



Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: *Animal Science*

Endorsement: *Business & Industry*

The Animal Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of animals and other living organisms. This program of study includes applying biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students will research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.



Animal Science Course Sequence

Level 1	Course	Prerequisites
	Principles of Agriculture, Food, and Natural Resources 1 credit, 1 class period	MHS Prerequisites: None

Level 2	Course	Prerequisites
	Small Animal Management .5 credit, 1 class period, 1 semester	Prerequisites: Principles of AFNR
	Equine Science .5 credit, 1 class period, 1 semester	
Entrepreneurship I 1 credit, 1 class period	Recommended Prerequisites: None	

Level 3	Course	Prerequisites
	Livestock Production AND/OR Advanced Animal Science 1 credit, 1 class period	Prerequisites: Small Animal Management AND Equine Science
Industry Based Certifications	<ul style="list-style-type: none"> Elanco Fundamentals of Animal Science Certification 	

Level 4	Course	Prerequisites Corequisites
	Practicum in AFNR OR Practicum in Entrepreneurship 2 credits, 2 class periods	Prerequisites: 2 courses in Animal Science Pathway

Postsecondary Opportunities

Apprenticeships

- Reproduction Technician

Associate Degrees

- Biological and Physical Sciences
- Entomology

Bachelor's Degrees

- Animal Science
- Zoology/Animal Biology

Master's, Doctoral, and Professional Degrees

- Marine Sciences
- Biotechnology

Aligned Occupations

Veterinary Assistants and Laboratory Animal Caretakers

Median Wage: \$29,906
 Annual Openings: 1,348
 10-Year Growth: 24%

Veterinary Technologists and Technicians

Median Wage: \$33,679
 Annual Openings: 1,217
 10-Year Growth: 24%

Veterinarian

Median Wage: \$103,160
 Annual Openings: 347
 10-Year Growth: 26%

To earn the Animal Science Pathway and Business & Industry Endorsement, students must complete at least 3 classes for 4 or more credits.

Animal Science

BUSINESS & INDUSTRY ENDORSEMENT



An example of a four-year plan for a student entering 9th grade to complete the Animal Science Program of Study.

Subject	9th	10th	11th	12th
Language Arts	English 1	English 2	English 3	Advanced English
Mathematics	Algebra 1	Geometry	3 rd Math	4 th Math
Science	Biology or IPC	Biology or Chemistry	Advanced Animal Science	4 th Science
Social Studies	World Geography	World History	US History	Govt./Econ.
Required CTE courses	Principles of AFNR	Small Animal Management & Equine Science	Livestock Production	Practicum of AFNR OR Practicum in Entrepreneurship
Elective	Physical Education	Fine Arts	Entrepreneurship I	
Elective	Foreign Language	Foreign Language	Elective	Elective

Industry Based Certifications
<ul style="list-style-type: none"> Elanco Fundamentals of Animal Science Certification

Related CTE Elective Courses
<ul style="list-style-type: none"> Business Management Entrepreneurship II Global Business & Human Resource Management

Program of Study Planning
<ul style="list-style-type: none"> To complete any Program of Study, a student must complete 3 or more courses for a total of 4 or more credits. A student may change their Program of Study at the end of their 9th grade year but must remain in their newly chosen pathway for the remainder of high school if they wish to complete it. Students are encouraged to pursue other passions in their academics with the understanding that courses and/or commitments in other programs may conflict with completing their Program of Study.