

ASSESSMENT PLAN –Department of Animal Science B.S. in Animal Science (Last revised May 2016)

Every OSU degree program must have an assessment plan that describes expected student learning outcomes for the degree program and the methods used to evaluate student achievement of those outcomes. A single assessment plan may cover multiple degree programs only if those programs have a common mission statement and have the same expected student learning outcomes. If programs have different expected learning outcomes, each should have its own assessment plan and annual report.

A. What degree program(s) will be assessed under this plan? If multiple programs are covered by this plan, please list each one separately. Do not list degree options. Assessment activities of all programs included in this plan should be reported in one annual report.

Degree Program

B.S.

Animal Science (options in Ag Communications double major, Ag Education double major, Business, Animal Biotechnology, Ranch Operations, Pre-Veterinary Animal Science, Production, and Livestock Merchandising).

B. What is the mission for this degree program? The mission statement, educational objectives and goals for program should guide the assessment process. Assessment should provide feedback on the extent to which the program is accomplishing its publicly stated goals. Multiple programs may be included in one plan only if they have a common mission statement and have the same student learning outcomes.

Mission and Vision

Building on its tradition of excellence, the Department of Animal Science discovers, develops and disseminates scientific knowledge to advance the animal and food industries.

The Department of Animal Science has preeminent programs in teaching, research and extension that will continue to serve societal needs related to the animal and food industries.

Pertaining to the degree programs the Department will develop life-long learners who understand science, can think creatively and analytically, treat others with honesty and respect and are prepared to serve and lead the animal and food industries with confidence.

Goals (pertaining to the teaching function)

1. Offer effective, dynamic and progressive teaching programs that attract and motivate students and prepare them to serve society and the animal and food industries
2. Utilize the newest technologies in solving problems in cooperation with other departments in the Division of Agricultural Sciences and Natural Resources, within the University and with external groups
3. Increase public awareness of the contributions of Animal Science and the animal industry to society

Objectives

1. Basic knowledge in animal science. Graduates will have acquired fundamental knowledge in animal science and understanding of the principles underlying the field.
2. Equip students with the ability to solve industry related problems associated with domestic animals used for meat animal production, milk production, fiber production, sport, recreation, and as companions. This includes all aspects including, but not limited to conception to death, behavior to management, physiology to nutrition, reproduction to product distribution, and resource use.
3. Graduates can interpret the scientific literature, coordinate ideas from the literature with technical information, and communicate results in oral and written form.
4. Prepare students for varied careers associated with the livestock or food industries. Students will be prepared for varied careers associated with the livestock or food industries including further training (graduate or professional school) and a commitment to a lifetime of continual learning. Produce graduates that can help the livestock and food industries address the needs and concerns of society.

Please respond to items C., D., and E., by providing the information requested on the following page.

C. What are the Primary Student Learning Outcomes for this program? (What do faculty expect students will know and be able to do upon degree completion?) A program may have many expected outcomes; please provide 3-5 statements of assessable student learning outcomes that program faculty believe to be most important. You may include more than five if you believe they are essential for your program, or if your accreditation process requires more. However, the most important outcomes should be listed first, and it is expected that reported assessment activity will reflect the relative importance of various outcomes.

D. What Assessment Methods will you use to measure student achievement of these expected outcomes? (How will you determine the extent to which students have achieved the outcomes?) If you plan to use multiple measures for one outcome, please list all methods. If one method will be used to assess multiple outcomes, please list that method for all expected outcomes it will be used to assess. Both direct and indirect measures should be included. Examples of direct measures (such as certification exams, subject tests) and indirect methods (exit interviews, alumni satisfaction surveys) can be found on the University Assessment and Testing website.

Annual surveys of alumni conducted by University Assessment and Testing provide data about employment of graduates and alumni satisfaction. You can list these alumni surveys as an assessment method if your unit participates in the surveys. The outcomes they assess are alumni satisfaction and alumni perceptions about how well the academic program prepared them for employment or graduate study. Surveys also provide some employment information, such as self-reported salary ranges and job titles. Surveys of alumni of undergraduate programs are conducted in even years, of graduate programs in odd years.

