COMPUTER ENGINEERING
Graduate Exam Committees, Proposals, and Dissertations

(This information is only applicable to students who enrolled **before 2019**; please see the newer information [here](#).)

These are the current policies for the Computer Engineering Thesis Reading Committee, Master's Project Reading Committee, Qualifying Exam Committee, and Dissertation Reading Committee. These policies are in addition to the Graduate Council requirements described in the [Graduate Handbook](#).

COMMITTEES

Master's Thesis Reading Committee

The members of the Computer Engineering Master's Thesis Reading Committee must include the following:

- A ladder rank CSE faculty member (may be the advisor) OR a ladder rank ECE faculty member in the Robotics and Control group (may be the advisor). This is the chair of the committee.
- A ladder rank UCSC Baskin School of Engineering (BSOE) faculty.
- A UCSC BSOE faculty OR a recognized expert in the student's research area as judged by the Graduate Committee.

Additional members may be added to the committee. Students should consult their advisors about the membership of their committee.

A ladder rank faculty (Academic Senate member) holds the title of Assistant Professor, Associate Professor, or Professor. Associate Professors and Professors have tenure.

Master's Project Reading Committee

The members of the Computer Engineering Master's Project Reading Committee must include the following:

- A ladder rank CSE faculty member (may be the advisor) OR a ladder rank ECE faculty member in the Robotics and Control group (may be the advisor). This is the chair of the committee.
- A ladder rank UCSC Baskin School of Engineering (BSOE) faculty.

Additional members may be added to the committee. Students should consult their advisors about the membership of their committee.

A ladder rank faculty (Academic Senate member) holds the title of Assistant Professor, Associate Professor, or Professor. Associate Professors and Professors have tenure.

Qualifying Exam Committee

The members of the Computer Engineering Qualifying Exam committee must include the following:

1. The chair of the committee must be a tenured ladder rank Baskin School of Engineering (BSOE) faculty member who is not the student's advisor.

2. A ladder rank CSE faculty member (may be the advisor) OR a ladder rank ECE faculty member in the Robotics and Control group (may be the advisor).
3. A ladder rank BSOE faculty member (may be the advisor) OR a recognized expert in the student's research area from outside UCSC as judged by the Graduate Committee and the Graduate Dean.
4. The outside member must be a tenured ladder rank faculty member from a department other than CSE who is not faculty in the Robotics and Control group in ECE OR a recognized expert in the student's research area from outside UCSC.

The outside member may not be the student's advisor.

In the event that the outside member is not from UCSC she/he must have credentials equivalent to a tenured faculty member as judged by the Graduate Committee and the Graduate Dean. The outside member's CV must be submitted along with the exam committee nomination form.

Additional members may be added to the committee. Students should consult their advisors about the membership of their committee.

A ladder rank faculty (Academic Senate member) holds the title of Assistant Professor, Associate Professor, or Professor. Associate Professors and Professors have tenure.

Committee Selection Tips:

If you are inviting someone from outside to serve on your committee and it is not clear whether their credentials will satisfy the requirements for the outside member, then it is advisable to list them either as the third member or an additional fifth member of the committee to avoid embarrassing them and delaying the appointment of the committee.

Dissertation Reading Committee

The members of the Computer Engineering Dissertation Reading Committee must include the following:

1. A ladder rank CSE faculty member (may be the advisor) OR a ladder rank ECE faculty member in the Robotics and Control group (may be the advisor). This is the chair of the committee.
2. A tenured ladder rank CSE faculty member who is not the student's advisor OR a tenured ladder rank ECE faculty member in the Robotics and Control group who is not the student's advisor.
3. A ladder rank UCSC faculty (may be the advisor) OR a recognized expert in the student's research area with credentials equivalent to a ladder rank UCSC faculty member as judged by the Graduate Committee.

If you have two advisors you should list both as co-chairs. Additional members may be added to the committee. Students should consult their advisors about the membership of their committee. The Dissertation Reading Committee must be appointed in order to advance to candidacy.

Committee Selection Tips:

If you are inviting someone from outside to serve on your committee and it is not clear whether their credentials will satisfy the requirements for the outside member, then it is advisable to list them either as the third member or an additional fifth member of the committee to avoid embarrassing them and delaying the appointment of the committee.

A ladder rank faculty (Academic Senate member) holds the title of Assistant Professor, Associate Professor, or Professor. Associate Professors and Professors have tenure.

DISSERTATION PROPOSALS and EXAMINATION

The purpose of the dissertation proposal and examination is two-fold: first, to establish that the student is qualified to embark on PhD-level research in the chosen field; second, to make sure that the student has a good plan for finishing the PhD, and that the committee (especially the advisor) and the student agree on the scope of the future research.

The proposal should include the following sections:

Background Knowledge
The problem statement should be comprehensible by faculty in the department who are not in the particular specialty of the student and the advisor. The thesis proposal should provide ample references to existing literature in the field and should provide a clear explanation of the problems to be worked on. Typically, the background description for a thesis proposal takes 5-10 pages, with fields with a rich literature requiring more than newer fields. Note that this is shorter than the "prior work" chapter of a finished PhD thesis, but can serve as the nucleus for such a chapter.

Evidence of Preparation
The proposal should explain how the courses taken to fulfill the degree requirements have prepared the student for research on the selected topic. The student's transcript will be available to the committee at the qualifying exam. In some cases, the student will have already worked on some of the problems and have solved some of them. This evidence of ability to work in the field is extremely persuasive, but is not a substitute for citations to the literature. Results should only be summarized in this section; publications or technical reports may be attached as appendices.

Research Plan
The research plan should include detailed descriptions of what the student plans to do (theorems to formulate and prove, systems to build, experiments to perform, and so forth). There should be specific milestones and a time line for when the student expects to meet each milestone. The research plan should schedule writing up of results along the way, indicating possible conferences or journals to which the work should be submitted. The research plan should describe not only the problems to be attacked, but the approaches to be used in attacking them. The details do not need to be fully worked out (indeed, they shouldn't be at this stage), but there needs to be enough information for the committee to estimate the likelihood that the approach will work and to estimate the difficulty of completing the thesis. The research plan should be 5 to 20 pages long.

The full dissertation proposal is approximately 20-50 pages with appropriate tradeoffs between what others have done, what the student has done, and what the student will do.