



# Defense of MS Thesis Result

(See Article 9.11 of the Graduate School Policy Handbook)

This form is submitted to [gsbs-forms@bcm.edu](mailto:gsbs-forms@bcm.edu) or in the Graduate School dropbox in Room N204

Student Name: \_\_\_\_\_ BCM ID #: \_\_\_\_\_  Yes

Graduate Program: \_\_\_\_\_ Are you in the MD/PhD program?  No

Completion of all requirements for the M.S. degree occurs with submission of final (signed) thesis.

<b>Defense Date:</b> _____	<b>Defense Result:</b> <input type="checkbox"/> PASS <input type="checkbox"/> FAIL
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If there are any significant deficiencies of the thesis (other than typographical errors) that must be corrected before final approval, indicate directly below or on attached pages:

Required Approvals before Submission				
	Printed Name	Signature	Date	<b>INITIAL</b> <small>If present at defense</small>
<b>Committee Chair:</b>				
<b>Committee Member:</b>				
<b>Committee Member:</b>				
<b>Committee Member:</b>				
<b>Committee Member:</b>				
<b>Committee Member:</b>				
<b>Committee Member:</b>				
<b>Committee Member:</b>				
<b>Graduate Prog. Director:</b>				

**PLEASE RETURN THIS FORM, ALONG WITH COMPLETED DEFENSE-WRITTEN AND DEFENSE-ORAL RUBRICS, TO THE GRADUATE SCHOOL OFFICE IMMEDIATELY FOLLOWING THE DEFENSE.**

GSBS Approval after Submission		
<b>Graduate School Authorizing Signature:</b>		
	<i>Signature</i>	<i>Date</i>

# Defense Oral Rubrics

Student Name: \_\_\_\_\_

Program: \_\_\_\_\_

Criterion	Unacceptable = 1 pt	Acceptable = 2 pts	Very Good = 3 pts	Outstanding = 4 pts	Score
Background scientific knowledge	Displays general knowledge of biomedical sciences appropriate for a baccalaureate student	Demonstrates basic, general knowledge of biomedical sciences, consistent with graduate level training	Demonstrates in-depth understanding of biomedical sciences and can apply them to their field of study	Demonstrates in-depth understanding of fundamental biomedical sciences, related research literature, and implications to closely related field of study	
Discipline-specific knowledge	Knowledge of bioscience related to the student's research area fails to adequately incorporate current research literature	Displays an awareness of the literature in the area of research	Exhibits a command of the literature related to area of research	Displays evidence of critical assessment and synthesis of the research literature yielding enhanced knowledge or bioscience	
Oral presentation skills	<ul style="list-style-type: none"> <li>• Reads material from slides</li> <li>• Not comfortable with topic/presentation; appears unpracticed</li> <li>• Presentation/slides are poorly prepared and/or missing key information</li> <li>• Presentation is unfocused</li> <li>• Visual materials poorly support key points in presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Relies too much on slides during presentation</li> <li>• Somewhat comfortable with the topic/presentation</li> <li>• Presentation is adequately paced</li> <li>• Slides are appropriately paced</li> <li>• Visual materials support key concepts in presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Uses slides as a guide</li> <li>• Is easily understandable</li> <li>• Comfortable with topic/presentation; establishes eye contact with audience</li> <li>• Overall presentation is effectively organized</li> <li>• Visual materials facilitate understanding of abstract or difficult concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Using slides as a guide, give detailed explanations that are easily understandable</li> <li>• Keeps appropriate eye contact with audience</li> <li>• Effective speaking style</li> <li>• Presentation is well organized</li> <li>• Slides effectively support and enhance the presentation</li> </ul>	
Defense of thesis	<ul style="list-style-type: none"> <li>• Does not adequately defend research; Fails to respond adequately to key questions</li> <li>• Responses are weak and show little to no understanding of the question/research</li> <li>• Consistently fails to be appropriately responsive to questions unless prompted</li> <li>• Structure of responses is weak and or difficult to follow</li> </ul>	<ul style="list-style-type: none"> <li>• Adequately defends research; answers questions but with little in sight</li> <li>• Responses show basic understanding of research methods and findings</li> <li>• Generally independently responsive to questions with occasional prompting or leading required</li> <li>• Structure of response adequate, but some clarification/expansion of answers may be required</li> </ul>	<ul style="list-style-type: none"> <li>• Competently defends research; provides helpful answers to questions</li> <li>• Responses display an in-depth comprehension of the research, including hypothesis, experimental design and significance</li> <li>• Independently responsive to questions with limited need for prompts or clarification</li> <li>• Structure of responses provides evidence of reflective organization of information</li> </ul>	<ul style="list-style-type: none"> <li>• Masterfully defends research; provides clear and insightful answers to questions</li> <li>• Responses relate the hypothesis, methods, results and significance of the proposed research to more abstract ideas in the area of specialization</li> <li>• Independently responsive to questions</li> <li>• Structure and breadth of content or responses provides evidence of reflective and creative organization of information</li> </ul>	

