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Veterinary technician assistant curriculum guideline

Mickey Ellen Rash

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A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Vocational Education

By
Mickey Ellen Rash
December 2000
VETERINARY TECHNICIAN ASSISTANT CURRICULUM GUIDELINE

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5/23/00
Date
ABSTRACT

It has been projected that by the year 2006 there will be 24,720 persons employed, in the state of California, as members of the professional animal health care team. Almost two thirds of that number will have little or no previous training. The educational requirements for veterinarians and registered veterinary technicians are firmly established with the state. As of this writing, no recognized curriculum guideline/frameworks are established with either the State Department of Education or the California Association of Regional Occupational Centers/Programs addressing the needs of the remaining two thirds.

The purpose of this thesis was to develop a core curriculum to be presented to the state for consideration as the established curriculum guideline for veterinary technician assistants/veterinary assistant programs throughout the state of California. By establishing a standard, every student could have the same training and skills needed to ensure meeting entry-level requirements. The standard will guarantee that every pet and pet owner receives the same high quality care expected from every member of the professional animal health care team.
ACKNOWLEDGMENTS

My Family, who I cherish more than they could ever know.
My very close circle of friends.
Association of Veterinary Technician Educators
California Animal Health Educators Association
California Veterinary Medical Association
Barbara Crane
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Lloyd McCabe Ph.D.
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Paula Pattengale D.V.M.
Ron Pendleton Ph.D.
Joseph Scarcella Ph.D.
Tim Thelander
The many ROP veterinary care programs and their instructors throughout the state who contributed to this labor of love.
DEDICATION

To Kelly

You pushed, poked, and sometimes prodded, but always lifted me up when I needed it. Thank you! I could never have done this without your support.
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CHAPTER ONE

Background

Introduction

The contents of Chapter One presented an overview. The context of the problem was discussed followed by the purpose, significance of the project, and assumptions. Next, the limitations and delimitations that apply to this project were reviewed. Finally, a definition of terms was presented.

Context of the Problem

Animal health care professionals held 20,270 jobs in the state of California in 1996. From this total, 14,620 were employed as animal caretakers or unregistered veterinary assistants. Animal health care professionals in the year 2006 are projected at 24,720. Of that number, 17,550 are animal caretakers and unregistered veterinary assistants (California Employment Development Department, 1996, EDD). In the state of California there are eleven approved veterinary technician programs. Many of the students entering these programs have little or no previous experience in the field of animal care. The few programs throughout the state that do provide formal training include California Regional Occupational Centers/Programs (CAROC/P) and private schools (California Veterinary Medical Association, 1999, CVMA).
The instructors in these Regional Occupational Programs (ROP) and private school programs were forced to create their own curriculum. The reason for this, there is no formal guidelines with the State Department of Education. Each program's content varies with the skill and experience of the instructor (King, 1999). Programs that have a strong articulation agreement with veterinary technician programs tend to have the most acceptable curriculums (Hoffman, 1999).

**Purpose of the Project**

The purpose of this project was to design a two-semester core curriculum guideline for the unregistered veterinary assistant/technician assistant program for high school and adult students. Specifically, the curriculum facilitates students articulating with two veterinary technician programs. One program is offered at California Polytechnic University, Pomona and the other at Mount San Antonio Community College, Walnut. Upon Completion of this Master’s project, this handbook may be the basis for a state/national approved core curriculum for animal and veterinary careers programs.

**Significance of the Project**

Because state guidelines are not in place, a standardized core curriculum was established for students
articulating with the local colleges. These students have a definite advantage over students with no formal training. If a student chooses not to pursue a college degree, the curriculum may stand alone as an excellent tool to prepare the student for the world of work after high school.

Assumptions

The following assumptions were made regarding this project:

1. It was assumed that a standardized core curriculum guideline is needed.
2. It was assumed that once the guideline has been established, it might be utilized throughout the state of California, or nationwide.

Limitations and Delimitations

During the development of this project, a limitation and delimitation are noted. The limitation and delimitation are presented in the next section.