E. Please indicate the timeframe for each assessment to be conducted (each semester, annually, in alternate years).

C. Primary expected student learning outcome	D. Methods that will be used to assess each outcome	E. Timeline for method
1. Graduates will demonstrate acceptable basic knowledge in animal/food science in industry practices, genetics, animal breeding, reproductive physiology, basic nutrition and applied nutrition.	1a. A comprehensive subject matter exam will be administered to all graduating students in a required capstone course.	Twice annually during the Capstone course
2. Graduates can solve industry related problems associated with domestic animals used for meat animal production, milk production, fiber production, sport, recreation, and as companions. This includes every aspect from conception to death, behavior to management, physiology to nutrition, reproduction to product distribution and resource use.	2a. Problem solving exercises and enterprise management plans from 4000-level production courses will be evaluated. At least ¼ of the student papers will be chosen at random and evaluated by a committee composed of faculty members and/or carefully selected graduate students and/or outside evaluators. A rubric (Appendix A) will be used to evaluate a sample of student work based upon: Incorporation of appropriate knowledge from prerequisite courses Organization of knowledge to address the stated problem Clarity of writing Quality of quantitative thinking Overall knowledge of the subject	1a. annually
3. Graduates can interpret the scientific literature, coordinate ideas from the literature with technical course information, and communicate results in oral and written form.	3a. Oral and written reports of drawn from research literature in Capstone class (4863). At least ¼ of student papers will be chosen at random and evaluated by a committee composed of faculty members and/or carefully selected graduate students and/or outside evaluators. A rubric (Appendix B) will be used to evaluate a student work based upon: Identification and/or summary of the problem or question at issue. Understanding how it relates to animal/food science Choice of scientific papers to address the topic/Use of the supporting data. Organization of the oral and written presentation Quality visual aids Discussion of conclusions, implications, answers the initial question Overall knowledge of the topic	2a. annually
4. Prepare students for varied careers associated with the livestock and food industries	4a. Alumni survey (Appendix D) 4b. Evaluation of student's performance on their internship (ANSI 4910). This will be done by the person who supervised the student during the internship to evaluate skills, knowledge, attitude/soft skills and general performance (Appendix C).	4a. Alternate years 4b. Annually, as possible, based on internship participation.

Rubrics are included.

F. How will assessment results be acted on to improve academic and student programs? Describe the process that assures regular curriculum and/or program improvements based on assessment results and stated student learning outcomes. This process should include the program faculty and faculty committees.

Information will be collected by the Assessment Coordinator and the department's Assessment Committee. Copies of assessment reports will be given to all faculty and to the Department Head. Results will be discussed with the Department Head, the Teaching Committee, and the teaching faculty as a whole. When ideas for improvement are identified, they will be brought to a departmental faculty meeting and acted upon as appropriate. The departmental faculty will discuss and improve the curriculum and other key elements of the graduate program. The Assessment Coordinator and/or Assessment Committee may also work with individual faculty members to improve instruction.

Appendix A.

Rubric for evaluation of projects in upper division production courses

Category	1	2	3	4	5	Score
Incorporation of appropriate knowledge from prerequisite courses	No clear understanding of the required knowledge		Limited understanding of the required background knowledge		Excellent understanding of the prerequisite information	
Organization of knowledge to address the stated problem	Explanation does not illustrate organized thinking		Able to organize some specific thoughts but overall organization lacking		Very well organized	
Clarity of writing	Not clearly presented and/or extensive use of improper grammar		Demonstrated some clarity of presentation but still some writing problems		Writing is clear and free from grammar problems	
Quality of quantitative thinking	Ideas are not supported by appropriate quantitative thinking		Data are supporting the writing but not clear throughout		All ideas are well supported by appropriately presented data	
Overall knowledge of the subject	Inadequate knowledge of the subject		Knowledge of some aspects of the subject		Very good knowledge of subject in report	

