1. Purpose and Expectations

Every graduate student in Chemistry must demonstrate proficiency in his/her dissertation research area, the ability to independently develop an original research topic, and the ability to communicate these ideas effectively using concise scientific writing.

2. Exam Structure and Content

The exam consists of two, five-page written research proposals. The first proposal focuses on the student's dissertation research. The second proposal should describe an original research idea developed independently by the student that lies within the same sub-discipline of chemistry but which is outside the scope of the student's dissertation research.

The dissertation research proposal should provide an introduction to the research problem, an outline of the research goals and objectives, a description of the progress to date, and a delineation of the path forward. The original research proposal should provide an introduction to the research problem, the background and significance of the problem, and a description of the methods that will be used to address the research problem. The student should be particularly careful to emphasize the original aspects of the proposal.

Each document must be no more than five typed single-spaced pages (12-point font), including references and figures. The documents must adhere to high academic integrity standards, with appropriate attribution/citation of content and ideas on par with what is expected for publishing articles in peer-reviewed scientific journals (see the American Chemical Society's Ethical Guidelines to the Publication of Chemical Research for further details regarding the citing of references and plagiarism.)

The student may consult the Chair of the Qualifying Exam Committee regarding the exam structure, appropriate proposal topics, etc. The student shall not consult other faculty, including the student's dissertation advisor, about the scientific content of the research proposals.

3. Administration

The student must obtain approval for the research proposal topics from the Chair of the Qualifying Exam Committee at least one month before the oral qualifying exam. The Qualifying Exam Committee Chair, in consultation with other Qualifying Exam Committee members as needed, has the discretion to decide whether the original research proposal topic is appropriate and distinct from the student's own dissertation research area. If the student fails to obtain said approval and the proposal is not found to be outside the scope of the student’s previous research (including any research conducted towards a previous MS degree), the student will automatically fail the exam.
At least one week prior to the oral qualifying exam, printed copies of the final written proposals must be distributed to:
   1) all members of the Qualifying Exam Committee
   2) the Chemistry department Graduate Student Affairs Officer, who will add it to the student's file for record keeping purposes.

The Qualifying Exam Committee will evaluate the written proposals during their deliberations at the oral qualifying exam and notify the student of the result by the end of the oral qualifying exam.

4. Evaluation, Reporting of Results, and Feedback policy.

The dissertation research proposal will be evaluated based on the student's demonstrated understanding of the research area, the ability to clearly explain the research objectives in the context of the field, the research progress to date, and the longer-term research plan.

The original research proposal will be judged on the student's ability to select and develop an independent research topic, to explain how the research proposal relates to and will advance the current status of the field, and to provide a plausible strategy for carrying out the research.

The written examination will be graded on a pass/fail basis. Note that failure to adhere to the exam guidelines specified here provides sufficient grounds for failing the student on the written qualifying exam.

Formal notification of the exam results will be shared verbally with the student at the oral exam. Written records will be sent to the Chemistry department and the Graduate Division. If the student does not pass the written exam, the Committee Chair will provide written comments explaining this decision to the Graduate Student Affairs Officer.

The student may request additional feedback regarding the proposals from the Chair and other members of the Qualifying Exam Committee.

5. Retake Policy

If the student does not pass the written qualifying exam, the Qualifying Exam Committee may allow the student one additional attempt to revise and re-submit the unsatisfactory document(s). If the Committee allows the student a second attempt, the Committee will decide whether one or both documents need to be revised and will establish an appropriate time line for resubmission. Resubmission and re-evaluation of the documents must be completed within 6 months of the original written qualifying exam date.