

Advanced Animal Science 2025-2026

11 and 12th Graders

Midland High School

Length of Course: Year Long

Semester: Fall Semester

Credit Hours: 1 Credit

Prerequisite: Principles of Agriculture

Contact:

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Conference Period: 7th: 3:25-4:10

Course Description

Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences. Note: This course satisfies a science credit requirement for students on the Foundation High School Program.

Course Objectives

By the end of this course, students will be able to:

Objective 1	(1) The student demonstrates professional standards/employability skills as required by business and industry.:
Objective 2	(2) Scientific and engineering practices. The student, for at least 40% of instructional time, asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models.

Objective 3	(3) Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs.
Objective 4	4) Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions.
Objective 5	(5) Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society.
Objective 6	6) The student develops a supervised agricultural experience program.
Objective 7	(7) The student analyzes the history, domestication, and evaluation of animals, including canine, feline, bovine, equine, caprine, porcine, ovine, poultry, and lagomorphs.
Objective 8	(8) The student defines how an organism grows and how specialized cells, tissues, and organs develop.

Instructional Materials & Supplies

Students are only permitted to use their MISD-provided Chromebook for teacher-approved websites during designated times as directed in class.

Approved websites may include (but are not limited to):

- iCEV
- Google Classroom
- Google (for school-related research and assignments only)

Required Classroom Materials:

- MISD-issued Chromebook
- Writing utensils (pen or pencil)
- Notebook paper
- MISD-provided instructional materials
- FFA Dues \$40 (One time fee for the year)

- Use of non-approved websites or materials during instruction time is not permitted and may result in disciplinary action in accordance with campus policy.

Course Outline

UNIT	TOPIC	APPROXIMATE TIME
Unit 1	<ul style="list-style-type: none"> • Structural Organization of the Animal Body • Fundamentals of Animal Body Systems: Integration of Systems • External Anatomy of Livestock: Terms & Terminology • Animal ID Systems 	1st 6 Weeks
Unit 2	<ul style="list-style-type: none"> • Animal Welfare Basics • Grades & Standards of Livestock • Animal Science Basics: Genetics • Livestock Breeding Systems • Livestock Reproduction 	2nd 6 Weeks
Unit 3	<ul style="list-style-type: none"> • Common Diseases of Livestock Animals: Cause & Control • Common Parasites of Livestock: Cause & Control • Basic Livestock Surgical Procedures 	3rd 6 Weeks

	<ul style="list-style-type: none"> • Injection Techniques • Fundamentals of Animal Systems 	
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(Adjust number of units and time frames as needed.)

Grading Breakdown

Major assignments are those that allow you to demonstrate mastery of the course objectives. Minor assignments include skill checks, quizzes, homework, and other short assessments that contribute to your overall understanding of the course material.

Category	Percentage
Major Assignments(Tests, Projects)	60%
Minor Assignments (Quizzes / Skills Checks)	40%
Semester Exam / Project	15%

Grade Scale: A = 90–100 | B = 80–89 | C = 70–79 | F = < 70

Semester grades include a grade for each of the three six-week periods and an exam or project that is weighted 15% of the overall semester grade.

Classroom Expectations

1. Be on time to class and bring required supplies.
2. Be respectful to others and the classroom.
3. Come willing to work and learn.
4. Listen while others are talking.
5. Follow all lab safety rules at ALL times.
6. Take care of the classroom and others around you.
7. Chromebooks
 - Make sure to have your chromebook charged and ready to use in class.
8. No phone usage will be allowed in class.

- If there is a conflict or emergency occurring, please communicate with me and we will discuss how to handle the situation.
9. Drinks and Food
- NO DRINKS, FOOD, CANDY, OR GUM.
 - Water with a screw top lid will be permitted. All bottles must be clear with a lid.
10. Bathroom Breaks
- Take the time to go before class.
 - No bathroom 10 minutes after the bell rings, or 10 minutes before the bell rings.
 - You must take the bathroom pass.
11. Tardy Policy
- If the bell rings & you are not in your seat, you are tardy.
 - Arriving 10 minutes after the bell is counted as an absence.
12. Follow safety protocols (PPE, tools, etc.)

Behavior and Consequences:

Failure to follow the classroom procedures, expectations and responsibilities will result in one or more of the following consequences depending on the severity of the incident:

1. A reminder of the expectation.
2. Student/teacher conference.
3. Parent/guardian phone call and/or conference.
4. Office referral.

Any violation that involves the mention of bodily harm or any other severely disruptive behavior will result in immediate administrative support.

Attendance & Participation

Attendance is mandatory. You must:

- Attend scheduled classes and labs
 - Make up missed work with 1 school day allowed for each excused absence
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Late Work & Make-Up Policy

- Students are allowed one day of make-up time for each day of absence
 - Late assignment penalties:
 - 1 School Day Late- Maximum Grade of 90
 - 2 School Days Late- Maximum grade of 80
 - 3-5 School Days Late- Maximum grade of 70
 - Missed assessments must be rescheduled
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Academic Integrity

Cheating or plagiarism is not tolerated. First offense may result in a zero and parent contact. Further violations follow district policy.

Industry-Based Certifications

This course aligns with—and prepares students for—the following credentials:

- **Certification Name (Elanco Fundamentals of Animal Science Certification)**
 - Offered: [To all 12th Graders Animal Science Pathway Completers /May of Senior year]
 - Required/Optional: [Required for all Senior in the Advanced Animal Science Course]
 - Cost: No charge to student
 - Preparation: in-class instruction, online guides

Earning credentials enhances employability and may qualify for dual credit or advanced placement.

Career & Technical Student Organization (CTSO) Involvement

Students are encouraged to participate in:

Midland High FFA

- *Description:* Texas FFA Association is a student organization focused on agricultural education and leadership development. It's one of the largest state FFA associations in the National FFA Organization. The Texas FFA is part of a three-part model of agricultural education, alongside classroom instruction and Supervised Agricultural Experiences (SAEs). The organization aims to empower students to develop premier leadership, personal growth, and career success within the agricultural industry.
- *Activities:* [FFA Meetings, LDE & CDE Competitions, FFA Service projects, SAEs]
- *Requirements:* [To become a member of the Texas FFA (Future Farmers of America), a student must be enrolled in an agriculture, food, and natural resources course at the

secondary level (grades 7-12). They must also pay required dues and show interest in the organization by participating in activities and striving for degrees of membership.]

Safety & Equipment Use

- Always follow safety instructions and wear required PPE
 - Report damaged tools/equipment immediately
 - Violation of safety protocols may result in removal from lab and disciplinary action
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Parent/Guardian Communication

- Progress reports sent every 3 weeks if grade is below 70.
 - Grades available in Skyward
 - Please email or call with questions or concerns
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Acknowledgment of Understanding

Please return this signed page by [Date].

Student Name: _____ **Signature:** _____

Guardian Name: _____ **Signature:** _____

Preferred Contact (Email/Phone): _____

Please see Midlandisd.net/CTE for more information regarding nondiscrimination.



**COURSE SYLLABUS
CAREER & TECHNICAL EDUCATION**
