



# School District of Marshfield Course Syllabus

---

**Course Name: Small Animal Veterinary Science**

**Length of Course: Semester**

**Credit: 1/2 Credit**

## **Program Goal:**

The School District of Marshfield Agriculture Education Program will provide learners the opportunity to explore and develop interests in various areas of agriculture while preparing young adults for their next steps in life. Whether it is pursuing a postsecondary education or entering the world of work, Marshfield's agriculture program offers diverse experiences for all students in agriculture, horticulture and natural resources. Marshfield's agriculture program will provide valuable learning experiences for all learners whether they want to learn more about the importance of agriculture on society, have a hobby related to agriculture or are preparing for an agriculture related career.

## **Course Description:**

Discover opportunities in the animal industry that range from owning a pet shop to working as a zookeeper; from breeding cats to working with exotic animals. Small Animal Veterinary Science includes the study of dogs, cats, horses, and other companion animals. Specific topics to be discussed are animal breeds, anatomy, proper health care, nutrition, breeding, showing, careers and animal rights/welfare. Students will also learn how to perform veterinary techniques including animal handling, suturing, and administering shots.

## Wisconsin Standards for Agriculture, Food and Natural Resources (AFNR)

### Agricultural Literacy, Leadership, and Research (ALLR)

**ALLR.1:** Students will examine the components, applications, historical development, global implications, future trends, and career opportunities related to agricultural literacy.

**Identify and understand connections between academic subjects and agricultural careers including, but not limited to STEM.**

ALLR.1.D

1.D.b.1: Identify career pathways intersecting with agriculture.  
1.D.i.1.b: Examine career advancement requirements, including degrees, certifications, and training.

**ALLR.2:** Students will implement communication and group leadership concepts in AFNR activities.

**Produce clear, reasoned, and coherent written and visual communication.**

ALLR.2.H

2.H.a.2: Compose clear and coherent written documents and visuals adapted to audience needs in formal and informal settings.

**Understand and communicate the importance and value of agriculture in daily life in relation to animals and plants, lifestyle, economy, technology, and FFA.**

ALLR.2.I

2.I.b.1: Examine the components of the AFNR systems, and assess their impact on the local, state, national, and global society and economy.  
2.I.i.1: Analyze how issues, trends, technologies, and public policies impact systems in AFNR Career Clusters and Pathways.

**ALLR.4:** Students will engage in intracurricular groups, professional organizations, or community involvement.

**Act as a responsible and contributing member of intracurricular groups, professional organizations, and community groups.**

ALLR.4.A

4.A.i.2: Assess available civic service or volunteer opportunities at school, work, and community, based on personal interests.

**Connect and apply academic learning, knowledge, and technical skills to solve problems as an active member of the FFA.**

ALLR.4.D

4.D.i.1: Identify opportunities to apply cross-curricular academic learning and technical skills to involvement in FFA.  
4.D.a.1: Practice applying academic knowledge and technical skills in FFA and reflect on the results achieved.

**ALLR.5:** Students will gain agricultural skills through an agricultural literacy, leadership, and research Supervised Agricultural Experience Program.

**Evaluate and implement steps and requirements to pursue a career opportunity in an AFNR career pathway.**

ALLR.5.A

5.A.b.2: Examine educational, training, and experiential requirements to pursue a career in an AFNR pathway.

**Examine and choose career opportunities matched to personal skills, talents, and career goals in an AFNR pathway of interest.**

ALLR.5.B

5.B.b.1: Research and describe careers in each of the AFNR pathways, and choose potential careers connecting to personal interests and skills.

### Animal Systems (AS)

**AS.1:** Students will examine the components, historical development, global implications, future trends, and career opportunities of animal systems.

