

Assessment form for Master of Science students in the Department of Zoology and Physiology

Student W#: _____ **Date** _____

This form is used to assess the M.S. program in the Department of Zoology and Physiology. The M.S. candidate will provide this form and a copy of their curriculum vitae to each member of their graduate committee at the oral defense of the thesis. Following the defense, committee members will fill out the form and deposit it in an envelope. The outside-of-the department committee member will seal the envelope and deliver it to the office of the Department of Zoology & Physiology. GAB will summarize the information and present a report to the Department Head. Copies of this Assessment Form can be downloaded at http://www.uwyo.edu/zoology/grad_degrees/.

Note: The Department Head will withhold final approval of graduation forms until the assessment forms have been received in the Department of Zoology & Physiology office.

Learning outcomes for M.S. students.

1. Comprehend and synthesize advanced knowledge in a specific area of biology.
2. Collect and analyze data to address a research question.
3. Summarize research findings and communicate them effectively in writing and orally.

For each outcome, check the appropriate boxes and provide comments explaining your assessment.

	Indicator	Exceeds expectations	Meets expectations	Below expectations
Outcome 1 Comprehend and synthesize advanced knowledge in a specific area of biology.	1. Program of study incorporates advanced level courses in one or more focused areas in biology.	<input type="checkbox"/> Program of study mostly of advanced coursework. Student has acquired lab, field or data analysis skills beyond those expected of undergraduates. The student has developed expertise to the point where they can be the instructor for courses or workshops in their specialty areas.	<input type="checkbox"/> Program of study mostly of advanced coursework and the student has acquired lab, field or data analysis skills beyond those expected of undergraduate students.	<input type="checkbox"/> Program of study contains few advanced level courses and there is no clear focus in a specific area of biology. The student has not acquired lab, field or data analysis skills beyond those expected of undergraduate students.
	2. The thesis includes an overview of the subject area that indicates why the research topic is of interest.	<input type="checkbox"/> Student provides a superior summary of prior work that clearly articulates how their research is the next step in filling an important information gap.	<input type="checkbox"/> Student provides a reasonable framework for their research which indicates how their research fills an information gap.	<input type="checkbox"/> Student does not provide a framework for their research or indicate how it fills an information gap. Student does not appear to have knowledge of the antecedents to their research topic.
	3. The thesis shows an integration and synthesis of research findings with the existing body of knowledge in the research area.	<input type="checkbox"/> Student has a superior understanding of the knowledge base for their field. Student shows a high level of sophistication in integrating their results with the existing knowledge base and in suggesting future research directions.	<input type="checkbox"/> Student has a good understanding of the knowledge base for their field. Student articulates how their results conform with, extend, or contradict the existing knowledge base for their research area.	<input type="checkbox"/> There are major gaps in the student's understanding of the knowledge base for their field. The student is not able to articulate how their results conform with, extend, or contradict the existing knowledge base for their research area.

Outcome 1: Comments:

	Indicator	Exceeds expectations	Meets expectations	Below expectations
Outcome 2 Collect and analyze data to address a research question.	1. The extent and types of data collected by the student	<input type="checkbox"/> Student has collected original data sufficient to address multiple research questions.	<input type="checkbox"/> Student has assembled an appropriate data set to address a research question.	<input type="checkbox"/> Student has not assembled an appropriate data set to address a research question.
	2. The approaches used to analyze the data.	<input type="checkbox"/> Student has independently analyzed their data using novel approaches.	<input type="checkbox"/> Student used appropriate methods to analyze and visualize their data.	<input type="checkbox"/> Student has not used appropriate techniques to analyze and visualize their data.

Outcome 2: Comments:

	Indicator	Exceeds expectations	Meets expectations	Below expectations
Outcome 3 Summarize research findings and communicate them effectively in writing and orally.	1. Quality of oral presentation during public defense of thesis.	<input type="checkbox"/> Oral presentation is outstanding, comparable to the best talks at scientific meetings. Student has superior public speaking skills.	<input type="checkbox"/> Oral presentation is well-organized and delivered in a professional manner. Student has good public speaking skills.	<input type="checkbox"/> Oral presentation is disorganized and not delivered in a professional manner. Student has inadequate public speaking skills.
	2. Quality of visuals used during public defense of thesis.	<input type="checkbox"/> Slides exceptionally well-composed, informative and easy to read. Other visual aids are used (models, videos, demonstrations).	<input type="checkbox"/> Slides are well-composed, informative, and easy to read.	<input type="checkbox"/> Slides are poorly composed, difficult to read and do not convey pertinent information.
	3. Quality of writing in thesis.	<input type="checkbox"/> Thesis is exceptionally well-written with no grammatical errors or violations of scientific writing conventions. Thesis has been submitted to a peer-reviewed journal.	<input type="checkbox"/> Thesis is well written with few grammatical errors. Paragraphs are well-structured and there is a logical flow of ideas. Scientific writing conventions are followed. Thesis is publishable.	<input type="checkbox"/> Thesis is poorly written with grammatical errors and poor paragraph structure. There is not a logical flow of ideas. Scientific writing conventions are not followed. Not likely to be publishable.

Outcome 3: Comments: