



College of Natural & Social Sciences  
Dept. of Chemistry & Biochemistry

## Memorandum

**To:** Department  
**From:** Graduate Studies Committee  
**Date:** 02-23-2022

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Only students who have successfully completed the prospectus requirement shall be allowed to register for the comprehensive exam class (CHEM 5960).

The comprehensive exam consists of two parts: A presentation of the student's research in the graduate program at Cal State LA, and an oral examination that assesses the student's ability to address complex scientific problems, including reviewing and critiquing the scientific literature at a level of expertise beyond that acquired during undergraduate studies. The oral examination is based on three papers related to the student's area of research.

The date and time for the research presentation and the oral examination shall be selected by the student's committee and the student. The research presentation shall be the first part of the exam. The second part (the oral examination) must take place within three weeks following the initial research presentation. One week prior to the date of the oral examination, the student's committee will select three papers related to the student's research on which the examination will be based. These papers may include papers cited in the student's prospectus. The Committee Chair has the main responsibility for selecting these papers. The committee will also write five questions relating to the material in these papers. These questions may range from details about experimental methodology to the theory and background of the work to the broader impact of the research. The papers will be given to the student one week prior to the scheduled exam. Students shall be allowed to use copies of the papers and notes during the exam.

The student will be asked to provide answers to the five questions during the oral examination. The questions may lead to a broader scientific discussion about the issues at hand. Students will be evaluated primarily on the overall understanding of the science discussed in the papers. Knowledge of critical details sufficient for an explanation of the manuscripts at the level of a MS in Chemistry is expected. The evaluation of the student's answers is based on a grading rubric similar to what was developed for our graduate seminars. These categories are listed on the next page. An overall grade of B or better is required to pass the comprehensive exam.

<b>COMPREHENSIVE EXAM GRADING CATEGORIES</b>	Exceeds expectations	Meets expectations	Needs improvement	Not satisfactory
Understanding of current literature related to the assigned papers				
Answers emphasize analysis over paraphrasing text				
Critical analysis of original data is emphasized				
Presentation shows knowledge of the molecular sciences pertinent to the assigned papers at a level that is appropriate for a Masters student				
Experimental details are well understood				
Jargon including abbreviations are correctly explained				

Overall grade:

Additional notes: