

Written Research Plan Approval Form Guidelines (updated July 2022)
Department of Chemistry and Biochemistry

A written research plan is required by each Ph.D. student to fulfill the written component of his or her General Doctoral Exam. According to the Graduate Student Handbook, upon receipt of a written research plan each member of a graduate student's advisory committee is to evaluate the document and return a grade of *Exceptional*, *Satisfactory*, or *Unsatisfactory*. At least a three-fourths majority of the committee must rate the research plan as *Satisfactory* or better in order to proceed on to the oral component of General Doctoral Exam. For the purposes of this form, the grades *E*, *S*, and *U* are taken to mean the following:

E = Exceptional: The research plan is excellent in its conception and writing, and it fulfills the required written component of the Ph.D. qualifying exam. The student is free to proceed with scheduling the oral examination component of the General Doctoral Examination.

S = Satisfactory: The research plan is of sufficient quality to pass the written requirement of the General Doctoral Exam; the student is free to proceed to the oral component of the exam. An advisory committee member may have critiques or concerns with the research plan that do not preclude its rating as *Satisfactory*. These can be addressed during the oral exam.

U = Unsatisfactory: The research plan is of insufficient quality to pass the written requirement of the General Doctoral Examination. A revised research plan addressing the critiques of the members of the Advisory Committee is required before the student can proceed to the oral exam.

A student who receives a grade of *U* from two or more advisory committee members has two weeks to prepare and submit to the advisory committee a revised research plan which addresses the critiques raised by the committee members. A student who receives a grade of *U* on the revised research plan from two or more committee members, will have two weeks to submit a third and final version of the research plan. If the third version receives a grade of *U* from two or more committee members, the student will be deemed to have failed the written component of the Ph.D. qualifying exam and will not proceed on to the oral component of the exam.

Instructions to the student: Send your research plan to each committee member as an e-mail attachment. Fill out the Written Research Plan Approval Form (Qualtrics form) by checking which draft of the proposal is to be evaluated, and filling in the spaces indicated with your name, and the names of your committee members. In our department, only four committee members (including your advisor) are required. Space is provided for additional committee members if it applies in your particular case. The student is responsible for emailing the committee members and giving them the link to the Written Document Evaluation Form (Qualtrics).

Instructions to the committee member: Two weeks are given for research plan review. Use the Written Document Evaluation form (Qualtrics) to score the document and provide constructive comments to improve the research plan, particularly if a grade of *U* is going to be given. Your evaluation will be automatically sent to the Graduate Program Officer (GPO).

Instructions to the advisor: Upon receipt of committee feedback from the GPO, determine whether or not the student has passed the written component of the General Doctoral Exam (i.e., has an *S* or better from at least $\frac{3}{4}$ of the committee). Compile the feedback of the advisory committee into a summary statement; arrange a meeting with the student to communicate the grade received and summarize the feedback from the committee, and in cases where a *U* has been assigned, advice for submitting an improved research plan.

Written Research Plan, Scoring Rubric

Scoring will be done using the Written Document Evaluation Form (via Qualtrics; see DCB website)

Faculty will rank the following items on a scale of 1 – 5, where 1 is poorest and 5 is best.

Scientific Content

- _____ 1. **Knowledge of subject/background/significance.** To what extent does the writer exhibit knowledge of the field pertaining to and forming the foundation of the research plan? Is the expertise of the writer undermined by misstatements, factual errors, or omission of important details? To what extent does the writer adequately communicate the significance of the research to be undertaken? Scientific significance may be expressed in terms of actual or potential applications to technology *and/or* contributions to understanding fundamental principles or phenomena in nature.
- _____ 2. **Research Plan Coherence.** To what extent does the research plan have clear goals and objectives? Does the introductory material logically lead to the research problem to be addressed? Are the basis and rationale for the experimental approach clear?
- _____ 3. **Technical Expertise.** To what extent are the methods appropriate to the research questions/problems being addressed? Does the writer exhibit a sufficient grasp of the methodology to be used and what/how it would contribute to the research plan?

Writing Quality

- _____ 4. **Clarity of Writing.** Is the research plan well organized? Are sections, paragraphs, and sentences clearly written and free of ambiguity? Does the document conform to the page limits prescribed by the Graduate Handbook? To what extent does the writer use proper grammar, punctuation, spelling, and capitalization, etc.?
- _____ 5. **Quality of Figures.** Are the figures and schemes used by the writer legible, clearly described, and appropriately called out in the text? To what extent do the figures/schemes used by the author help to effectively communicate the key points of the research plan?
- _____ 6. **Citations and use of source material.** Does the writer appropriately and correctly cite the sources used to support the research plan? Does the writer misattribute or fail to attribute the published work of others relevant to the research plan?

Summary score

- _____ 7. Provide an overall rating of the Written Research Plan.

Comments for improvement:

| Summary Score | Grade |
|----------------------|----------|
| Score \geq 4 | <i>E</i> |
| $2 \leq$ Score $<$ 4 | <i>S</i> |
| Score $<$ 2 | <i>U</i> |