

A faculty guide to the ESS Advancement process

(Updated May 2020)

I. Purpose:

1) Determine whether the student has the fundamental background knowledge, skills, and mastery of the literature to a) become a subject matter expert in the field, b) conduct original research, and c) successfully complete a PhD dissertation.

2) Determine if the proposed research plan (oral and written) is likely to achieve the stated goals within the normative time to degree (or reasonably close). The student should demonstrate a reasonable understanding of the strengths/weaknesses, and risks/rewards of their research plan.

II. Process:

1. The Advancement Committee makeup follows University policy – 5 members, including an outside member. The outside member must be a UCI Senate faculty member without no affiliation with ESS. The committee is selected by the student with informal input from the Advisor.

2. The student is required to submit a written dissertation proposal to the committee at least one week prior to advancement. The proposal should address: 1) the scientific problem, 2) specific issues addressed in this research, 3) background knowledge needed to understand the problem and demonstrate mastery of the literature, and 4) the approach to be used, 5) the tools and data needed to carry out the work, 6) preliminary results (if any). Consideration of the risks or likely failure points for the research is encouraged. Typical proposals are 7-10 pages of text single spaced (not including literature citations or large figures) and should not exceed 15 pages.

3. At or prior to the meeting, the Committee should self-select one member other than the advisor to serve as advancement Chair. The purpose is to ensure a fair and objective process. The Chair is expected to run the meeting.

4. At the start of the meeting, the student is asked to leave the room so the committee can discuss process. The Chair leads this discussion, which typically covers: 1) the order of events (presentation, questions, deliberation, decision/recommendations), 2) whether faculty ask questions during the presentation or hold them until the end, 3) how questions will be asked after the presentation, 4) the scope of questions. The student file should be available at the meeting and the student's academic standing should be noted while the student is outside the room. Outside members should have the opportunity to ask questions about the ESS process at this stage. The Chair should remind the advisor NOT to answer questions directed towards the student. This defeats the purpose of student assessment.

5. Scope of questions from the committee. Appropriate questions include: 1) specifics of the research plan (oral and written), 2) related literature that the student should be familiar with, 3) fundamental knowledge underpinning the research but not necessarily narrowly focused on the work. For example, questions could address basic knowledge of physical/chemical/biological principles or statistical/numerical methods expected of a student at this level.

6. The student should deliver a formal presentation of approx. 30-35 minutes on the dissertation including background, goals, research plan, and preliminary results (if any). This may run longer if questions are permitted during the presentation. If the presentation is not completed within a reasonable time (40 min. max), the presentation may be terminated by the Chair. The student presentation should include a timeline for completion of the project and note any other degree-related requirements that would influence the timeline (such as required coursework).

7. All Committee members should be given the opportunity to ask questions and if desired, follow-up questions. Committee members should avoid answering questions or engaging in lengthy discussion with other members. The advancement is an exam, not a “normal” committee meeting.

8. After questioning is complete, the student is asked to wait outside while the committee deliberates. During deliberation the Chair seeks consensus on both the outcome decision and guidance to the student (if any). If consensus cannot be reached, the outcome will be based on a simple majority vote. After deliberation, the student returns and the Chair communicates the outcome and guidance to the student. This advice is particularly important in the case of a PROVISIONAL PASS or FAIL, and should be documented so the student is clear on the rationale for the decision and exactly what they can do to remedy insufficiencies. Students receiving a FAIL decision will have the opportunity to retake the exam after a suitable period.

III. Outcomes

Possible outcomes of the advancement exam are: PASS, Provisional PASS (contingent on completion of further revision to the plan/proposal or additional coursework), or FAIL.

In the event of a FAIL outcome, the ESS Graduate Vice-Chair will be informed. The ESS Vice Chair for Graduate Studies and advisor will meet with the student to discuss next steps. It is often useful for the student to take a day or two to reflect on the advancement exam prior to this meeting. The student will have the opportunity to retake the exam one time.

IV. Exam Timing

The exam should occur by the end of spring of the second year, for the student to remain in academic good standing. Extensions for exceptional circumstances may be requested by the ESS Vice Chair for Graduate Studies.

V. Some additional notes

The student is not expected to be at the level of a PhD – just to demonstrate sufficient the knowledge, comprehension, and effort to make it likely that they will succeed at getting a PhD. The committee should calibrate the exam appropriately to the stage of the students' career. Obviously, a second year graduate student is not expected to be working at the same level as a third year graduate student.

Subsequent to the exam, the student is not obligated to execute the plan as proposed, simply to present and defend a viable research proposal.

The student is not obligated to have done the actual research, just to have a serious, credible plan. It is helpful to the student's confidence to have done a bit of it.