**Carnegie Mellon Department of Chemistry**

**Candidacy Exam Assessment Form – Oral Preliminary Component**

COMMITTEE CHAIR: PLEASE RETURN THIS FORM TO VALERIE BRIDGE WITHIN 1-3 DAYS.

**Student** **Date of Exam**

**Committee Member Completing this Form**

**Criteria 1. Substantial level of understanding of the theoretical and/or experimental background of the current project(s) and in foundational areas relevant for thesis work in the field**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Excellent** (readily makes connections)  | **Good** (solid knowledge, appropriate for 2nd yr) | **Pass** (surface knowledge; better with prompting) | **Deficient** (significant gaps, major coaching needed) | **Fail** (unsuccessful even with heavy coaching) |
| Puts project aims in context of primary literature  |  |  |  |  |  |
| Can effectively discuss concepts and methods related to the written report and oral presentation |  |  |  |  |  |
| Facile with using chemistry fundamentals in discussion |  |  |  |  |  |
| **Overall Background Knowledge** |  |  |  |  |  |

**Criteria 2. Appropriate progress in obtaining and interpreting results to indicate ability to complete the Ph.D. successfully and with increasing independence**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Excellent** (equiv. to publication or conferencepresentation) | **Good** (good trajectory for timely Ph.D.) | **Pass** (fair progress, should improve) | **Deficiencies** (pace is slow; unclear about understanding of results) | **Fail** (serious concerns about ability to progress) |
| Explains goals and rationale for methods used |  |  |  |  |  |
| Appropriately interprets results and/or addresses hypothetical questions effectively  |  |  |  |  |  |
| Facile with fundamentals to explain techniques and results |  |  |  |  |  |
| “Thinks on his/her feet” and reasons independently |  |  |  |  |  |
| **Overall Results**  |  |  |  |  |  |

**Criteria 3: Ability to discuss substantively his/her ongoing work, including near-term future research plans (6-12 months) as well as the context, rationale, major questions and methods for 1-2 years of his/her thesis work.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Excellent** (independent and feasible ideas for current work and the future) | **Good** (viable ideas for current work, shows some independent thinking for future) | **Pass** (some good ideas on current and, future work but not yet well considered) | **Deficiencies** (limited effort, heavy coaching needed) | **Fail** (serious concerns about ability to progress) |
| Engages effectively in discussion of alternative interpretations and approaches to resolve them (rigor) |  |  |  |  |  |
| Has in-depth understanding of next steps in relation to questions for thesis (vision, not operating as a technician)  |  |  |  |  |  |
| Discusses new ideas for his/her project or for future thesis projects (creativity) |  |  |  |  |  |
| **Overall Future Plans** |  |  |  |  |  |

**Criteria 4: Scientific writing appropriate for Ph.D. level work**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Excellent** (could be used directly in proposal or manuscript) | **Good** (clear, some editing required) | **Pass** (Overall understandablebut some parts unclear, needs heavy editing, understandable overall) | **Deficiencies** (logic and organization poor, major revision required) | **Fail** (needs remedial writing help) |
| **Overall Writing Quality** (use average of advisor’s and committee chair’s written assessments on final written report form for final outcome) |  |  |  |  |  |

**Outcome of Exam** (check one):

 **High Pass** indicates outstanding performance based on **overall assessments of excellent or good in all areas.**

 **Pass** indicates clearly satisfactory knowledge of both fundamental theory and research methods, along with satisfactory research progress that is on a trajectory to successful completion of the Ph.D. **Students should have at least pass in all four areas.**

 **Conditional pass** indicates that deficiencies in 1-2 criteria must be addressed over a short period (2-3 weeks) and the additional work is required to receive a pass. The student be required either to revise the written report or otherwise address deficiencies in writing or in person as requested by the committee **(specifics to be described below)**.

 **Failure** indicates deficiencies in most criteria or failure in one or more criteria. Such performance leads to grave concerns about a student’s research progress, background knowledge, future directions, and/or writing such that the advisor and committee question the student’s ability to complete a Ph.D. in this research area in a timely way based on current rate of progress. **If a student fails, the committee must agree by majority on one of the following actions:**

 **Revise and have re-exam in the current group.** The student may repeat the oral exam and revise the written report, continuing as a member of the group(s) on probation. The student must pass fully, without conditions, at the re-exam within 2-4 months to continue in the group and the Ph.D. program, with the specific deadline set by the Advisory Committee in consultation with one of the GPC Co-Chairs. Financial support from the advisor for the student must be continued during the probation. The student must pass fully on the second attempt to remain in the Ph.D. program.

 **Termination from group with option to change groups on a probationary basis.** Note that in the case of co-advisors, a new, signed thesis agreement is needed if the student wishes to remain with one of the current advisors. If a change of groups is possible, the student must then fully pass the progress report requirement and oral preliminary exam in the new research group by the end of the sixth semester in residence to regain good standing and remain in the Ph.D. program. If the student is not able to join a new group officially within a 1-2 month grace period (funding for a grace period is not guaranteed), he/she cannot continue in the Ph.D. program. Students must have 3 or more months written notice in a probation letter prior to this result.

 **Termination from the Ph.D. program.** The student cannot continue in the Ph.D. program and may transfer to the M.S. program, although funding cannot be guaranteed for M.S. students. Up to 6 units from the written research progress report may be applied toward the M.S. pending approval from their advisor and the GPC Co-Chairs. This outcome is reserved for re-exams or for students who have had 3 or more months written notice in a probation letter.

 ***Note that the student may appeal the outcome to the department head within 7 days of receiving the written outcome by following the university’s Summary of Graduate Student Grievance Procedures.***

**If the outcome is conditional pass or failure, what is the student required to do to earn a pass?** Check all that apply.

 Revisions to the written report

 Answering additional questions in writing

 Re-exam with presentation of additional results to the advisory committee

 Other

**Specific expectations for re-exam/revisions, if any (attach separate document or email, as needed):**

**The deadline for re-exam/revisions is .** **Please provide sufficient details about the expectations so that the criteria for passing are clear (continue on back or attach separate pages, if needed).** Please consult with the GPC Co-Chairs before setting the deadline for a student who is or will be on probation.

**Feedback for all students (attach email or separate page, as needed)**

**Overall strengths:**

**Areas for improvement:**

**IMPORTANT: The Advisory Committee Chair should normally submit the outcome and feedback in writing within one week to the student, Advisory Committee, and Valerie Bridge for the Graduate Program Committee. He/she will circulate the draft by email to the Advisory Committee and, in the case of failure, also the GPC Co-chairs, which is essential to ensure sufficient feedback about deficiencies and clear expectations for revisions or a re-exam. In the case of pass or high pass, a scanned copy of handwritten feedback is acceptable.**

**Advisory Committee Members**

**Advisor(s)**   **Chair**

**Member** **Member**

**Signature of Committee Chair:**  **Date:**