Appendix B. Rubric for evaluation of performance in ANSI 4863 (Capstone course). *(Revised May 2016).*

ANSI 4863 (Capstone) Individual _____ PAPER RUBRIC

Category	Poor	Average	Excellent	Score
Clearly identifies the questions, understands the importance of the topic to animal/food industries	No clear understanding of the connection to animal or food industries (1)	Limited understanding of the connection between the topic and animal or food industries (5)	Excellent understanding of the importance of the topic (10)	
Content	Topic is poorly developed; support is only vague or general; wording is unclear, simplistic; reflects lack of understanding (1)	Topic is evident; some supporting detail; wording is generally clear; reflects understanding of topic; accomplishes goal of assignment (8)	Topic clearly stated and well developed; details and wording are accurate, specific, and appropriate; evidence of clear thinking; completely accomplishes the goal of the assignment (15)	
Choice and documentation of scientific papers to address the topic (in-text and ending documentation)	Papers do not address the topic and citation format is incomplete and inaccurate(1)	Papers are appropriate to the topic but in an incomplete manner; citations are complete, but format is inaccurate (8)	Papers are very well chosen; complete and accurate citation format (15)	
Organization of the oral and written presentation	Displayed thought processes are disorganized, rambled and unfocused; inappropriate or missing sentence markers (1)	Parts of the presentations are organized well but other parts are hard to follow; some appropriate sentence markers (8)	Excellent organization; paragraphs clearly focused around a central theme; appropriate, coherent sentences and sentence markers (15)	
Quality visual aids	Visual aids are difficult to see and/or interpret (1)	Visual aids are somewhat organized but still difficult to follow (8)	Visual aids strongly support the ideas presented (15)	
Clarity of the written and oral report	Report is poorly organized and/or uses poor grammar; frequent grammar, spelling and/or punctuation errors (1)	Informative but some grammar issues still prevail; some non-standard grammar, spelling and punctuation errors (8)	Report is well organized and easily read; standard grammar, spelling and punctuation (15)	
Overall knowledge of the topic, conclusion provides an answer to the question	Inadequate knowledge of the subject; unable to answer questions (1)	Knowledge of some aspects of the subject but not able to answer questions clearly (8)	Very good knowledge of the subject (15)	

Category	Poor	Average	Excellent	Score
Clearly identifies the questions, understands the importance of the topic to animal/food industries	No clear understanding of the connection to animal or food industries (1)	Limited understanding of the connection between the topic and animal or food industries (3)	Excellent understanding of the importance of the topic (5)	
Content	Topic is poorly developed; support is only vague or general; wording is unclear, simplistic; reflects lack of understanding (1)	Topic is evident; some supporting detail; wording is generally clear; reflects understanding of topic; accomplishes goal of assignment (8)	Topic clearly stated and well developed; details and wording are accurate, specific, and appropriate; evidence of clear thinking; completely accomplishes the goal of the assignment (10)	
Choice and documentation of scientific papers to address the topic	Papers do not address the topic and citation format is incomplete and inaccurate(1)	Papers are appropriate to the topic but in an incomplete manner; citations are complete, but format is inaccurate (5)	Papers are very well chosen; complete and accurate citation format (10)	
Organization of the oral and written presentation	Displayed thought processes are disorganized, rambling and unfocused; inappropriate or missing sentence markers (1)	Parts of the presentations are organized well but other parts are hard to follow; some appropriate sentence markers (8)	Excellent organization; paragraphs clearly focused around a central theme; appropriate, coherent sentences and sentence markers (10)	
Quality visual aids	Visual aids are difficult to see and/or interpret (1)	Visual aids are somewhat organized but still difficult to follow (8)	Visual aids strongly support the ideas presented (15)	
Clarity of the written and oral report	Report is poorly organized and/or uses poor grammar; frequent grammar, spelling and/or punctuation errors (1)	Informative but some grammar issues still prevail; some non-standard grammar, spelling and punctuation errors (8)	Report is well organized and easily read; standard grammar, spelling and punctuation (15)	
Overall knowledge of the topic, conclusion provides an answer to the question	Inadequate knowledge of the subject; unable to answer questions (1)	Knowledge of some aspects of the subject but not able to answer questions clearly (8)	Very good knowledge of the subject (15)	
Body Language	(1)	(5)	(10)	
Time (meets requirements given for time)	9:30 – 10:30 = 10 For every 30 seconds outside the above range, deduct 1 point: 9-9:29, 10:31-11 = 9 8:30-8:59, 11:01-11:30 = 8 8-8:29, 11:31-12 = 7 7:30-7:59, 12:01-12:30 = 6 7-7:29, 12:31-13 = 5 6:30-6:59, 13:01-13:30 = 4 6-6:29, 13:31-14 = 3 5:30-5:59, 14:01-14:30 = 2 5-5:29, 14:31-15 = 1 Under 5 or over 15 minutes = 0			

Department of Animal Science Oklahoma State University

Final Employer Evaluation of Intern Student

Department of Animal Science

Please e-mail or fax to Internship Coordinator

405.744.4716 – carrie.jansen@okstate.edu

Employer Information

Employer (Company/ Organization Name):

Employer Location:

Supervisor's Name:

Student Information

Student's Name: _____

Position: _____

Spring, Summer, or Fall Semester/ Year: _____

Will this evaluation be discussed with the student? _____

General Evaluation Questions

Please indicate on a scale of 1 to 5 how this person performed during the current work period.

5	4	3	2	1	UA	Outstanding	Very Good	Average	Below
					Average	Marginal	Unable to Assess		

- S1. ___ Adequate technical background to complete assigned projects
- S2. ___ Ability to think critically, analytically, and creatively
- S3. ___ Ability to take initiative and perform independently
- S4. ___ Degree of responsibility the intern was able to handle
- S5. ___ Ability to effectively communicate verbally and in written form
- K6. ___ Ability to grasp new knowledge/ concepts/situations
- K7. ___ Ability to use academic knowledge and apply it to internship assignments
- K8. ___ Demonstrates sound judgment when making decisions
- K9. ___ Recognition of the need for and ability to engage in life-long learning
- A10. ___ Degree of enthusiasm/ interest in internship placement
- A11. ___ Dependability, attendance, punctuality, and cooperation
- A12. ___ The capacity to initiate, accept, and profit from constructive criticism
- A13. ___ Relations with others and ability to function in a multi-disciplinary team
- A14. ___ A sense of adequacy, self-worth, and self confidence
- A15. ___ Understanding of professional and ethical responsibility
- G16. ___ Likelihood that you would hire a candidate similar to this intern
- G17. ___ Overall performance

Appendix D. Alumni Survey Program Specific Questions:

Q3-9

ANSI3. My education enhanced my critical thinking skills.

ANSI4. My education enhanced my problem solving skills.

ANSI5. Faculty and staff in animal science demonstrated they cared about me.

ANSI6. My education helped provide the necessary flexibility to make job or career changes.

ANSI7. My undergraduate experience helped me develop contacts that have been useful in my career.

ANSI8. In my view, the Animal Science Department needs to increase the rigor of its classes.

ANSI9. My college education has enhanced my general quality of life.

ANSI3-9 scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

Q10-11

ANSI10. Your participation in student organizations and extracurricular activities.

ANSI11. Your participation in undergraduate research projects.

ANSI10-11 scale: 1=not valuable, 2=somewhat valuable, 3=very valuable, 4=not applicable

Open ended questions

ANSI12. How do you think the OSU Animal Science programs could be improved?

ANSI13. As you reflect on your undergraduate experience, was there a CASNR faculty member who stands out among all others as having had an extraordinary impact on your personal, professional, and academic growth? (yes or no; who)