<b>Evaluate the development and implications of animal origin, domestication, and distribution on production practices and the environment.</b> AS.1.A	1.A.b.2: Research and summarize major components of animal systems: livestock, companion animal, aquaculture, etc.
<b>Analyze and apply laws and sustainable practices to animal agriculture from a global perspective.</b> AS.1.B	1.B.a.1: Evaluate the impact of laws pertaining to animal agriculture, and assess compliance of production practices with established regulations.
<b>Evaluate the importance of the animal science industry to understand the impact on the global economy.</b> AS.1.C	1.C.i.1: Assess the impact of the animal science industry upon the United States' gross national product and the total global economy.
<b>Evaluate various occupations related to animal industries.</b> AS.1.D	1.D.i.1: Examine careers related to the animal industry.
<b>Communicate effectively utilizing disciplinary literacy.</b> AS.1.E	1.E.i.1: Explain terms and methods related to animal production.
<b>Communicate and work effectively in animal science settings with individuals and groups representing diverse backgrounds and abilities.</b> AS.1.F	1.F.i.1: Develop plans to communicate and work effectively in animal science settings with individuals and groups representing diverse backgrounds and abilities.
<b>AS.2:</b> Students will classify, evaluate, select, and manage animals based on anatomical and physiological characteristics.	
<b>Classify animals according to taxonomic classification systems and use.</b> AS.2.A	2.A.i.2: Compare and contrast major uses of different animal species. 2.A.i.3: Compare and contrast breed characteristics of an animal or animal product, and select correct classification terminology when referring to companion, production, and wild animals. 2.A.a.1: Assess taxonomic characteristics, and classify animals according to the taxonomic classification system.
<b>Apply principles of comparative anatomy and physiology to uses within various animal systems.</b> AS.2.B	2.B.i.3: Compare and contrast animal cells, tissues, organs, and body-system types and functions among animal species.
<b>Select and train animals for specific purposes and maximum performance based on anatomy and physiology.</b> AS.2.C	2.C.i.1: Compare and contrast desirable anatomical and physiological characteristics of animals within and between species. 2.C.i.2: Explain various anatomical and physiological disorders and their effects on animal performance. 2.C.i.3: Evaluate and select superior animals producing products based on industry standards.
<b>AS.3:</b> Students will apply principles and practices of effective animal health care.	

<b>Communicate effectively utilizing veterinary terminology.</b> AS.3.A	3.A.a.1: Effectively communicate utilizing veterinary terminology.
<b>Demonstrate or recommend animal handling procedures to prevent hazards and increase the safety of humans and animals.</b> AS.3.B	3.B.b.1: Identify tools and technology used in animal health management. 3.B.b.4: Identify characteristics of casual agenda and vectors of diseases and disorders in animals. 3.B.i.3: Perform or explain simple animal health-check evaluations on and practice emergency response procedures related to animals. 3.B.i.5: Discuss best management practices associated with managing animals. 3.B.a.2: Demonstrate and recommend animal handling procedures to prevent hazards, taking into account the safety of humans and animals.
<b>Design programs to prevent animal diseases, parasites, and other disorders to ensure animal welfare.</b> AS.3.C	3.C.b.2: Identify and explain the clinical significance of common veterinary methods and treatments. 3.C.a.1: Recommend or demonstrate treatment for common diseases, parasites, and physiological disorders of animals according to directions prescribed by healthcare professionals.
<b>Analyze biosecurity measures utilized to protect welfare of humans and animals on a local, state, national, and global level.</b> AS.3.E	3.E.b.3: Identify pharmaceuticals used to treat animals. 3.E.i.2: Analyze the health risk of zoonotic diseases to humans, and identify prevention methods.
<b>AS.4:</b> Students will design and provide proper animal nutrition to achieve desired outcomes for performance development, reproduction, and/or economic production.	
<b>Analyze nutritional needs of animals.</b> AS.4.A	4.A.i.2: Correlate species nutritional needs to possible and available feedstuffs. 4.A.a.1: Assess nutritional needs for individual animals based on growth stage and production.
<b>Analyze feed rations, and assess if they meet nutritional needs of animals.</b> AS.4.B	4.B.i.1: Analyze and calculate relative nutritional value of feedstuffs by evaluating general quality and condition.
<b>Utilize industry tools to make animal nutrition decisions.</b> AS.4.C	4.C.i.2: Analyze and apply information from a feed label and feeding directions to feed animals.
<b>AS.5:</b> Students will apply principles of animal reproduction to achieve desired outcomes.	
<b>Apply scientific principles in selection and breeding of animals.</b> AS.5.C	5.C.b.1: Identify desired traits for specific animals.
<b>AS.6:</b> Students will prepare and implement animal handling procedures for safety of animals, producers, and consumers of animal products.	
<b>Demonstrate management techniques ensuring animal welfare.</b> AS.6.A	6.A.b.1: Define and compare “animal rights” and “animal welfare.” 6.A.i.1: Explore agencies and organizations employing these concepts.

	<p>6.A.i.2: Explain laws governing animal care and use.</p> <p>6.A.a.2: Analyze community responsibility in options for caring for unwanted or neglected animals.</p> <p>6.A.a.5: Demonstrate proper restraint and handling practices for specific animal species.</p>
<p><b>AS.9:</b> Students will gain agricultural skills through an animal pathway Supervised Agricultural Experience (SAE) Program.</p>	
<p><b>Evaluate and implement steps and requirements to pursue a career opportunity in an AFNR career pathway.</b> AS.9.A</p>	<p>9.A.b.2: Examine educational, training and experiential requirements to pursue a career in an AFNR pathway.</p> <p>9.A.i.2: Analyze personal skill set and add to career plan options for attaining required education, training and experiences to obtain a career in an AFNR pathway.</p>
<p><b>Examine and choose career opportunities matched to personal skills, talents, and career goals in AFNR pathway of interest.</b> AS.9.B</p>	<p>9.B.b.1: Research and describe careers in each of the AFNR pathways and choose potential careers connecting to personal interests and skills.</p> <p>9.B.i.1: Assemble and analyze examples of careers and related statistics on local, state, national, and global levels.</p>
<p><b>Wisconsin Career Readiness Standards (WCERS)</b></p>	
<p><b>Career Ready (CAR)</b></p>	
<p>Students will create a plan for their future education, training, and career goals based on research and exploration of their options.</p>	
<p><b>Career Awareness (KNOW)</b> CAR.1</p> <p>KNOW how interests, skills, and strengths connect learning to career opportunities in their future.</p>	<p>1.A: Discover:</p> <ul style="list-style-type: none"> <li>• career clusters and pathways</li> <li>• emerging and in-demand careers</li> <li>• postsecondary education and training options</li> <li>• entrepreneurship pros and cons</li> </ul> <p>1.D: Understand the impacts of earning potential and the total cost of education or training on a chosen career pathway.</p>
<p><b>Career Exploration (EXPLORE)</b> CAR.2</p> <p>EXPLORE multiple career and educational choices to evaluate how they compare and contrast to personal interests and skills.</p>	<p>2.A: Identify emerging and in-demand careers and entrepreneurship opportunities that align with personal interests, skills, and work values.</p> <p>2.C: Evaluate the need for lifelong learning to navigate one’s career in a diverse and changing economy.</p>
<p><b>Career Planning (PLAN)</b> CAR.3</p> <p>Based on what they know and have explored, develop a PLAN to reach individual education career goals.</p>	<p>3.B: Compare and contrast postsecondary education and training options for career area(s) of interest including:</p> <ul style="list-style-type: none"> <li>• four-year college</li> <li>• technical college</li> <li>• registered apprenticeships</li> <li>• military training</li> <li>• industry-recognized credentials</li> <li>• startup incubators, and</li> <li>• on-the-job training.</li> </ul>
<p><b>Learning Ready (LRN)</b></p>	
<p>Students will understand how K-12 classroom learning will prepare them for careers and lifelong learning.</p>	