Limitation. The following limitation applies to this project:

1. The technician assistant core curriculum guideline was developed for programs articulating with the veterinary technician programs at California Polytechnic University, Pomona and Mount San Antonio Community College, Walnut.
Delimitation. The following delimitation applies to this project:

1. The core curriculum for veterinary technician assistants may be utilized by any program articulating with a veterinary technician program, or as a stand-alone training program for school to work programs.

Definition of Terms

The following terms are defined as they apply to this project.

Contextual Learning - a conception of teaching and learning that helps teachers relate subject matter content to real world situations and motivates students to make connections between knowledge and its applications to their lives as family members, citizens, and workers and engaged in the hard work that learning requires (U.S. Department of Education Office of Vocational and Adult Education and the National School-to-work Office, 1999).

Curriculum - the sum of the learning activities and experiences that a student has under the auspices or direction of the school (Finch & Crunkilton, 1979, p. 7).

Curriculum Development - a process involving a group of teachers writing objectives for use in their course and,
perhaps other teacher's courses (Finch & Crunkilton, 1979, p. 8).


**Veterinary Technician Assistant** - Same as unregistered veterinary assistant (Pattengale, 2000).

**Unregistered Assistant** - any individuals who are not Board certified RVTs or licensed technicians (Note: this includes freshman and sophomore veterinary students) (California Veterinary Practices Act, 1998, p. 47).

**Veterinarian** - Doctor of Veterinary Medicine (Cochran, 1991, p. 268).

**Zoonotic** - Animal diseases transmittable to people, under natural conditions (Cochran, 1991, p. 271)

**Organization of the Project**

This project was divided into four chapters. Chapter One provides an introduction to the context of the problem, purpose of the project, significance of the project, assumptions, limitation and delimitation and definition of terms. Chapter Two consists of a review of relevant literature. Chapter Three details the steps used in developing this project. Chapter Four presents conclusions and recommendations drawn from the development and
implementation of the project. Finally, the Appendix A consists of five sections. Section 1 - contains the introduction to the handbook. Section 2 - contains the desirable characteristics/personality traits expected from veterinary technician assistants. Section 3 - contains career opportunities as they apply to veterinary health care careers. Section 4 - contains a curriculum guideline/framework consisting of Lesson Title, Lesson Outline; Lesson Objectives; Materials and Equipment; Evaluation, and Comprehension. Section 5 - contains resources collected to develop the curriculum guideline/framework.
CHAPTER TWO

Review of the Literature

Introduction

Chapter two consists of a discussion of the relevant literature. A brief history of the practice of veterinary medicine was discussed. The hierarchy of veterinary practice and the different responsibilities of each level were covered. The education required for each level was detailed. The process of curriculum development and how to ensure that the curriculum remains a vital tool was discussed. Information was referenced through such sources as journals, books, several Internet web pages, Professional Associations, personal communications, and panel discussions.

A Brief History

The practice of the healing arts of veterinary medicine is as ancient as recorded history. The care of animals has been integral in the development of mankind. Animals were first captured as food and then soon domesticated. The earliest description of an animal doctor was seen on a cylindrical seal found in the tomb of the Sumerian King Ur-Ningursu of Lagash in (c.2200-2000 BC). The seal depicts several veterinary type tools. The text in cuneiform describes a healer who gave obstetric and medical care to
animals. During the reign of King Hammurabi (1792-1750 BC) a system of administration was developed that covered all aspects of their society. The practice of veterinary medicine was included. The law stated that if a doctor treated an animal and cured it the owner was to pay the doctor a prescribed amount. If the doctor harmed or killed the animal, then the doctor was to pay the owner a percentage of the worth of the animal (Dunlop & Williams 1996).

The first school of veterinary medicine was founded in 1761 in Lyon, France. Soon after, schools were founded throughout Europe. The first college of veterinary medicine in America was established in 1852 at the College of Philadelphia. These colleges were established to improve livestock and eradicate the diseases that affected them. Studies also included research into communicable and zoonotic diseases (Dunlop & Williams, 1996).

