

### Thesis M.S. (Plan A) Assessment Rubric, Oral Qualifying Exam

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<b>1. Students will be able to summarize key concepts across a broad base of chemistry, including at least four of the core subdisciplines (Analytical, Biological, Inorganic, Organic, and Physical).</b>				
<b>Score:</b>	Student lacks basic knowledge in all areas	Student displays knowledge, but is weak in several key concepts	Student displays command across all areas, or great command in several areas	Student displays great knowledge of chemistry across numerous disciplines
<b>2. Students will be able to discuss the chemistry of their chosen subdiscipline or thematic area of chemistry, such as biosensors, materials chemistry, synthesis, etc.</b>				
<b>Score:</b>	Student lacks the knowledge to discuss their subdiscipline.	Student can discuss their subdiscipline with prompting.	Student can discuss the subdiscipline.	Student can discuss their subdiscipline with authority.
<b>3. Students will communicate chemical topics effectively, in oral and in written contexts</b>				
<b>Score:</b>	Student cannot clearly communicate chemical topics in either written or oral contexts.	Student can sometimes communicate effectively in written or oral contexts.	Student can communicate effectively in written and oral contexts	Student is a very effective and compelling writer and speaker.
<b>4. Students will interpret and demonstrate procedures from the literature.</b>				
<b>Score:</b>	Student is not able to interpret experimental procedures from the literature.	Student is not able to interpret experimental procedures from the literature without significant assistance.	Student is able to interpret experimental procedures from the literature with some assistance.	Student is able to interpret experimental and carry out procedures from the literature.
<b>5. Students will apply the principles and applications of modern instrumentation, experimental design, and data analysis and evaluate the significance of outcomes in their area of specialization.</b>				
<b>Score:</b>	Student lacks the ability to assemble and apply methodology.	Student can apply methodology with guidance from others.	Student can read and apply literature methods.	Student can identify and apply literature methods to their research.
<b>6. Students will analyze their collected experimental data and examine the significance of their results.</b>				
<b>Score:</b>	Student is not able to determine the significance of their results.	Student is not able to determine the significance of the results without a great deal of assistance.	Student can see the significance of the data with some assistance.	Student can examine their data and determine the significance.

### Committee Signatures

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