<p><b>Academic Skills</b> LRN.1</p> <p>Acquire academic skills and real-life experiences to prepare for future education and a career.</p>	<p>1.A: Engage in challenging courses and opportunities that align with academic and career goals. 1.D: Be eager and willing to learn new knowledge and skills.</p>
<p><b>Critical thinking and problem-solving</b> LRN.2</p> <p>Develop the motivation and acquire the critical thinking and creative problem-solving skills needed to prepare for future education and careers.</p>	<p>2.C: Develop persistence, initiative, and self-direction in problem-solving and goal attainment.</p>
<p><b>Technology skills</b> LRN.4</p> <p>Acquire commonly used technology skills required for all careers.</p>	<p>4.C: Use digital presentation applications to create and deliver a presentation. 4.D: Use internet and common productivity applications to maximize communication, collaboration, and social interactions in a professional manner. 4.E: Use basic operating system features to manage applications, files, folders, and settings.</p>
<p><b>Life Ready (LIF)</b></p>	
<p>Students will develop a positive identity and act with an awareness of self and others to collaborate, advocate, and lead effectively across various contexts.</p>	
<p><b>Self-awareness, management, and responsibility</b> LIF.1</p> <p>Gain insight into oneself to help inform and build paths to success in personal, educational, and career settings.</p>	<p>1.B: Manage emotions and behaviors effectively in academic and workplace situations. 1.C: Take responsibility and accountability for actions, behaviors, and commitments. 1.D: Acquire the habits, skills, and mindsets that form the basis for academic and career success, including the use of digital tools.</p>
<p><b>Interpersonal communication and collaboration</b> LIF.2</p> <p>Use interpersonal skills to interact with others for positive outcomes and collective success.</p>	<p>2.C: Demonstrate openness to providing and accepting feedback.</p>
<p><b>Global competence</b> LIF.3</p> <p>Understand one’s impact on the world and develop the ability to interact with people from other backgrounds, nations, and cultures.</p>	<p>3.B: Describe connections between local and global issues and their impact on communities around the world.</p>

<p><b>Responsive leadership</b> LIF.4</p> <p>Take individual and collective action that demonstrates responsibility, care, and purpose to create positive change.</p>	<p>4.C: Demonstrate effective team-building skills, and facilitate goal-oriented group processes with concern for the people involved.</p>
---	--

<b>Key Vocabulary:</b>			
animal welfare	binomial nomenclature	colostrum	estrus
euthanasia	feline leukemia virus	fleas	foal
gestation	gizzard	mare	mites
neutered	nonruminant	ovaries	ruminant
parasite	reptilia	spayed	taxonomy
stallion	tapeworms	ticks	toxoplasmosis
zoonoses	intradermal	intramuscular	intravenous
suturing	respiration	pulse	restraint

## Topics/Content Outline-

### Content Outline:

- Introduction to Small Animal Care
  - The Small Animal Industry
  - Classification of Organisms
- Animal Safety
  - Risks with Small Animals
  - Zoonoses
- Small Animals as Pets
  - Choosing a Pet
  - Overpopulation and Euthanasia
- Animal Rights and Animal Welfare
- Careers in Small Animal Care
- Nutrition and Digestive Systems
  - Pet Food Labels
- Dogs
  - Groups and Breeds
  - Anatomy

- Choosing a Dog
- Training
- Grooming and Care
- Common Diseases
- Reproduction
- Cats
  - History
  - Groups and Breeds
  - Anatomy
  - Choosing a Cat
  - Feeding and Training
  - Grooming and Care
  - Common Diseases
  - Reproduction
- Horses
  - History and Function
  - Breeds
  - Gaits and Movement
  - Judging and Selection
  - Feeding
  - Management
  - Riding
- Small Animal Presentations

### **Primary Resource(s):**

**Small Animal Care and Management, 4<sup>th</sup> Edition**  
Cengage Learning  
ISBN: 978-1285-425-52-8  
© 2016