During the past few decades of the twentieth century veterinary medicine progressed in the direction of companion animal medicine. Animals are not thought of only as a food source or as workers, but also close personal companions and beloved family members (North American Veterinary Technician Association, 1999, NAVTA).
The importance of animals/pets in our environment has become an important factor in our well-being. Companion animal medicine is the fastest growing group of veterinary practices in America today. Practices have branched out into such areas as exotics, caged birds, aquarium fish, miniature pigs and miniature horses (Dunlop & Williams, 1996).

The Hierarchy of Veterinary Medicine

Until the 1950's veterinarians trained their own help. These helpers were often called animal attendants or animal assistants. These attendants/assistants were trained to do simple tasks. All technical work was still performed by the veterinarian. In order to meet the increasing demand for excellent animal/pet care and the growing technical skill required to meet those demands, formal academic programs were developed to educate and train these veterinary health care professionals (NAVTA, 1999).

Persons with varying technical skills, education, and certification staff a veterinary hospital. To insure the most positive medical outcome, only those persons with the level of skill required for a procedure should actually perform those procedures. At times, a person is required to perform below their level of training, which is understandable but in keeping with high standards of performance, the opposite should never occur (Association of
Veterinary Technician Educators, 1999 AVTE). The five levels of the veterinary hierarchy are as follows:

Level 5 Veterinarian - Solely responsible for diagnosing, prescribing medication, and surgery.

Level 4 Veterinary Technician Specialist - A veterinary technician in a supervisory position. Also called a head technician.

Level 3 Graduate Veterinary Technician - Persons who have recently graduated from an American Veterinary Medical Association, (AVMA) accredited veterinary technician program and/or have passed the certification requirements for their state.

Level 2 Technician Assistant - Unregistered assistants. These persons may have some training through high school or other programs. The technicians usually train most assistants.

Level 1 Kennel Attendant - Persons trained on the job to perform unskilled labor.

The first job for eighty-five percent of graduating veterinary technicians is in private companion animal practices (AVTE, 1999).

Education Required

In the state of California there is one recognized college of veterinary medicine, The University of
California, Davis. There are eleven accredited veterinary technician programs throughout the state (CVMA, 1999). The basic skills and educational requirements for veterinarians and technicians currently exist. Veterinarians must complete a four-year program and a one-year intern program and pass a state board examination. These requirements must be met in order to practice as a doctor of veterinary medicine. Requirements for the veterinary technician are completion of an accredited program culminating with a two-year degree or certificate of completion. These persons must also pass a state board examination. Completion of a requisite number of hours working in the field of veterinary medicine may also be required (CVMA, 1999).

Currently there are no existing skills or education requirements for the technician’s assistant/animal care attendant position with the State Department of Education, nor with the CAROC/P. Basic skills have not been identified nor have any guidelines been established (King, 1999; McCabe, 1999). These unregistered, sometimes untrained, unskilled assistants comprise seventy-two percent of the entire animal health care team (EDD, 1996).

A basic skills guideline/curriculum framework is needed to ensure that each member of the expanding animal health
care team has the skills needed to guarantee quality animal/pet care.

**Establishing Basic Skills**

The skills required for an unregistered technician assistant should be grounded in excellent reading, writing, math, and science skills. Included with these basic skills, good critical thinking, problem solving, teamwork, and oral communication skills development should also be stressed (Finch & Crunkilton, 1993). Advanced computer skills should also be required to keep pace with today’s demands (Hoffman, 1999).

These basic skills were identified by a panel of educators and technicians in the field of veterinary medicine. California Polytechnic University, Pomona and Mount San Antonio Community College both have veterinary technician programs. Students articulating into their programs will use this guideline. Instructors of these programs were integral in the development of the guideline (Hackett 1999, Hoffman 1999).

