

CHE Ph.D. Assessment Rubric, Oral Qualifying Exam

Outcome	0	1	2	3
<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 of some key concepts, but is weak in others	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 assemble and develop appropriate methods for addressing research questions within their area of expertise, and will develop, modify, and apply methodology to the solution of unfamiliar types of problems.</b>				
<b>Score:</b>	Student lacks the ability to assemble and apply methodology.	Student can read and apply literature methods.	Student can identify and apply literature methods to their research.	Able to develop and apply advanced concepts to research problems
<b>3. Students will evaluate and critique conclusions presented by other researchers in scientific communications.</b>				
<b>Score:</b>	Student has difficulty understanding the literature or seminars in their field.	Student is aware of and understands other work but is unable to determine relevance.	Student is aware of literature work	Student is aware of current literature and identifies what is well-founded and what is speculation.
<b>4. Students will demonstrate professional independence and initiative, and will have taken responsibility for their own work.</b>				
<b>Score:</b>	Student constantly requires prompting from the advisor in order to advance their research project.	Student is leading the project and operates with periodic guidance from advisor.	Student is leading the project and operates with minimal guidance from advisor.	Student is leading the project and operates without needing guidance from advisor.

Committee Member Signatures

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