. Be sure you understand any techniques you are proposing to do; it's really great if you can find the original paper that explains how it was done.
3. Remember that no one on your committee wants to see you fail or give you a conditional pass (that's more work for them, too, right?). Stay calm and answer questions to the best of your ability.
4. Say "I don't know" if you don't know. Don't make something up; someone else might know the real answer and then you are caught!
5. Know the major contributors in your field. Get an idea of the kinds of experiments they have completed (is there a knock out—phenotype, are there inhibitors, etc)
6. Know how your protein of interest is regulated (if it's known). What happens when it is phosphorylated? Where is it phosphorylated? What turns it on/off? What levels are found in human? Are there any SNPs? Loss of function mutants?
7. Talk to your friends who have already experienced the exam for any other methods for success!