These skills should be competency based and encompass all skills required to handle the many aspects of the animal/pet care industry as well as many technical procedures (NAVTA, 1999). According to the California veterinary practices act, a veterinarian, by law, is
responsible for diagnosing, prescribing medications, and performing surgery. A veterinary technician cannot perform the above procedures but is allowed, by law, to induce anesthesia by inhalation or intravenous injection, apply casts and splints, perform dental extractions, and suture existing incisions. Unregistered assistants/kennel attendants are not allowed to perform any of the above procedures (State of California Department of Consumer Affairs, 1998). The remaining health care skills required to provide quality animal/pet care are innumerable. Among these skills are, assisting in surgery, preparing charts, admitting patients, and all laboratory procedures.

Basic skills such as handling and restraint techniques and the knowledge of the nutritional requirements of different species are considered necessary. Administering medications using the prescribed dose and correct method of administration are vital skills that cannot be learned simply by watching or by lecture. These skills must be taught "hands on" (Hackett, 1999; Hoffman, 1999).

**Developing Curriculum**

As stated in Curriculum Development in Vocational and Technical Education, curriculum is "The planned interaction between teachers and students that (hopefully) results in desired learning" (Finch & Crunkilton 1993). Once basic
skills have been identified all curriculum must be based on that framework (Finch & Crunkilton 1993). In order to develop curriculum, it is vital to include professionals in the given area. These professionals make recommendations that may be used by instructors in the classroom.

During research two existing guidelines were discovered, one guideline was developed by The California Animal Health Educators Association (CAHEA) and the other by The Association of Veterinary Technician Educators (AVTE). Several program/course outlines were also collected from programs throughout the state through a communication sent to all ROP's. (Appendix A) With input given by instructors from numerous veterinary assisting programs, veterinarians, and veterinary technicians, a framework was developed. These program/course guidelines were collected, closely scrutinized and combined to produce a guideline/framework that would include all aspects of the animal/pet health industry. New information was included such as development of advanced computer skills, the handling of hazardous materials, and leadership development skills.

Part of the leadership skills development would include involvement with Future Farmers of America (FFA) if the programs were taught at the high school level. According to the California State Department of Education (1999), it has
been projected for the 1990/2000 school year, 54,000 students will be enrolled in agricultural programs throughout the state. FFA involvement can only be suggested and not required for ROP programs since they are not eligible to receive incentive grant money. All public school agricultural programs are required to include FFA in their curriculum and do receive incentive grant monies (McCabe, 1999).

Safety requirements from the California Occupational Safety and Health Association were suggested to be included where applicable. Many new requirements have developed since the old guidelines were written. Requirements such as keeping an inventory of hazardous materials used in the classroom and clearly marking as such were included in the guideline (California Occupational Safety and Health Association (Cal/OSHA), 1999,).

It is up to educators to establish performance outcomes in academic and vocational/technical competencies (Finch & Crunkilton, 1993). The ultimate goal when developing any vocational/technical curriculum is to prepare a student for a position in the workplace. It is desirable to prepare the students not only for a job but also for a career that they, their parents and the community can be proud of (Finch & Crunkilton, 1993). The practice of the healing arts in the
animal health care field is an honorable profession. Their code of ethics is based on the Hippocratic oath. The standard set in 1852 still stands today. Every member of the animal health care team must win the trust of his community to care for their sick animals and maintain a good moral character (Dunlop & Williams, 1993).

Providing For The Future

It has been projected that the number of animal health care professionals in the state of California are expected to increase from 20,270 to 24,720 by the year 2006. From that number 17,500 will be comprised of unregistered technician assistants (EDD, 1996). There are many programs throughout the state providing some kind of training for these individuals, but without a set guideline, each program varies with the instructor’s expertise (King, 1999). Providing a sound, uniform, competency based curriculum guideline may ensure the high quality patient care that our communities expect.

