

**Program Assessment Report  
DBCALFS ANSC MS Program  
University of Arkansas  
Academic Year 2022-2023**

**1. Animal Science Department, B111 AFLS, 575-3745**

**2. Department Mission:**

The Department of Animal Science shall be a leading authority of animal agriculture by means of innovative research, teaching and extension programs for all Arkansans and the world.

- 3. Program Goals:** The Department of Animal Science will 1) perform research from discovery to application that benefits the production efficiency, animal health/well-being, food safety/security, and sustainability of animal agriculture, **2) recruit, educate, and prepare for the future, a new generation of citizens that will provide expertise in food production, animal health/well-being, as well as human health and nutrition,** and 3) provide research-based livestock and forage information through non-formal educational methods for the sustainability and management of agricultural production systems to improve Arkansans quality of life.

**4. Student Learning Outcome #1:**

Graduate students will demonstrate a basic knowledge of statistics, an in-depth knowledge of their specific thesis research area and a general knowledge of other research in the Department. Areas of emphasis may include animal nutrition, genetics, physiology, muscle foods, parasitology and forages.

**A. Assessment Measure 1**

- If thesis student -- completion of the thesis and successful defense to the faculty, turning in thesis to graduate school.
- If non-thesis student – completion of oral exam by committee.
- Indirect

Summary of Findings:

- **0 students completed oral exams and graduated with non-thesis degrees.**
- **6 students completed oral exams and a thesis and graduated.**

**5. Student Learning Outcome #2**

Graduate students will demonstrate problem solving skills.

**A. Assessment Measure 2**

- During the final oral exam students will be assessed using rubrics by the faculty members serving on their respective graduate committees. Scores on the oral rubric in the 'Overall breadth of knowledge' and 'Quality of response to questions' sections, and scores on the written rubric (if thesis M.S. students) in the 'Overall quality of science', 'Contribution to discipline', and 'Experimental design implementation and interpretation' sections will be combined for an overall score for this learning outcome. Rubrics are included on the final pages of this report.

- Direct
- Major professor is responsible for distributing rubric during defense and collecting the data

#### Acceptable and Ideal Targets

- The target is that a majority of candidates at least 'Meets Expectations Well' on the rubric. Ideally all candidates will 'Meet Base Expectations'.

#### Summary of Findings:

- 4 students had both written and oral communication rubrics returned by at least one committee member (a range of 1 to 4 committee members scored each student on each rubric). The average score for the measurements used to assess problem solving was 2.94 with a range of 2.54 to 3.42. A single student received from a single reviewer marks within the 'Does Not Meet Expectations' category; all other marks were 'Meets Base Expectations' or above.

### 6. Student Learning Outcome #3

Graduate students will be able to communicate effectively in a) oral and b) written form.

- Oral Communication (rubric at end of report)
  - 4 students had the oral communication rubric returned by at least 2 committee members (a range of 2 to 4 committee members scored each student. The average score for the oral communication rubric was 3.16 with a range of 2.85 to 3.75. A single student received from a single reviewer marks within the 'Does Not Meet Expectations' category; all other marks were 'Meets Base Expectations' or above. 75% of the students were scored on the overall assessment as Meets Expectations Well or higher by all reviewers. A single student had a single reviewer who marked Meets Base Expectations.
- Written Communication (rubric at end of report)
  - 4 students had the written communication rubric returned by at least 1 committee member (a range of 1 to 4 committee members scored each student. The average score for the written communication rubric was 2.96 with a range of 2.4 to 3.6. There were no marks of 'Does Not Meet Expectations' on this rubric. 75% of the students were scored on the overall assessment as Meets Expectations Well or higher by all reviewers. A single student had a single reviewer who marked Meets Base Expectations.

### 7. Overall Recommendations

- Rubrics for assessing the Student Learning Outcomes #2 and 3 were used more frequently this year by mentors. Emphasis must continue to be placed on completing the rubrics at the conclusion of all defenses. And it should be emphasized that all committee members are to independently complete the rubrics.

