



**GRADUATE PROGRAM IN PHARMACEUTICAL SCIENCE
COMPREHENSIVE AND DOCTORAL EXAMINATION EVALUATION FORM**
(Approved by GPC 05/19/2009)

CHOOSE ONE:

- COMPREHENSIVE EXAMINATION EVALUATION
- DOCTORAL EXAMINATION EVALUATION

STUDENT NAME: _____

COMMITTEE MEMBER: _____

DATE OF EXAMINATION: _____

Learning Outcomes	Indicators	Level of Achievement 1=Low; 5=High (Circle one)
Acquire expert knowledge of biological, chemical, and analytical processes related to pharmaceutical sciences.	Student demonstrates mastery of skills necessary to conduct a thorough literature review. <ul style="list-style-type: none"> • Familiarity with information retrieval resources (computer literacy, database searching, use of internet, library resources) • Ability to conduct an effective literature search. • Ability to identify and analyze major contributions to the field. 	1 2 3 4 5 NA
	In any written work: <ul style="list-style-type: none"> • Major contributors to the field are included in the bibliography • Landmark papers are identified and are cited in the appropriate context • Background section conveys understanding of major contributions, the questions that have been addressed, and how these contributions have resulted in the current status of the field 	1 2 3 4 5 NA
Master a field of scholarship related to a specific research topic.	Student demonstrates knowledge and understanding of the topic that is appropriate for their experience and level of education: <ul style="list-style-type: none"> • Major contributors to the field are identified along with their contributions. • Student demonstrates knowledge and understanding of recent advances in the field, as well as who contributed what work and why it was important. • Student is able to explain the evolution of thinking in the field in a way that is clear and understandable to scientists not familiar with the work. 	1 2 3 4 5 NA
<div style="display: flex; justify-content: space-between;"> Meets or Exceeds the Standard Partially Meets the Standard Does Not Meet the Standard </div>		
<div style="display: flex; justify-content: space-around;"> </div>		

Learning Outcomes	Indicators	Level of Achievement 1=Low; 5=High (Circle one)
Use the scientific method to generate, analyze, and interpret scientific data relevant to the identification, analysis, and use of therapeutic agents.	Student demonstrates the ability to identify an important research question: <ul style="list-style-type: none"> • Significant research issues and aims are identified in relation to an appropriate research context and an appropriate body of theory and knowledge • The student has derived from the aforementioned issues a set of scholarly questions. 	1 2 3 4 5 NA
<ul style="list-style-type: none"> • Generate mechanistic hypotheses based on prior evidence 	Student demonstrates the ability articulate a mechanistic hypothesis and an approach for testing the hypothesis <ul style="list-style-type: none"> • Hypothesis is clearly stated and asks a ‘how’ or ‘why’ question. • Predictions follow logically from the hypothesis and are testable. 	1 2 3 4 5 NA
<ul style="list-style-type: none"> • Derive specific predictions that are hypothesis driven • Plan detailed experimental procedures that test specific predictions 	Student demonstrates the ability design a detailed experimental plan which: <ul style="list-style-type: none"> • Tests specific predictions • Demonstrates appropriate knowledge and use of the latest or the most appropriate research methodologies and analytical techniques • Is likely to produce/has produced definitive, interpretable results 	1 2 3 4 5 NA
<ul style="list-style-type: none"> • Gather data via experimentation 	Student demonstrates the ability to understand and appropriately use statistical methods to analyze and evaluate data	1 2 3 4 5 NA
<ul style="list-style-type: none"> • Appropriately analyze and interpret data . 	Student demonstrates the ability to generate interpretations and conclusions that are justified by experimental data: <ul style="list-style-type: none"> • Results are based on a well-crafted experimental plan and rigorous scientific methods. • Interpretations and conclusions are justified and follow logically from the data. • Analysis is thorough and unbiased (all results are considered, alternate interpretations are considered). 	1 2 3 4 5 NA
Meets or Exceeds the Standard	Partially Meets the Standard	Does Not Meet the Standard
▲	▲	▲

Learning Outcomes	Indicators	Level of Achievement 1=Low; 5=High (Circle one)
<p>Communicates research results and ideas in a clear and compelling way. (Oral)</p>	<p>Student demonstrates the ability to communicate research ideas, results, and conclusions, effectively:</p> <ul style="list-style-type: none"> • Arguments are logical and coherent. • Ideas are articulated clearly and are understandable to a range of audiences. • Unfamiliar terminology is defined. • Content is well organized and has appropriate breadth and depth. • Audiovisual materials are appropriate, of good quality, and effective. • Student answers questions clearly and accurately, and is able to defend interpretations and conclusions. 	<p>1 2 3 4 5 NA</p>
	<p>The thesis/comprehensive exam document (when applicable):</p> <ul style="list-style-type: none"> • Is written in English • Is understandable to scientists familiar with the field of work • Is satisfactory in its literary and technical presentation and structure with a full bibliography and references • Is free of grammatical and stylistic errors • Embodies the results of a research program which may reasonably be expected of a student after three or more years of full-time effort, formulated and carried out by the candidate in consultation with the research mentor • Consists of the candidate’s own account of his/her investigations • Indicate in what respect the findings advance the study of the subject • Represent a distinct and significant contribution to the subject • Demonstrates the exercise of critical judgment with regard to both the candidate’s own work and that of other scholars in the field • Demonstrates the candidate’s ability to design and implement an independent research project • Takes due account of previously published work on the subject • Makes clear the sources from which information has been derived, the extent to which the work of others has been used, and the areas which are claimed as original • Contains elements which, after necessary revisions, would merit publication in a medium appropriate to the 	<p>1 2 3 4 5 NA</p>
<p>Meets or Exceeds the Standard</p>	<p>Partially Meets the Standard</p>	<p>Does Not Meet the Standard</p>
		