

Annual Academic Assessment Report

DBCALFS ANSC BS Program

Academic Year 2022-2023

Report annually to the Dean of the college/school the following:

- **Results of analysis of assessment of Student Learning Outcome**

This is the first assessment cycle in which ANSC 4993 (Capstone) has been offered. Historically it has been difficult to gather enough data for a report for each ANSC SLO, but all available assessment data were included in the final reports submitted annually to the college https://osai.uark.edu/assessment/ansc/anscbs_assessmentreport_2022.pdf. With the advent of ANSC 4993, data is being captured for each ANSC SLO and trends can be subsequently identified. This year the results of ANSC SLO 1 are reported.

ANSC Student Learning Outcome #1 Students will demonstrate an understanding of scientific knowledge and gain a basic foundation in the general animal sciences, including physiology, genetics, nutrition, muscle foods, as well as demonstrate production management skills.

ANSC SLO #1 Direct measure of Assessment: In November of 2022 and March of 2023, seniors enrolled in ANSC 4993 were invited to participate in the 58-question Senior Assessment Exam. Seventeen seniors participated in the fall of 2022 and 24 participated in the spring of 2023, making the total number of participants 41. Aggregate scores for graduating seniors who completed the senior assessment for the past four years are reported.

2020 Senior, % correct (n = 40)	2021 Senior, % correct (n=18)	2022 Seniors, % correct (n=20)	2023 Seniors, % correct (n=41)
69.31 20 students (50%) had >70% correct	76.0 13 students (72%) had > 70% correct	75.25 15 students (75%) had > 70% correct	85.99 36 students (88%) had >70% correct

The target score for the Senior Assessment Exam, as determined by the departmental committee, was there would be 70% of graduating seniors who scored ‘average’ or above. If the average is set at 70% on the assessment, then 88% of the seniors who took the assessment met this goal. Thus, this reaches the acceptable level as determined by the department.

The 58-question Senior Assessment Exam was further broken down into areas of competency

deemed important by the Departmental Assessment Committee. Results from the past three years are seen below:

Area of Competence	Number of questions	2021 Average Percent correct (N=18)	2022 Average Percent correct (N=20)	2023 Average percent correct (N=41)
Physiology	13	73%	72%	82%
Genetics	11	74%	72%	93%
Nutrition	12	79%	73%	85%
Muscle Products	10	71%	77%	85%
Production Management	12	76%	78%	85%

ANSC SLO #1 Indirect measures of Assessment: Students participated in an exit interview with the Department Chair and a survey was administered to students enrolled in ANSC 4993. Survey results from 41 participants:

- 14 (34%) of the respondents self-reported as male, while 27 (66%) self-reported as female
- Of ANSC concentrations: 26 (63%) were General ANSC while 11 (27%) were Pre-professional and 4 (1%) had an equine concentration
- 36 (88%) identified as Caucasian, 3 (7%) identified as Hispanic/ Latino and 2 (0.05%) responded as other
- 13 (31%) respondents reported they came to the U of A from another state, while 27 (66%) reported they were from Arkansas, and 1 (0.02%) did not respond
- 25 (61%) reported that they volunteered between 1-10 hours/ week.
- When asked about participation in ANSC clubs or teams, 21(51%) reported that they did not participate in any ANSC clubs or teams, 7 reported that they belonged to multiple clubs or teams, and 34% (14) of respondents indicated they were a member of judging teams (livestock or equine).
- Students were also asked which type of animal they would work with post-graduation. Of the 41 participants, 19 (46%) indicated they would work with livestock species.

Any changes to degree/certificate planned or made on the basis of the assessment and analysis

Full Assessment report will be discussed within the Assessment Committee with recommendations brought forward to faculty.

Any changes to the assessment process made or planned.

Changes Made:

- Suggestions by the departmental Assessment Committee to improve upon the information captured in the senior surveys given to the seniors resulted in an update to our senior survey that was implemented in the Spring of 2023. In the area of competence portion of this survey, columns allowing students to rate their perceived competence level as freshman and as seniors – allowing us to see their perceived growth in each area.

