

2. The Oral Candidacy Examination

- a. Before taking the oral portion of the candidacy examination, the student must have passed the Written Candidacy Examination.
- b. The student will write a dissertation proposal that describes his/her planned dissertation research according to the following format:
 - i. **Cover Page** - The full title of the proposed dissertation research, the student's name and the Advisor's name.
 - ii. **Project Summary** - A clear statement of the problem to be addressed (hypotheses to be tested) and the student's proposed research (no more than one page).
 - iii. **Project Description** - No more than 15 pages (single spaced), not including references and appendices, as follows:

Introduction - An outline of the proposed work, as well as its goals/objectives and impact on the field of study (one page maximum).

Background and Significance - An introduction to the problem with a brief review of the relevant literature. This section should justify the need for the study and describe previous work by others in the field (four pages maximum).

Research Plan - The research plan and experimental design, including detailed methods and procedures. A discussion of the potential difficulties and alternate approaches. Preliminary data should be included in this section if available.
 - iv. **References** - Citation of the literature, in ACS approved format, is required.
 - v. **Appendices** - May include figures, synthetic schemes, tables, *etc.* outside of the page limit above but not more than 10 pages.
- c. The student may use grant proposals and other information from the Research Advisor but the dissertation research proposal must: 1) be written independently and in the student's own words without any assistance, and, 2) contain substantive, original research ideas not provided by others. Also, detailed guidance from the Research Advisor for the oral defense is not permitted.
- d. The Research Advisor will read the dissertation research proposal prior to its distribution to the Advisory Committee and may provide comments on issues of style, grammar, spelling, *etc.*; however, no comments regarding the specific scientific content of the proposal will be given to the student prior to the oral

defense.

- e. A copy of the dissertation proposal will be provided to each member of the student's Advisory Committee who will then meet within two weeks to judge whether it is defensible. If the proposal is judged to be inadequate, the student will be given one opportunity to submit a revised proposal based on general guidelines given by the Advisory Committee. The student fails the Oral Candidacy examination if the second submission is not deemed to be defensible by more than one member of the Advisory Committee. The oral examination of the student will be scheduled upon approval by the Advisory Committee, but not earlier than one week after such approval.
- f. One copy of the dissertation proposal should be deposited in the main office of the Department of Chemistry and Biochemistry for perusal by other members of the faculty and graduate students. An announcement will be distributed to all faculty and graduate students after the date for the oral defense has been set.
- g. The oral defense will begin with a 20-30 minute presentation of the proposed research. Questioning will then be conducted by the Advisory Committee. The proposed research will be the major focus for inquiry but questions will also involve other areas related to the proposed research. **A successful defense will demonstrate to the Advisory Committee that the student has an independent mastery over the dissertation project and cognate areas.** The student passes the oral examination if there is no more than one negative vote by the Advisory Committee.
- h. If the oral portion of the examination is not passed, a second (final) opportunity will be granted. This should take place within three months after notification of failure.
- i. Passage of the oral defense will admit the student to Candidacy, whereas, failure will result in dismissal from the doctoral program.

H. The Dissertation Prospectus

The student is required to submit an abbreviated Dissertation Prospectus to each member of their Advisory Committee after the oral candidacy examination but not less than one year before the final defense of the dissertation.

The Dissertation Prospectus should briefly describe a final version of the proposed dissertation research according to the following format:

At least two, but no more than three single-spaced pages of text are required.

- i. **Title Page** - Include the full title of the proposed dissertation research, the student's name and the Advisor's name.
- ii. **Problem Statement** - A clear statement of the problem to be addressed by the proposed research. (1-2 paragraphs)
- iii. **Introduction and Background Information** - Provide an introduction to the problem to be undertaken and include a brief review of the relevant literature. This section should clearly substantiate the need for the study, describe previous work by others in the field and include a description of the work already accomplished by the student.
- iv. **Objectives and Methodology** - List and explain the objectives and experimental procedures of the proposed research. (Appendices may be used for graphs, reaction schemes, *etc.* if necessary)
- v. **References** - Citation of the literature, in ACS approved format, is required. (Not included in the 3 page limitation)

Each member of the student's Advisory Committee is required to approve the dissertation prospectus and indicate such approval on the Dissertation Topic Approval Form. This will be accomplished after the committee meets with the student.