

WRITTEN QUALIFYING EXAM

Department of Chemistry
Chemistry Doctoral Program
University of Massachusetts Boston

PURPOSE

To be admitted to candidacy for a doctoral degree, each student will be subject to a Written Qualifying Exam and an Oral Qualifying Exam. The WQE is designed to test each student's mastery of fundamental material covered in the core courses and elective courses of the Biological, Inorganic, Organic, Physical/Analytical and Green Chemistry doctoral tracks. The written tests are meant to determine if a student has acquired broad mastery of material expected of a general doctoral student in chemistry and of the material expected of one with a commitment to a particular research track.

EXAM TIMING & ENROLLMENT

Students are eligible to take WQEs once they have satisfactorily completed their literature seminar in their second semester of entering the program. Doctoral students sit for the WQE during their second and third year, ideally semesters three through five. **Prior to every exam period students must complete the Written Qualifying Exam Enrollment Form in agreement with their research advisor.**

TEST PROCEDURE AND STRUCTURE

The WQE is typically administered the third week of January and June. The Chemistry Department offers an exam in each doctoral track: 1) Biological Chemistry, 2) Inorganic Chemistry, 3) Organic Chemistry, 4) Physical/Analytical Chemistry, and 5) Green Chemistry. Specific exam dates are announced after exam enrollment forms are submitted. The test period will allow students to write for two exams. Any additional exams must be approved by the student's advisor and graduate program director.

For each exam a single faculty member will be responsible for selecting a journal article, writing the examination questions pertaining to that article, and grading student responses to said questions. Research articles are forwarded to students three weeks before the test date. Students will study, research, and learn the background, methodologies, results, and conclusion of the research papers. It is suggested that students not limit their study to only the given paper and textbooks from their graduate courses.

On the testing day, students should report early to the Chemistry Conference Room (S-1-089) for exam distribution. Those arriving late are allowed only the remaining time in the session. Exam sessions are scheduled for no more than one hour and ten minutes. Students will not have access to the research articles during the examination process unless otherwise stated by the faculty member administering the exam. They will be provided with a test booklet for each exam and may use calculators during the test. No notes, books, supplementary material, etc.

may be used. Use of a computer and specific software will be permitted if announced in advance and may be limited to only certain tests (e.g. for quantum mechanical calculations related to a physical chemistry test).

WQE GRADING AND COMPLETION

Students successfully complete the WQE requirement by passing a total of four exams, at least two based on the student's doctoral track. To pass a single exam a candidate must earn 7.0 points minimum out of 10.0 total points. Students who fail to pass four exams after sitting for six exams must meet with their Dissertation Committee to discuss preparations to take, at most, two additional exams. If the student fails to pass four exams out of eight, he will not earn candidacy into the doctoral program.

Written Qualifying Exam Enrollment Form

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Student's Name

ID Number

Research Track

Exam Area	Semester	Year	Advisor's Approval <i>Initial and date</i>	Exam Pass/Fail
1.				
2.				
3.				
4.				
5.				
6.				
<i>Exam enrollment below must be approved by the student's Dissertation Committee.</i>				
7.				
8.				

Students are responsible for reading and understanding the Written Qualifying Exam policies and guidelines. This completed exam enrollment form must be returned to the Chemistry Department Graduate Program Assistant for the student's records.

After submitting the registration form students cannot alter examination plans and should arrange any travel plans around their examination schedule. Should any circumstances prevent a student from writing an exam the student must immediately contact his Advisor and the Graduate Program Director.