	Area of Competence	Score (1-5) Rate your general competence in this area BEFORE you started at the University	Score (1-5) Rate your general competence in this area NOW , as a graduating senior
1	Physiology		
2	Genetics		
3	Nutrition		
4	Muscle products		
5	Production and Management		

- Starting SP 2023, the senior survey tracks post-graduation plans of seniors.

Changes Planned:

- This SLO states that students will “*demonstrate production management skills*” and although all students seeking a degree in ANSC participate in courses that allow them to practice production management skills, there is no system in place for tracking their progress. Plans for addressing this inconsistency will be discussed within the Assessment Committee with recommendations presented to ANSC faculty.
- There was 1 question on the assessment instrument that was incorrectly answered at a frequency of >50% by the seniors. This question was in the physiology discipline and will be discussed by the Assessment Committee. A determination will be made if the question needs to be reworded or if the concept the question addresses needs additional clarification when presented to students.

SLO data is being used to inform the curriculum:

- Review assessment results with subject matter experts (SME)
- Solicit suggestions for improvement in student learning from SMEs
- Implement suggestions of SMEs in curriculum
- Consider improvement in 2023-24 results

Learning Outcome 6.1

Upon reaching this goal, students will be able to reflect upon and explain how they use the skills and abilities embodied in Goals 1 through 5 in completing an integrative project in their major during their junior or senior year.

Learning Indicators for Learning Outcome 6.1: To successfully achieve this outcome, students will:

1. Produce a significant written paper, as defined by his or her major, or an equivalent project incorporating performance and/or multi-modal text and/or images
2. Explain in an additional document of at least 1,250 words the degree to which the completed assignment involves at least three of the following sets of skills and abilities:
 - Written, oral, and/or multimodal communication abilities
 - Quantitative literacy
 - Characteristics of inquiry and action in the major and in one of the Learning Outcomes under Goal 3 besides the disciplinary area of the major
 - Diversity awareness and/or intercultural competency
 - Critical thinking and/or ethical reasoning

One purpose of ANSC 4993 is to provide students with an opportunity to apply and integrate knowledge from previous coursework in general education and animal science. This course is a multiple experience/ exercise capstone course and is designed for students to demonstrate mastery of a particular subject within animal science. Students provided evidence of integrated knowledge through a variety of means including oral presentations, creation of a 1250-word reflective essay, creating an infographic, writing a research abstract and applying problem solving and critical thinking skills.

Students chose a timely/ pertinent question to research based on their ANSC concentration. They provided an annotated bibliography consisting of recent, relevant journal articles and books, assimilated information obtained and produced an abstract and infographic that shared the answer to their question or the justification for a practice to the community. Students presented information gleaned to the class in the form of an infographic and an oral presentation.

Students enrolled in ANSC 4993 met University General Education Outcome 6.1 in the following ways:

- Students researched and submitted an annotated bibliography containing current journal articles pertaining to a topic related to their Animal Science concentration. (meets 6.1a, 6.1c)
- Students critically assessed and articulated current research pertaining to a current topic based on their ANSC concentration. This was in the form of a research abstract that integrated information from the assignment above to develop scientifically based solutions to animal-based problems (meets 6.1a, 6.1c, 6.1e).
- Students created an infographic and described and supported their findings to the class in the form of an oral presentation (meets 6.1a, 6.1c, 6.1e).

- Students created a 1250-word paper reflecting on how their general education core classes helped them develop at least 3 of the skills and abilities outlined in Goal 6.

GELO6.1 A score was recorded in BlackBoard as outlined in the *Sp 23 GELO Class Matrix* document. These scores are reported below for students enrolled in ANSC 4993 in Fall 2022 and Spring 2023.

Semester	No submission	GELO6.1 Score*				
		0	1	2	3	4
2023 Fall N=17	1		0	4	6	6
2024 Spring N=24	1		0	6	9	8
Totals N=41	2		0	3	16	20

*Scale: 4= outstanding achievement; 3= good achievement; 2= average achievement; 1= poor achievement

Further information is available upon request.