When any guidelines are written, care should be taken to ensure that the most recent information is incorporated into the program it is written for. Issues change, technology improves and educators have a responsibility to keep abreast of these changes. As stated earlier the old guidelines found during research had to be adapted to
conform to standards that were not required when they were written. Every instructor must now catalog hazardous materials. Many veterinary practices now specialize and dangerous drugs and chemicals are used. Oncology centers, hospitals specializing in combating cancer use extremely poisonous drugs and everyone involved must now use set precautions when handling them (Cal/OSHA, 1999). If an instructor are sending their students to any type of practice where there are known hazards, it is the instructors responsibility to prepare them.

To ensure that curriculum remains current each instructor has the mandated responsibility to establish an advisory committee. The members of this committee should consist of persons who are currently practicing in the subject areas that are taught. There should be a minimum of five members (CAROC/P, 1999). One of the most important duties of an advisory committee are to review course outlines and curriculums (Finch & Crunkilton, 1996). Curriculum evaluation helps a program to stay current with technology.

It would be impossible to change an entire curriculum all at once, but small changes over time can keep a curriculum fresh and students interested. Curriculum review should always have a positive impact on the curriculum,
program or materials. Evaluation has the potential to assist vocational educators in making meaningful improvements. Only those changes should be made that benefit the students most (Finch & Crunkilton, 1993).

Summary

A brief history of the practice of veterinary medicine was discussed. The hierarchy of veterinary practice and the responsibilities for each level was detailed. The education required for each level and the justification for the need of a curriculum guideline for the unregistered technician assistant was made clear. The process for developing a curriculum framework that all instructors will be able to utilize in their classrooms was outlined. Finally, the need for reevaluation of the guideline on a regular basis in order to ensure a positive outcome for all students was discussed.
CHAPTER THREE

Methodology

Introduction

Chapter Three details the steps used in developing the project. Specifically, the population served was discussed. Next, the curriculum development process including curriculum structure and content validation was presented. The chapter concludes with a summary.

Population Served

The project was developed for students ages 16 through adult who will be articulating with the veterinary technician programs offered at California Polytechnic University, Pomona and/or Mount San Antonio Community College, Walnut. The core curriculum is appropriate for use in any veterinary health care program that will articulate with a veterinary technician program or for use as a tool for the world of School to Work. It was developed in accordance with the guidelines set forth by the animal and veterinary careers steering committee whose members work in the area of the programs served. The members of the steering committee included Jean Hoffman RVT, Director, Veterinary Technology program Mount San Antonio community College. Also serving were representatives from the California Animal Health Educators Association and instructors from local ROP
programs in the animal health care field. Acting as consultants were Lloyd McCabe, Agriculture Consultant for the California State Department of Education and Paula Pattengale DVM, for The Association of Veterinary Technician Educators.

**Curriculum Development**

The next section of the project provides an overview of the curriculum development process. Specifically, the curriculum structure and content validation process are reviewed.

**Curriculum Design**

This core curriculum guideline was developed in accordance with the outline put forward by the Animal and Veterinary Careers steering committee. As stated in Chapter One the need for unregistered veterinary technician assistants has been identified and the absence of a state approved guideline has been identified. Through careful scrutiny of two existing outlines, one produced by CAHEA, the other by AVTE, and several program outlines provided by instructors throughout the state, the steering committee identified the areas of basic skills required for an unregistered veterinary technician assistant. The competencies identified as essential to obtaining and maintaining meaningful employment were included in the
curriculum. Through a consensus of the steering committee the following outline was developed. The outline consists of the following: (1) lesson title; (2) lesson outline; (3) lesson objectives; (4) materials and equipment; (5) evaluation; (6) comprehension. There are no prerequisites for this class, although good math, science and English skills and computer knowledge are strongly recommended.