### 8. Action Plan

- The Department's Administrative Assistant has digital copies of the rubrics. These rubrics were handed to major professors at the start of each defense. Each committee member is supposed to complete the rubric. As opposed to previous years, compliance improved. Rubrics were available for 4 of the 6 students who finished.

- We will continue to attempt to improve the rate of completion and return of these rubrics used for assessment.
- Faculty will continue to mentor M.S. students as they have successfully done in previous years.

<b>Attribute for ORAL</b>	<b>Does Not Meet Expectations</b> Provide a short explanation for each attribute that you select in this category (Equivalent to Benchmark =1 on ANSC Undergraduate Rubric)	<b>Meets Base Expectations</b> (Equivalent to Milestone = 2 on ANSC Undergraduate Rubric)	<b>Meets Expectations Well</b> Results BETWEEN a basic meeting of expectations and exceeding expectations (Equivalent to Milestone = 3 on ANSC Undergraduate Rubric)	<b>Exceeds Expectations</b> (Equivalent to Capstone = 4 on ANSC Undergraduate Rubric)
<b>Overall quality of presentation</b>	___ Poorly organized	___ Clearly organized	___ Clearly organized	___ Well organized (introduction, conclusion, sequenced material in the body, transitions)
	___ Poor presentation	___ Clear presentation	___ Clearer presentation	___ Professional presentation
	___ Poor communication skills	___ Good communication skills	___ Better communication skills	___ Excellent communication skills
	___ Slides and handouts difficult to read	___ Slides and handouts clear	___ Slides and handouts good	___ Slides and handouts outstanding
<b>Overall breadth of knowledge</b>	___ Presentation unacceptable	___ Presentation acceptable	___ Presentation good	___ Presentation superior
	___ Presentation reveals critical weakness in depth of knowledge in subject matter	___ Presentation reveals some depth of knowledge in subject matter	___ Presentation reveals adequate depth of knowledge in subject matter	___ Presentation reveals exceptional depth of subject knowledge
	___ Presentation does not reflect well developed critical thinking skills	___ Presentation reveals average critical thinking skills	___ Presentation reveals above average critical thinking skills	___ Presentation reveals well developed critical thinking skills
	___ Presentation is narrow in scope	___ Presentation reveals the draw from knowledge in several disciplines	___ Presentation reveals the draw from knowledge in several disciplines	___ Presentation reveals the ability to interconnect and extend knowledge from multiple disciplines
	___ No application to ANSC	___ Application to ANSC evident	___ Application to ANSC evident	___ Presentation shows clear application to ANSC
<b>Quality of response to questions</b>	___ Responses are incomplete or required prompting	___ Responses are complete	___ Responses are more complete	___ Responses are eloquent
	___ Arguments are poorly presented	___ Arguments are well organized	___ Arguments are well organized	___ Arguments are skillfully presented
	___ Respondent exhibits lack of knowledge in subject area	___ Respondent exhibits adequate knowledge in subject area	___ Respondent exhibits good knowledge in subject area	___ Respondent exhibits superior knowledge in subject area
	___ Responses do not meet level expected of degree program of graduate (MS or PhD)	___ Response meets level expected of degree program of graduate (MS or PhD)	___ Response meets level expected of degree program of graduate (MS or PhD)	___ Responses exceed level expected of degree program of graduate (MS or PhD)
	___ Student does not realize the connection of research to ANSC	___ Student adequately connects research to ANSC	___ Student adequately connects research to ANSC	___ Student is able to discuss in depth the connection of thesis research to ANSC
<b>Overall assessment</b>	___ Does not meet expectations	___ Meets expectations	___ Meets expectations	___ Exceeds Expectations

