Advanced Animal Science

Career Cluster	Agriculture, Food and Natural Resources
Course Code	18107
Prerequisite(s)	Recommended: Intro to AFNR, Fundamental Animal Science
Credit	0.5 of 1.0
Program of Study and Sequence	Fundamental Animal Science – **Advanced Animal Science** – Ag Biotechnology
Student Organization	National FFA Organization
Coordinating Work-Based Learning	Job shadowing, mentoring, internships, entrepreneurships, service learning, workplace tours, apprenticeship, school-based enterprises, Supervised Agricultural Experience (SAE)
Industry Certifications	OSHA 10 Hour Safety Certification (Agricultural or General Industry), National Career Readiness Certificate (NCRC)
Dual Credit or Dual Enrollment	None
Teacher Certification	Agriculture, Food and Natural Resources Cluster Endorsement; Animal Systems Pathway Endorsement; *Agriculture Education
Resources	

Course Description:

Advanced Animal Science will address the advanced knowledge and skills necessary to care for and meet the needs of animals, along with soft skills necessary for careers in the Agriculture, Food and Natural Resources sector. Topics covered include: animal health care practices, nutrition management, reproductive practices, medical terminology, animal classification, surgical techniques, and employability skills. Advanced Animal Science has an increased focus on the veterinary portion of animal husbandry. Utilizing appropriate equipment and technology should enhance classroom and laboratory content. Algebra, English, Biology and human relations skills will be reinforced in the course. Work-based learning strategies appropriate for this course are school-based enterprises and field trips. This class is reinforced through the FFA and Supervised Agricultural Experience (SAE) activities such as the Livestock Evaluation Career Development Event and related Proficiency Awards. Each student will be expected to maintain a SAE.

Program of Study Application:

Advanced Animal Science is the second pathway course in the Agriculture, Food and Natural Resources Program of Study, Animal Systems pathway. Advanced Animal Science is preceded by Fundamental Animal Science and is recommended to be taken prior to participation in Ag Biotechnology.

Course Standards

ADAn 1 Select proper health care practices for animals.

Webb Level	Sub-indicator	Integrated Content
Four Extended Thinking	ADAn 1.1 Choose prevention and treatment programs for animal diseases, parasites and disorders.	
Two Skill/Concept	ADAn 1.2 Discuss how to provide biosecurity for animals, people, and facilities.	

Notes

ADAn 2 Develop proper nutrition management practices to optimize animal performance.

Webb Level	Sub-indicator	Integrated Content
Three Strategic Thinking	ADAn 2.1 Assess nutritional elements as they affect animal performances.	
Three Strategic Thinking	ADAn 2.2 Assemble feed rations to provide for animals' nutritional needs.	

Notes

ADAn 3 Select reproductive practices to optimize animal production.

Webb Level	Sub-indicator	Integrated Content
Four Extended Thinking	ADAn 3.1 Identify management practices in breeding that account for high quality animals.	

Notes

ADAn 4 Articulate medical terminology as it relates to animals.

Webb Level	Sub-indicator	Integrated Content
One Recall	ADAn 4.1 Recognize relevant medical terminology related to animals.	
Two Skill/Concept	ADAn 4.2 Apply medical terminology in the correct context.	

Notes

ADAn 5 Classify, evaluate and select animals based on anatomical and physiological characteristics (National AFNR AS.06).

Webb Level	Sub-indicator	Integrated Content
Two Skill/Concept	ADAn 5.1 Apply principles of anatomy and physiology to uses within various animal systems.	
One Recall	ADAn 5.2 Identify and explain the relationships among the various systems of the body.	

Notes

ADAn 6 Utilize principles of surgical techniques.

Webb Level	Sub-indicator	Integrated Content
One Recall	AdAn 6.1 Identify surgical tools and supplies.	
Four Extended Thinking	ADAn 6.2 Apply proper surgical techniques to medical situations.	

Notes

ADAn 7 Develop employability skills related to the Animal Systems Pathway.

Webb Level	Sub-indicator	Integrated Content
Two Skill/Concept	ADAn 7.1 Develop soft skills to enhance employability.	

Notes