Student Learning Outcomes
M.S. Program, Department of Animal Sciences and Industry

Student Learning Outcomes

1. Advanced knowledge and understanding in an area of emphasis offered by the Graduate Faculty in the Department of Animal Sciences and Industry.
2. Competency in the collection, analyses and interpretation of data as it relates to the scholarship of their area of emphasis.
3. Competency in oral communication and scholarly writing in the form of a master's thesis or report.

Opportunities with coursework for students to learn outcomes

Program SLO	**ASI Courses Supporting M.S. Degree SLOs**
1. Advanced knowledge and understanding	ASI 600 - Applied Animal Biotechnology ASI 601 - Physiology of Lactation ASI 602 - Equine Breeding and Genetics ASI 608 - Dairy Foods Processing & Techonology ASI 610 - Processed Meat Operations ASI 620 - Livestock Production and Management ASI 621 - Dairy Cattle Management ASI 640 - Poultry Products Technology ASI 645 - Poultry Management ASI 650 - Identification and Data Management of Food Animals ASI 655 - Behavior of Domestic Animals ASI 658 - Animal Growth and Development ASI 660 - International Study Experience in Animal Science ASI 661 - Animal Sciences and Industry Problems ASI 671 - Meat Selection and Utilization ASI 675 - Monogastric Nutrition ASI 676 - Avian Nutrition ASI 678 - Equine Nutrition ASI 679 - Swine Nutrition ASI 680 - Ruminant Nutrition ASI 681 - Dairy Cattle Nutrition ASI 682 - Formulation of Livestock and Poultry Diets ASI 683 - Grazing Livestock Nutrition ASI 684 - Nutrition of Feedlot Cattle ASI 685 - Stored Forage Systems for Ruminant Animals ASI 710 - Physiology of Reproduction in Farm Animals ASI 720 - Anaerobic Bacteriology ASI 749 - Advanced Animal Breeding ASI 776 - Meat Industry Technology ASI 777 - Meat Technology

	ASI 799 - Graduate Internship in Animal Sciences and Industry ASI 802 - Gametes, Embryos, and Stem Cells in Farm Animals ASI 820 - Rumen Metabolism ASI 825 - Stress Physiology of Livestock ASI 826 - Nutritional Physiology ASI 830 - Neuroendocrine Physiology ASI 831 - Molecular Reproductive Endocrinology ASI 832 - Ovarian Physiology ASI 840 - Techniques in Domestic Animal Behavior ASI 860 - Analytical Techniques–Sample Preparation and Beginning Analyses ASI 861 - Analytical Techniques–Mineral Analyses ASI 862 - Analytical Techniques–Carbohydrate and Lipid Analyses ASI 863 - Analytical Techniques–Radioisotope Use ASI 864 - Analytical Techniques-Immunoassays ASI 902 - Topics in Animal Science ASI 905 - Lipids on Food Systems ASI 920 - Energy Utilization in Domestic Livestock ASI 921 - Protein and Amino Acid Utilization in Domestic Livestock ASI 923 - Vitamin and Mineral Nutrition of Domestic Livestock ASI 925 - Rumen Microbiology ASI 930 - Advanced Meat Science ASI 961 - Graduate Problem in Animal Sciences and Industry
2. Competency in the collection, analyses and interpretation of data	ASI 890 - Graduate Seminar in Animal Sciences and Industry ASI 898 - Master's Report ASI 899 - Master's Research in Animal Sciences and Industry
3. Competency in oral communication and scholarly writing	ASI 898 - Master's Report ASI 899 - Master's Research in Animal Sciences and Industry

Assessment

One assessment is completed by each graduate committee at the time of the oral defense using the survey presented on the following page. This survey assesses SLO1, 2, and 3. Additionally, assessment of SLO1, 2, and 3 is based on: tracking the rate of successful completion of the oral defense; tracking times from admission to completion; retention and graduation rates; and placement at completion. Assessment of SLO 2 and 3 is also achieved through output of final products, namely peer-reviewed manuscripts developed from theses and oral or poster abstract presentations at national scientific conferences.

Assessment of Graduate Student Learning – MS Thesis/Report Defense Department of Animal Sciences and Industry

Student Name: _____ Date of Exam: _____

Type of Exam *(please choose one)*: ☐ Thesis ☐ Report Result of Exam *(please choose one)*: ☐ Pass ☐ Fail

1. Evaluator's relationship to student *(please choose one)*:

   ☐ Major or Co-Major Professor ☐ Member of the Supervisory Committee ☐ Member of the Graduate Faculty

2. Please rate the student in the following areas by marking the appropriate boxes.

	Excellent (4)	Good (3)	Fair (2)	Poor (1)	Unable to judge (0)
Knowledge and understanding	☐	☐	☐	☐	☐
	Essentially complete knowledge and understanding in his/her area of emphasis, with no errors in fact, integration, or application of fundamental concepts	Advanced knowledge and understanding in his/her area of emphasis, with limited errors in fact, integration, or application of fundamental concepts	Basic knowledge and understanding in his/her area of emphasis, with some errors in fact, integration, or application of fundamental concepts	Considerable lack of advanced knowledge and understanding in his/her area of emphasis, with frequent or substantial errors in fact, integration, or application of fundamental concepts	
Data collection, analysis, interpretation	☐	☐	☐	☐	☐
	Standards of data collection, analysis, and interpretation are complete and thoroughly developed	Standards of data collection, analysis, and interpretation are mostly complete and developed	Standards of data collection, analysis, and interpretation are somewhat incomplete or underdeveloped	Standards of data collection, analysis and interpretation are significantly incomplete or underdeveloped	
Oral communication	☐	☐	☐	☐	☐
	Presentation is excellent, compelling and sustains interest, well-rehearsed and professional	Presentation is good, generally maintained audience interest, reasonably rehearsed, and generally professional	Presentation is fair, often failed to maintain audience interest, minimally rehearsed, and somewhat unprofessional	Presentation is poor, fraught with errors that distract listeners, dull, unrehearsed, or unprofessional	
Written communication	☐	☐	☐	☐	☐
	Thesis/report is clearly written in a professional manner, with few spelling or grammatical errors	Thesis/report is generally written in a professional manner, with occasional spelling or grammatical errors	Thesis/report is not consistently written in a professional manner, with many spelling or grammatical errors	Thesis/report is written in an unprofessional manner, with frequent or substantial spelling or grammatical errors	

Comments *(continue on back if necessary)*: