

School District of Marshfield Course Syllabus

Course Name: Small Animal Veterinary Science Grade(s): 10-12 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)		
Agriculture Business Standards (ABS)		
ABS1: Students will use economic principles to establish and manage AFNR enterprise.		
Evaluate the development and implications of animal origin, domestication and distribution. AS1.a	1.a.6.h: Outline the development of the animal industry and resulting products, services and careers.1.a.8.h: Predict trends and implications of future development of the animal systems industry.	
Animal Systems (AS)		
AS1: Students will examine the components, historical development, global implications and future trends of the animal systems industry.		
Evaluate the development and implications of animal origin, domestication and distribution. AS1.a	 1.a.5.h: Evaluate and describe characteristics of animals that developed in response to the animals' environment and led to their domestication. 1.a.8.h: Predict trends and implications of future development of the animal systems industry 	
AS2: Students will classify, evaluate, select and manage animals based on anatomical and physiological characteristics.		
Classify animals according to hierarchical taxonomy and agricultural use. AS2.a	 2.a.4.h: Explain how animals are classified using Linnaeus's taxonomical classification system. 2.a.6.h: Classify animals according to the taxonomical classification system. 2.a.7.h: Appraise and evaluate the economic value of animals for various applications in the agriculture industry. 	
Apply principles of comparative anatomy and physiology to uses within various animal systems. AS2.b	 2.b.6.h: Compare and contrast animal cells, tissues, organs and body systems and describe their functions. 2.b.8.h: Explain the relationship, importance and uses of animal tissues to growth, performance and health in the agriculture industry. 2.b.9.h: Compare and contrast organ types, functions and body systems adaptations among and between animal species. 2.b.10.h: Explain how the components and systems of anatomy and physiology relate to the production and use of animals. 2.b.12.h: Explain the impact of animal body systems on health, growth and reproduction. 	
Select animals for specific purposes and maximum performance based on anatomy and physiology. AS2.c	 2.c.4.h: Compare and contrast desirable anatomical and physiological characteristics of animals within and between species. 2.c.S.h: Assess an animal to determine if it has reached its optimal performance level based on anatomical and physiological characteristics. 	

	2.c.6.h: Evaluate and select animals to maximize		
	performance based on anatomical and physiological		
	characteristics that affect health, growth and reproduction.		
AS3: Students will provide for the proper h	ealth care of animals.		
Prescribe and implement a prevention	m 3.a.8.h: Perform simple health-check evaluations on		
treatment program for animal diseases,	s, animals.		
parasites and other disorders. AS3.a	3.a.9.h: Perform diagnostic tests to detect health problems in animals.		
	3.a.10.h: Diagnose illnesses and disorders of animals		
	based on symptoms and problems caused by diseases,		
	parasites and physiological disorders.		
	3.a.11.h: Treat common diseases, parasites and		
	physiological disorders of animals.		
	5.a.12.n: Evaluate preventive measures for controlling and limiting the spread of discusses, parasites and disorders		
	among animals		
	3.a.14.h: Prepare animals, facilities and equipment for		
	surgical and nonsurgical veterinary treatments and		
	procedures.		
	3.a.15.h: Perform surgical and nonsurgical veterinary		
	treatments and procedures in animal health care.		
Identify bio-security threats and	3.b.4.h: Explain the health risk of zoonotic diseases to		
provide for the bio-security of	humans and their historical significance and future		
agricultural animals and production	Implications.		
AS3 b	and procedures for the safe handling and treatment of		
	animals.		
AS4: Students will apply principles of anin	al nutrition to ensure the proper growth, development,		
reproduction and economic production of a	nimals.		
Formulate feed rations to provide for	4.a.4.h: Determine the relative nutritional value of		
the nutritional needs of animals.	feedstuffs by evaluating their general quality and		
AS4.a	condition.		
	4.a.6.h: Select appropriate feedstuffs for animals based on		
	nutritional needs		
	4 a 7 h: Formulate animal feeds based on nutritional		
	requirements, using feed ingredients for maximum		
	nutrition and optimal economic production.		
AS5: Students will evaluate and select anim	nals based on scientific principles of animal production.		
Evaluate the male and female	5.a.3.h: Describe the functions of major organs in the male		
reproductive systems in selecting	and female reproductive systems.		
animals.			
AS5.a			
Apply scientific principles in the	5.d3.h: Explain the advantages of using genetically		
selection and breeding of animals.	superior animals in the production of animals and animal		
ASJ.U	products.		

