Things to Know About Quals

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1. **There are forms to fill out!**
    a. They need to be submitted ~3 weeks before your exam date!
    b. Hypothetically speaking, if one of your committee members pulls out 2 days before your exam, don't worry! Shirley is the best and she'll get the forms to the right person in time. HOWEVER, do not take advantage of her. If you don't submit your forms due to your own lack of preparation, don't expect her to save you.
2. **Scheduling will not be fun. It's definitely one of the worst parts about the exam.**
    a. The exam should be scheduled for 3 hours (you need to book the room), but it will likely last for ~2 hours.
    b. The best question you can ask your committee when scheduling is what their travel plans are for the ~3 month period surrounding your target exam date. They will probably have this information on hand, and won't ignore the email.
    c. In that same email, ask them if they're teaching a class that semester and if so, what times and days. It's generally a good idea to schedule on days they're teaching because you know they'll need to be on campus that day anyway.
    d. Look at their BCals to see if they keep those updated. Many professors do. This will make your life much easier.
    e. Ask the above two questions in your first email, check the calendars, compile the results, and send out potential dates and times for the exam.
    f. Many people like to just send out Doodle polls and have each of the profs fill out their availability for a 1 month period or so. If I were a professor I would definitely ignore that email for a long time. Your goal in contacting them should be maximizing the chances of them responding by minimizing the amount of work they need to do to respond.
3. **There are two formats for Quals, A and B**
    a. Basically everyone takes Option B.
    b. Option A requires that you "write up and present a thesis proposal which should include a summary of the research to date and plans for future work." So basically you have to do a write up and second presentation to your committee.
    c. The official blurb from Shirley for both formats is at the end of this document.
4. **Meet with your committee!**
    a. Many people (even advisors) will tell you this is a bad idea. I disagree. I think it's very important to know what every member of your committee wants and expects out of you.
    b. **In that meeting your goal is to talk at a very high level about the exam, not your project.** What format do they like quals to be in? Do they want a list of publications? Do they want a timeline between now and graduation? Do they want you to focus on what you've done or where you're going from here?

    c. You don't want to talk about the technical details of your project during this meeting. You don't want them thinking about your research project too hard before they get into the exam. **You want to frame your project for them during your exam, so don't let them start thinking about it before the exam starts.**
5. **"Finish" your slides as soon as possible and show them to your peers.**
    a. Everyone who I've talked to about Quals wishes they showed their slides to other people sooner. When you only have one pair of eyes on them, you get tunnel vision and forget that other people haven't been thinking about this as much as you. You need other people's input.
    b. Don't get offended! Your peers are going to have LOTS of comments on your slides. They will tell you some of them are terrible. They will tell you some of them are awesome. Roll with the punches and know that they're not trying to be mean (unless your friends suck), they're trying to help. Your slides WILL get better with their input. Be open minded.
6. **Choose who you give practice talks to wisely**
    a. If you only show your slides to people in your group, who have seen your plots, figures, and data before, you're doing yourself a disservice. Some of the figures you show in group meeting only make sense to people who have seen them before.
    b. You need outsiders who have never seen these plots before to be able to look at your plots for 10 seconds and glean 90% of the important information. If they cannot do that, it is not a good figure and you need to remake it. Showing your slides to a friend outside of your area is one of the best ways to do this.
7. **When all's said and done, you will be happy you went through this process**
    a. I know everyone says this, but it's true. Quals will help you wrap up everything you've been doing for the past 3,4,5,6,7 years and figure out how it all fits into a PhD.
    b. Take advantage of having 5 super smart people all in the same room, all thinking about your project. (No typo above, YOU ARE SMART! Don't you forget it :))
8. **Take everything you hear about Quals with many many grains of salt**
    a. Everyone does it differently and has a different experience. You will too. If two people give you conflicting advice, don't freak out. There are many ways to skin a cat.
    b. This document lays out how I did quals, what worked for me, and what didn't. If you disagree with anything I've said, don't do it! You'll be fine.
    c. The best thing you can do is talk to lots of different people about quals, people who loved it, people who hated it, people who had your committee members on their committee, and see what they say. Assimilate all of that information and make your own decision and what to do.

GOOD LUCK!!!

Qual Format A vs Format B

Quals may be in format A or B, at the choice of the examinee, after consultation with his/her advisor.

Format A. Present a summary of a specific research area, surveying that area, describing open and interesting research problems. Describe why you chose these problems and indicate what direction your research may take in the future. Prepare to display expertise on both the topic presented, and on any related material that the committee thinks is relevant. The student should talk (at least briefly) about any research progress to date (e.g. MS project, Ph.D. research, class project etc.) Some evidence of the ability to do research is expected. The committee shall evaluate the student on the basis of his/her comprehension of the fundamental facts and principles that apply within the student.s research area, and his/her ability to think incisively and critically about the theoretical and practical aspects of this field. The student must demonstrate sufficient content and command and the ability to design and produce an acceptable dissertation.

Format B. Will include all of option A and the presentation and defense of a thesis proposal. It will include a summary of research to date and plans for future work (or at least the next stage thereof). The committee shall not only evaluate the student.s thesis proposal and his/her progress to date, but shall also evaluate according to option A.

Any student not presenting a satisfactory thesis proposal defense, either because s/he took option A, or because the material presented in option B was not a satisfactory proposal defense although it may have sufficed to pass the Qual, must write up and present a thesis proposal which should include a summary of the research to date and plans for future work (or at least the next stage thereof). S/he should be prepared to discuss the topic of research and related areas. This is not an examination, but simply a presentation to the committee about your research direction and progress made so far. The standard for continuing on with PhD research is that the proposal has sufficient merit to lead to a satisfactory PhD dissertation. Another purpose of this presentation is to provide feedback on the quality of work to date. For this step, the committee should consist of at least 3 members from EECS familiar with the research area, preferably including those on the dissertation committee.