Course Content (2 Semester Program)

1. Rules and Regulations
   A. Classroom
   B. Course/ Program
   C. Industry Rules
      a. Human
      b. Animal
   D. Laws
   E. Ethics
      a. Confidentiality
   F. Emergency Procedures
   G. Cal/OSHA Requirements

2. Safety
   A. Personal
      a. Classroom
      b. Industry

3. Career Opportunities
A. Types
B. Prerequisites

4. Personal Grooming
   A. Classroom
   B. Industry

5. Handling and Restraint
   A. Medical Procedures
   B. Chemical Restraint
   C. Physical restraint
   D. Psychological (moral) Restraint
   E. Mechanical Restraint

6. Animal Behavior and Observation
   A. Normal
   B. Abnormal

7. Communications
   A. Verbal
   B. Non-Verbal
   C. Interpersonal Relationships
   D. Human-Animal Bond

8. Office Procedures
   A. Records
   B. Finance Handling
   C. Inventory
   D. Client Information
E. Waiting Room Etiquette
F. Marketing Skills
G. Advanced Computer Skills

9. Job Search
   A. Applications
   B. Resumes
   C. Interviewing skills
   D. Job retention
   E. Job Exit

10. Terminology
    A. Prefix
    B. Suffix
    C. Abbreviation
    D. Root Words

11. Cleaning and Sanitation
    A. Definitions
    B. Types of Sanitation
    C. Methods
    D. Products
    E. Equipment

12. Species and Breeds
    A. Dogs
    B. Cats
    C. Birds
D. Reptiles
E. Laboratory Animals
F. Domesticated Farm Animals

13. Common Grooming Procedures
   A. Common Equipment and Tools
   B. Shampoos and Dips
   C. Dryers
   D. Clippers and Blade Numbers
   E. Cal/OSHA Requirements

14. Nutrition
   A. Essential Nutrients
   B. Fluid Requirements
   C. Understanding Feed Labels
   D. Special Diets

15. Anatomy and Physiology
   A. Reproductive System
   B. Digestive
   C. Urinary
   D. Skeletal
   E. Circulatory
   F. Endocrine
   G. Muscular
   H. Lymphatic
   I. Respiratory
16. Common Diseases
   A. Parasitic
   B. Viral
   C. Bacterial
   D. Fungal
   E. Protozoan
   F. Zoonotic

17. Disease Prevention and Immunology
   A. Common Vaccination Programs
   B. Concepts of Immunology

18. Normal Values
   A. Temperature, Pulse, Respiration
   B. Gestation
   C. Birth weight
   D. Litter Size

19. Laboratory Skills
   A. Medical Math
   B. Equipment
   C. Handling Specimens
   D. Common Laboratory Procedures
   E. CAL/OSHA

20. Pharmacology
   A. Recognize Common Drugs
B. Read Labels
C. Fill Prescription
D. Explain Client Instructions
E. Inventory, Stock and Reorder
F. Drug Schedules
G. Route of Administration
H. CAL/OSHA Requirements

21. Emergency Procedures
   A. Equipment use and Identification
   B. Recognize Symptoms of Shock/Trauma
   C. CPR-Small Animals

22. Radiology
   A. Theory
   B. Safety (Cal/OSHA)
   C. Loading cassettes
   D. Changing Chemicals
   E. Darkroom Technique
   F. Positioning- Restraint
   G. OFA- Orthopedic Foundation of America
   H. Penn-Hip

23. Common Surgical Procedures
   A. Aseptic Technique
   B. Instrument Identification
   C. Surgical Pack Preparation
D. Surgical Room Conduct
E. Foxtail Removal
F. Ovariohysterectomy
G. Castration
H. Abscesses
I. Dentistry (Dental Formulas, Recognizing Abnormalities and Gum Diseases)
J. Anal Sac Procedures

24. Student Leadership Development
   A. Leadership Skills and Development
   B. Speaking Skills Development
   C. Community Involvement
   D. Interpersonal Skills Development

25. Animal Research Project
   A. Development of Animal Research Project
   B. Statistical Management of Project
   C. Instructional coordination
   D. Analysis of Project Results

Content Validation

When developing a curriculum, "the outcome will be a vocational and technical curriculum that is data-based, dynamic, explicit in its outcomes, fully articulated, realistic, student oriented, evaluation-conscious, and futures-oriented" (Finch and Crunkilton, 1979, p. 14). This
sentiment was shared by the steering committee. To ensure that this curriculum guideline remains contextual, meaning that all learning can be applied to real world situations, and provides students with a meaningful and engaged learning experience, the committee recommended yearly updating of the guideline. Suggested changes for improvement were incorporated into the curriculum. Gerald Hackett, DVM, Director of the Veterinary Technology Program, California Polytechnic University, Pomona, reviewed and approved the final draft of the curriculum.