Compare and contrast scientific methods associated with animal reproduction. AS5.f	 5.f.6.h: Explain the processes of natural and artificial breeding methods. 5.f.9.h: Explain the processes of major reproductive management practices, including estrous synchronization, superovulation, flushing and embryo transfer. 5.f.10.h: Perform procedures for estrous synchronization, superovulation, flushing, embryo transfer and other 	
AS6: Students will proper and implement	reproductive management practices.	
producers and consumers of animal product	annual handling procedures for the safety of annuals,	
Formulate feed rations to provide for the nutritional needs of animals. AS6.a	6.a.4.h: Outline safety procedures for working with animals by species.6.a.5.h: Design programs that assure the welfare of animals and prevent abuse or mistreatment.6.a.6.h: Interpret animal behaviors and execute protocols for safe handling of animals.	
Formulate feed rations to provide for the nutritional needs of animals. AS6.b	6.b.4.h: Discuss consumer concerns with animal production practices relative to human health.	
AS7: Students will select animal facilities and equipment that provide for the safe and efficient production, housing and handling of animals.		
Design animal housing, equipment and handling facilities for the major systems of animal production. AS7.a	7.a.6.h: Explain how modern equipment and handling facilities enhance the safe and economic production of animals.	
AS8: Students will analyze environmental f	factors associated with animal production.	
Evaluate the effects of environmental conditions on animals. AS8.b	8.b.2.h: Describe the effects of environmental conditions on animal populations and performance.	
Wisconsin Common Career Tec	hnical Standards (WCCTS)	
Creativity, Critical Thinking, Comm	unication and Collaboration (4C)	
4C1: Students will think and work creatively to develop innovative solutions to problems and opportunities.		
Develop original solutions, products and services to meet a given need. 4C1.a	1.a.8.h: Design a product or service that could fulfill a human need or desire.1.a.9.h: Apply past experiences to current problems in developing innovative solutions.	
Work creatively with others to develop solutions, products and services. 4C1.b	1.b.7.h: Incorporate the skills and experiences of others to develop a new solution to a problem.	
4C2: Students will formulate and defend ju	dgments and decisions by employing critical thinking skills.	
Develop effective resolutions for a given problem, decision or opportunity using available information. 4C2.a	2.a.11.h: Determine the information needed to address an identified problem.2.a.15.h: Determine the best resolution for a problem, decision or opportunity based on given criteria.	

Develop and implement a resolution for a new situation using personal	2.b.5.h: Apply past experience to develop a course of action for a new situation.	
4C2.b	for a new situation, problem or opportunity.	
4C3: Students will communicate and collaborate with others to accomplish tasks and develop solutions to problems and opportunities.		
Communicate thoughts and feelings with others using verbal and non- verbal language. 4C3.a	 3.a.9.h: Develop a mutually acceptable response to a question or problem. 3.a.10.h: Distinguish between what a person says and what their expressions and body language indicate. 3.a.12.h: Utilize effective listening skills in creating consensus in a group. 	
Work collaboratively with others. 4C3.b	 3.b.7.h: Participate in group processes to generate consensus. 3.b.8.h: Lead group processes to generate consensus. 3.b.9.h: Incorporate the use of technology to productively plan, implement and evaluate a solution, process or procedure. 	
Career Development (CD)		
CD1: Students will consider, analyze and apply an awareness of self, identity and culture to identify skills and talents.		
Identify person strengths, aptitudes and passions. CD1.a	1.a.3.h: Evaluate various occupations and career pathways to identify personal, academic and career goals based on personal strengths, aptitudes and passions.	
Demonstrate effective decision- making, problem solving and goal setting. CD1.b	I.b.5.h: Use a decision-making and problem-solving model.	
CD2: Students will identify the connection between educational achievement and work opportunities in order to reach personal and career goals.		
Apply academic experiences to the world of work, inter-relationships and the community. CD2.a	2.a.3.h: Evaluate how performance and connections within the learning community enhance future opportunities.2.a.4.h: Determine those opportunities that best support attainment of a specific career goal.	
Assess attitudes and skills that contribute to successful learning in school and across the life span. CD2.b	 2.b.7.h: Interpret and analyze the impact of current education, training and work trends on life, learning and career plans. 2.b.8.h: Assess education and training opportunities to acquire new skills necessary for career advancement. 2.b.9.h: Analyze local and regional labor market and job growth information to select a career pathway for potential advancement. 	
CD3: Students will create and manage a flex their career goals.	xible and responsive individualized learning plan to meet	