**TOTAL:**

**Major Advisor:**

\_\_\_\_\_ Printed Name

\_\_\_\_\_ Signature

\_\_\_\_\_ Date

**Graduate Program Director:**

\_\_\_\_\_ Printed Name

\_\_\_\_\_ Signature

\_\_\_\_\_ Date

# Defense Written Rubrics

Student Name: \_\_\_\_\_

Program: \_\_\_\_\_

Criterion	Unacceptable = 1 pt	Acceptable = 2 pts	Very Good = 3 pts	Outstanding = 4 pts	Score
Knowledge of fundamental concepts	<ul style="list-style-type: none"> <li>•Fails to display general knowledge of biomedical concepts</li> <li>•Lacks a good understanding of basic concepts, processes or conventions of the subject matter</li> </ul>	<ul style="list-style-type: none"> <li>•Demonstrates basic, general knowledge of biomedical sciences, consistent with graduate level training.</li> <li>•Know the subject matter</li> </ul>	<ul style="list-style-type: none"> <li>•Demonstrates an in-depth understanding of biomedical concepts</li> <li>•Shows understanding and mastery of the subject matter</li> </ul>	<ul style="list-style-type: none"> <li>•Exemplifies an in-depth and abstract knowledge of foundational biomedical concepts, and can discuss implications to related fields of inquiry</li> <li>•Exhibits command and authority over subject matter</li> </ul>	
Ability to evaluate research literature	<ul style="list-style-type: none"> <li>•Demonstrate knowledge of factual material limited to a level appropriate for an undergraduate student</li> <li>•Fails to identify relevant literature in the field of inquiry</li> </ul>	<ul style="list-style-type: none"> <li>•Demonstrates an awareness of the research literature in the field of inquiry</li> <li>•Identifies some unanswered questions/gaps in the literature</li> </ul>	<ul style="list-style-type: none"> <li>•Understands and can integrate the current research literature in the field of inquiry</li> <li>•Successfully identifies and illustrates the importance of unanswered questions/gaps in the literature</li> </ul>	<ul style="list-style-type: none"> <li>•Demonstrates a command and deep understanding of the current research literature in the field</li> <li>•Identifies unanswered questions/gaps in the literature and can relate these to more abstract or inter-related questions/theories beyond the immediate topic</li> </ul>	
Research design and data analysis	<ul style="list-style-type: none"> <li>•Uses incorrect, inappropriate or outdated methodology</li> <li>•Data analysis is inappropriate or confused</li> <li>•Identifies no weaknesses in interpretation</li> </ul>	<ul style="list-style-type: none"> <li>•Uses limited number of correct methodological approaches</li> <li>•Data analysis is acceptable, but fails to explore all possibilities and misses connections</li> <li>•Identifies no weaknesses in interpretation</li> </ul>	<ul style="list-style-type: none"> <li>•Uses multiple correct methodological approaches</li> <li>•Data analysis is solid but misses opportunities to explore interesting issues or connections</li> <li>•Identifies some weaknesses in data interpretation</li> </ul>	<ul style="list-style-type: none"> <li>•Employs multiple and creative methodological approaches</li> <li>•Analysis is comprehensive, complete, sophisticated and convincing</li> <li>•Identifies most/all weaknesses in data interpretation</li> </ul>	
Ability to draw conclusions	<ul style="list-style-type: none"> <li>•Little discussion of research findings</li> <li>•Displays poor grasp of material</li> <li>•Conclusion/summary not supported by findings</li> </ul>	<ul style="list-style-type: none"> <li>•Discussion is present, but lacking depth and/or key concepts</li> <li>•Conclusion/summary not entirely supported by findings</li> </ul>	<ul style="list-style-type: none"> <li>•Discussion is sufficient with few errors, but greater integration with past research is needed</li> <li>•Conclusion/summary based on outcomes and appropriate</li> <li>•Includes some recommendations</li> </ul>	<ul style="list-style-type: none"> <li>•Discussion is well-constructed, accurate and engaging</li> <li>•Conclusions/summary and recommendations are appropriate and clearly based on outcomes</li> </ul>	
Rigor & Reproducibility	<ul style="list-style-type: none"> <li>•Assessment of prior research lacks rigor</li> <li>•Potential biases &amp; biological variables were not considered in research design</li> <li>•No authentication of biological or chemical resources</li> </ul>	<ul style="list-style-type: none"> <li>•Identifies major weaknesses in rigor of prior research</li> <li>•Potential biases and biological variables were superficially addressed</li> <li>•Some authentication of research resources</li> </ul>	<ul style="list-style-type: none"> <li>•Identifies major weaknesses in rigor of prior research</li> <li>•Potential biases and biological variables were superficially addressed</li> <li>•Some authentication of research resources</li> </ul>	<ul style="list-style-type: none"> <li>•Demonstrates in-depth understanding of rigor of prior research</li> <li>•Sophisticated research design and analysis fully addressed potential biases and biological variables</li> <li>•All resources authenticated in timely manner</li> </ul>	
Writing Skills	<ul style="list-style-type: none"> <li>•Writing does not effectively communicate message</li> <li>•Numerous grammatical and/or spelling errors</li> <li>•Organization is poor</li> <li>•Quality of figures and tables is poor</li> <li>•Citations are missing or inappropriate</li> </ul>	<ul style="list-style-type: none"> <li>•Writing is weak, but essential elements are present</li> <li>•Some grammatical and/or spelling errors present</li> <li>•Organization is adequate</li> <li>•Figures and tables are complete and convey information effectively</li> <li>•Citations are appropriate</li> </ul>	<ul style="list-style-type: none"> <li>•Writing is adequate</li> <li>•Few to no grammatical or spelling errors</li> <li>•Organization is generally logical but with some minor gaps</li> <li>•Presentation of figures and tables enhances writing effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>•Writing is publication quality</li> <li>•Rules of grammar, syntax and spelling are consistently followed</li> <li>•Organization is excellent with smooth transitions</li> <li>•Figures and tables reflect careful consideration of effective data presentation</li> <li>•Skillful use of citations</li> </ul>	
<b>TOTAL:</b>					

Major Advisor:

\_\_\_\_\_ Printed Name

\_\_\_\_\_ Signature

\_\_\_\_\_ Date

Graduate Program Director:

\_\_\_\_\_ Printed Name

\_\_\_\_\_ Signature

\_\_\_\_\_ Date