**Confidential comments:**

<b>Attribute for WRITTEN</b>	<b>Does Not Meet Expectations</b> Provide a short explanation for each attribute that you select in this category (Equivalent to Benchmark =1 on ANSC Undergraduate Rubric)	<b>Meets Base Expectations</b> (Equivalent to Milestone = 2 on ANSC Undergraduate Rubric)	<b>Meets Expectations Well</b> Results BETWEEN a basic meeting of expectations and exceeding expectations (Equivalent to Milestone = 3 on ANSC Undergraduate Rubric)	<b>Exceeds Expectations</b> (Equivalent to Capstone = 4 on ANSC Undergraduate Rubric)
<b>Overall quality of science</b>	___ Arguments are incorrect, incoherent, or flawed	___ Arguments are correct	___ Arguments are coherent and clear	___ Arguments are superior
	___ Objectives are poorly defined	___ Objectives are clear	___ Objectives are clear	___ Objectives are well defined
	___ Demonstrated rudimentary critical thinking skills ___ Does not reflect understanding of subject matter and associated literature	___ Demonstrates average critical thinking skills ___ Reflects understanding of subject matter and associated literature	___ Demonstrates above average critical thinking skills ___ Reflects good understanding of subject matter and associated literature	___ Exhibits mature, critical thinking skills ___ Exhibits mastery of subject matter and associated literature
	___ Demonstrates poor understanding of theoretical concepts	___ Demonstrates some understanding of theoretical concepts	___ Demonstrates understanding of theoretical concepts	___ Demonstrates mastery of theoretical concepts
	___ Demonstrates limited originality ___ Displays limited creativity and insight	___ Demonstrates originality ___ Displays creativity and insight	___ Demonstrates good originality ___ Displays good creativity and insight	___ Demonstrates exceptional originality ___ Displays exceptional creativity and insight
<b>Contribution to discipline</b>	___ Limited evidence of discovery	___ Some evidence of discovery	___ Good evidence of discovery	___ Exceptional evidence of discovery
	___ Limited expansion upon previous research	___ Builds upon previous research	___ Extends previous research	___ Greatly extends previous research
	___ Limited theoretical or applied significance	___ Reasonable theoretical or applied significance	___ Good theoretical or applied significance	___ Exceptional theoretical or applied significance
	___ Limited publication impact	___ Reasonable publication impact	___ Good publication impact	___ Exceptional publication impact
<b>Experimental design implementation and interpretation</b>	___ Duplication of previous work. Design/approach not appropriate	___ Design/approach moderately appropriate or innovative	___ Design/approach appropriate	___ Design/approach appropriate and innovative
	___ Data interpretation is inappropriate and/or uses incorrect methodology	___ Data interpretation is appropriate and uses limited number of correct methodology	___ Data interpretation is appropriate and uses correct methodology	___ Data interpretation is appropriate and creatively uses correct methodology
	___ Identifies no weakness in interpretation	___ Identifies some weaknesses in interpretation	___ Identifies weaknesses in interpretation	___ Identifies weaknesses in interpretation
	___ Demonstrates a lack of ability to articulate a critical response in one's own work or that of other research in the field	___ Demonstrates a limited ability to articulate a critical response in one's own work or that of other research in the files	___ Demonstrates ability to articulate a critical response to one's own work or that of other research in the field	___ Demonstrates an advanced ability to articulate a critical response to one's own work or that of other research in the field
<b>Quality of writing</b>	___ Writing is weak ___ Numerous grammatical and spelling errors	___ Writing is adequate ___ Some grammatical and spelling errors apparent	___ Writing is good ___ Limited grammatical or spelling errors apparent	___ Writing is publication quality ___ No grammatical or spelling errors apparent

	<input type="checkbox"/> Organization is poor <input type="checkbox"/> Documentation is poor	<input type="checkbox"/> Organization is logical <input type="checkbox"/> Documentation is adequate	<input type="checkbox"/> Organization is good <input type="checkbox"/> Documentation is good	<input type="checkbox"/> Organization is excellent <input type="checkbox"/> Documentation is excellent
<b>Overall assessment</b>	<input type="checkbox"/> Does not meet expectations	<input type="checkbox"/> Meets base expectations	<input type="checkbox"/> Meets expectations well	<input type="checkbox"/> Exceeds Expectations
<b>Confidential comments:</b>				