Examine and evaluate opportunities	3.b.5.h: Evaluate the relationship between educational		
that could enhance life and career plans	achievement and career development.		
and articulate plan to guide decisions			
and actions.			
CD3.b			
CD4: Students will identify and apply employed	oyability skills.		
Demonstrate skills related to seeking	4.b.5.h: Use multiple resources to locate job		
and applying for employment to find	opportunities.		
and obtain a desired job.			
CD4.b			
Develop positive relationships with	4.d.5.h: Participate in cocurricular and community		
others.	activities to enhance the school experience.		
CD4.d	4.d./.n: Examine the skills required to enable students to		
Environment Health and Safety (EHG	successfully transition to post-secondary opportunities.		
Environment, Health and Safety (EHS			
EHS1: Students will identify the importance	e and interrelationships of health, safety and environmental		
systems and evaluate the impacts of these sy	stems on organizational performance for continuous		
improvement.			
Implement personal and jobsite safety	l.d.8.h: Identify different workplace systems that protect		
rules and regulations to maintain and	and enhance personal and environmental health and		
improve safe and healthful working	safety.		
conditions and environments.			
EHS1.d			
Global and Cultural Awareness (GCA	s)		
GCA2: Students will assess the benefits and	d challenges of working in diverse settings and on diverse		
teams.			
Work effectively with diverse	2.a.7.h: Collaborate with diverse individuals to		
individuals in a variety of settings and	accomplish tasks in personal, school, work and		
contexts.	community contexts.		
GCA2.a Information Media and Technology Skill	s (IMT)		
The second			
IMT1: Students will access, interpret and e	valuate information from a variety of sources in order to		
inform and support premises, arguments, de	cisions, ideas and initiatives.		
Choose appropriate sources of data and	1.a.6.h: Justify the selection of various information sources		
information for a given purpose.	for a given purpose.		
IMT1.a			
Determine the relevance, validity and	I.b.7.h: Use raw data and information appropriately to		
Imeliness of data and information.	support an argument, idea or initiative.		
IWI I 1.0	and timely data and information		
Select relevant information pages are	and timely data and information.		
for making decisions and solving	data and information		
nroblems	Le 6 h: Interpret and select appropriate information to		
IMT1 c	develop a resolution for a given situation		
Apply data and information to	1.d.8.h: Manage and share stored data and information for		
communicate ideas and create new	a specific purpose.		
opportunities.			

IMT1.d			
IMT2: Students will apply information literacy skills to access and evaluate media to design and produce media products.			
Analyze media messages to determine biases and objectivity. IMT2.a	2.a.9.h: Portray information in different ways to account for different audiences.		
Prepare media products in order to communicate a specific message. IMT2.b	2.b.4.h: Create media products to communicate a given message to different audiences.		
IMT3: Students will use available information and communication technology to improve productivity, solve problems and create opportunities.			
Adopt new technological tools to increase personal and organizational productivity. IMT3.a	3.a.11.h: Adapt and refine technology to continuously improve personal and organizational productivity.		
Select and use communication and information technology to help solve problems and provide opportunities. IMT3.b	3.b.7.h: Use communication and information technology to effectively solve a given problem.		
Leadership (LE)			
LE1: Students will apply leadership skills applications.	in real-world, family, community and business and industry		
Implement leadership skills to accomplish team goals and objectives. LE1.a	 1.a.10.h: Exhibit skills such as compassion, service, listening, coaching, developing others, team development. 1.a.11.h: Demonstrate skills such as enthusiasm, creativity, conviction, mission, courage, concept, focus, principle-centered living and change when interacting with others in general. 1.a.12.h: Exhibit skills such as innovation, intuition, adaptation, life-long learning and coach-ability to develop leadership potential over time. 1.a.13.h: Create a sense of trust, positive attitude, integrity, willingness and commitment in order to accept key responsibilities in a group project. 		
Employ teamwork skills to achieve collective goals and use team members/ talents effectively. LE1.b	 1.b.7.h: Capitalize on team members' individual talents and skills in a project. 1.b.9.h: Evaluate and apply teamwork processes that provide team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability and conflict resolution. 1.b.10.h: Demonstrate the ability to negotiate and adapt effectively to changes in projects and work activities to meet timelines. 		
Identify the role of community service and service learning in family, community and business and industry. LE1.c	1.c.6.h: Assess the roles and responsibilities of citizenship and formulate an activity or event to showcase community service.1.c.7.h: Plan a community service event, participate in the		

event and evaluate its impact.
1.c.8.h: Plan and participate in activities that rate skills
necessary to be a successful leader and citizen.
1.c.11.h: Participate in the development of a program of
work/strategic plan and work to implement the
organization's goals.

Key Vocabulary:				
animal welfare	binomial	colostrum	estrus	
	nomenclature			
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- Units and Themes:

Content Outline:

- Introduction to Small Animal Care
 - The Small Animal Industry
 - o Classification of Organisms
- Animal Safety
 - Risks with Small Animals
 - o Zoonoses
- Small Animals as Pets
 - o 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
 - o Anatomy
 - Choosing a Dog
 - o Training
 - o Grooming and Care
 - o Common Diseases
 - o Reproduction

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

Primary Resource(s):

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