ERE Qualifying Exam Guidelines

Qualifying Exam
The procedure for Ph.D. qualification is identical for individuals who entered the department as an M.S. or a Ph.D. student. For students completing an MS in the department, the student formally applies to the Ph.D. program in the second year of the M.S. degree program. The student is considered for admission to the Ph.D. program along with external applicants. The admission decision is based primarily upon research progress and course work.

There are two steps to the qualification procedure. Students first take a preliminary written exam that is offered at the beginning of Autumn Quarter. The exam focuses upon synthesis of knowledge acquired from core courses in ERE or PE. Exams are different for ERE and PE PhD students, but share a goal of having students exhibit capability to solve an engineering problem. Students take the exam consistent with their PhD degree objective (i.e., ERE or PE).

Students continuing within the department take the written exam at the beginning of their first quarter as PhD students. Students who completed their MS outside of the department take the written exam at the beginning of their fourth quarter as PhD students. A student who does not pass the exam may not be allowed to take the exam a second time. Any student who does not pass the written exam is considered to have failed the qualifying exam. Any student who is deemed to have not made sufficient research progress may not be allowed to take the preliminary exam and research progress shall be taken into account for pass, fail, and retake decisions.

A written Ph.D. proposal and oral defense are the main components of the second step. The written proposals are reviewed by three faculty members. Students are provided a template of what constitutes an acceptable proposal. Students subsequently make an oral presentation of their proposal to three faculty members including material such as a literature review, identification of key unanswered research questions, proposed work outline, and an oral presentation. Following the presentation, the student is questioned on the research topic and general field of study. The student can pass, pass with qualifications requiring more classes or teaching assistantships, or fail. Students who completed their MS in the department prepare and defend their proposal in their third quarter (not counting summer) as a PhD student. Their advisor may request an additional quarter given extenuating circumstances such as a major change in research focus between MS and PhD programs. Students who completed their MS outside of the department complete the proposal in their fourth quarter (not counting summer) of study.

Students who have passed the Qualification procedure and later wish to change their degree objective from PE to ERE, or vice versa, may petition the graduate standing committee. A switch of degree objective is not automatically granted. Petitions are
made in writing and include a brief explanation of the request for a change in degree objective and a plan to make up subject matter deficiencies. At the minimum, students who petition are expected to complete ultimately all courses listed as contributing subject matter to the written exam in the area of their degree objective with a minimum grade of “B”. The graduate standing committee decides whether petitions have merit and if additional steps are needed to address deficiencies. Such switches in degree objective will be considered provisional until all conditions have been met.

Candidacy
Once a student passes the qualifying exam, he/she must apply to advance to candidacy. Once granted, candidacy is valid for five calendar years. Leaves of absence do not extend the candidacy period. https://gap.stanford.edu/handbooks/gap-handbook/chapter-4/subchapter-6/page-4-6-1

The process for scheduling your exam is as follows:
1. Discuss the process and preparation of your proposal with your adviser, typically at least 7-8 weeks ahead of the time you expect to have your exam.
2. Determine the three members for your faculty committee.
3. Identify a time and date that works for everyone on your committee.
4. Schedule an exam and reserve room
5. Email Joanna at least one week prior to your exam with your exam date (joannac@stanford.edu).
6. Submit your proposal to your committee members at least two weeks prior to your scheduled exam date.
7. Bring a copy of the qualifying exam form and your transcript (available via axess) to the exam.

Please be sure to submit all forms (qualifying exam form and candidacy form) to Joanna Sun in Room 97 after your exam.