Summary

The steps used to develop this project were outlined. The target populations for this course are veterinary technician students articulating with the two veterinary technology programs included in this project. The curriculum development process including curriculum structure and content was presented. Upon completion, this curriculum guideline/framework was the basis for the requirements submitted to the State Department of Education for consideration. This might be the first course outline required in California for veterinary technician assistant programs.
CHAPTER FOUR

Conclusions and Recommendations

Introduction

Included in Chapter Four are a presentation of the conclusions gleaned as a result of completing this project. Further, the recommendations extracted from this project are presented. Lastly, the Chapter concludes with a summary.

Conclusions

The conclusion extracted from this project follow:

1. In researching for this project, the conclusion was made that since no guidelines exist, the development of a current guideline was necessary.

2. Current programs can be limited by the lack of training in the instructors and the curriculum established by these same instructors.

Recommendations

The recommendations resulting from this project follow:

1. Further development of the curriculum should include the writing of lessons and comprehension/evaluation materials.

2. It was strongly recommended that technician assistant programs should be taught by veterinarians.
or registered veterinary technicians to ensure quality instruction.

Summary

Chapter Four reviewed the conclusions derived from this project. Lastly, the recommendations extracted from this project were presented.
Appendix

Veterinary Technician Assistants Curriculum Guideline
Veterinary Technician Assistants Curriculum Guideline
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Forward

The following handbook is simply a tool to ensure classroom excellence. Students considering a career in the animal health care field receive better instruction when curriculum is consistent throughout the state. Programs that have strong articulation agreements with veterinary technology programs tend to have better curriculum. Standardizing statewide curriculum ensures that every student could have the same training and skills needed to ensure meeting entry-level requirements. The standard will guarantee that every pet and pet owner receives the same high quality care expected from every member of the professional animal health care team.
Section 1

Introduction
A Brief History

The practice of the healing arts of veterinary medicine is as ancient as recorded history. The care of animals has been integral in the development of mankind. Animals were first captured as food and then soon domesticated. The earliest description of an animal doctor was seen on a cylindrical seal found in the tomb of the Sumerian King Ur-Ningursu of Lagash in (c.2200-2000 BC). The seal depicts several veterinary type tools. The text in cuneiform describes a healer who gave obstetric and medical care to animals. During the reign of King Hammurabi (1792-1750 BC) a system of administration was developed that covered all aspects of their society. The practice of veterinary medicine was included. The law stated that if a doctor treated an animal and cured it the owner was to pay the doctor a prescribed amount. If the doctor harmed or killed the animal, then the doctor was to pay the owner a percentage of the worth of the animal.

The first school of veterinary medicine was founded in 1761 in Lyon, France. Soon after, schools were founded throughout Europe. The first college of veterinary medicine in America was established in 1852 at the College of Philadelphia. These colleges were established to improve livestock and eradicate the diseases that affected them.
Studies also included research into communicable and zoonotic diseases.

During the past few decades of the twentieth century veterinary medicine progressed in the direction of companion animal medicine. Animals are not thought of only as a food source or as workers, but also close personal companions and beloved family members.

The importance of animals/pets in our environment has become an important factor in our well-being. Companion animal medicine is the fastest growing group of veterinary practices in America today. Practices have branched out into such areas as exotics, caged birds, aquarium fish, miniature pigs and miniature horses.

**The Hierarchy of Veterinary Medicine**

Until the 1950’s veterinarians trained their own help. These helpers were often called animal attendants or animal assistants. These attendants/assistants were trained to do simple tasks. All technical work was still performed by the veterinarian. In order to meet the increasing demand for excellent animal/pet care and the growing technical skill required to meet those demands, formal academic programs were developed to educate and train these veterinary health care professionals.
Persons with varying technical skills, education, and certification staff a veterinary hospital. To insure the most positive medical outcome, only those persons with the level of skill required for a procedure should actually perform those procedures. At times a person is required to perform below their level of training, which is understandable but in keeping with high standards of performance the opposite should never occur. The five levels of the veterinary hierarchy are as follows:

**Level 5 Veterinarian** - Solely responsible for diagnosing, prescribing medication, and surgery.

**Level 4 Veterinary Technician Specialist** - A veterinary technician in a supervisory position. Also called a head technician.

**Level 3 Graduate Veterinary Technician** - Persons who have recently graduated from an American Veterinary Medical Association, (AVMA) accredited veterinary technician program and/or have passed the certification requirements for their state.

**Level 2 Technician Assistant** - Unregistered assistants. These persons may have some training through high school or other programs. The technicians usually train most assistants.

**Level 1 Kennel Attendant** - Persons trained on the job to
perform unskilled labor.

The first job for eighty-five percent of graduating veterinary technicians is in private companion animal practices.

**Education Required**

In the state of California there is one recognized college of veterinary medicine, The University of California, Davis. There are eleven accredited veterinary technician programs throughout the state. The basic skills and educational requirements for veterinarians and technicians currently exist. Veterinarians must complete a four-year program and a one-year intern program and pass a state board examination. These requirements must be met in order to practice as a doctor of veterinary medicine. Requirements for the veterinary technician are completion of an accredited program culminating with a two-year degree or certificate of completion. These persons must also pass a state board examination. Completion of a requisite number of hours working in the field of veterinary medicine may also be required.

Currently there are no existing skills or education requirements for the technician’s assistant/animal care attendant position with the State Department of Education, or with the CAROC/P. Basic skills have not been identified
nor have any guidelines been established. These unregistered, sometimes untrained, unskilled assistants comprise seventy-two percent of the entire animal health care team.

A basic skills guideline/curriculum framework is needed to ensure that each member of the expanding animal health care team has the basic skills needed to guarantee quality animal/pet care.

Establishing Basic Skills

The skills required for an unregistered technician assistant should be grounded in excellent reading, writing, math, and science skills. Included with these basic skills, good critical thinking, problem solving, teamwork, and oral communication skills development should be stressed. Advanced computer skills should also be required to keep pace with today's demands.

These basic skills were identified by a panel of educators and technicians in the field of veterinary medicine. California Polytechnic University, Pomona and Mount San Antonio Community College both have veterinary technician programs. Students articulating into their programs will use this guideline. Instructors of these programs were integral in the development of the guideline.
These skills should be competency based and encompass all skills required to handle the many aspects of the animal/pet care industry as well as many technical procedures. According to the California veterinary practices act, a veterinarian, by law, is responsible for diagnosing, prescribing medications, and performing surgery. A veterinary technician cannot perform the above procedures but is allowed, by law, to induce anesthesia by inhalation or intravenous injection, apply casts and splints, perform dental extractions, and suture existing incisions. Unregistered assistants/kennel attendants are not allowed to perform any of the above procedures. The remaining health care skills required to provide quality animal/pet care are innumerable. Among these skills are, assisting in surgery, preparing charts, admitting patients, and all laboratory procedures.

Basic skills such as handling and restraint techniques and the knowledge of the nutritional requirements of different species are considered necessary. Administering medications using the prescribed dose and correct method of administration are vital skills that cannot be learned simply by watching or by lecture. These skills must be taught "hands on."

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Developing Curriculum

As stated in Curriculum Development in Vocational and Technical Education, curriculum is "The planned interaction between teachers and students that (hopefully) results in desired learning." Once basic skills have been identified all curriculum must be based on that framework. In order to develop curriculum, it is vital to include professionals in the given area. These professionals make recommendations that may be used by instructors in the classroom.

During research two existing guidelines were discovered, one by The California Animal Health Educators Association and the other by The Association of Veterinary Technician Educators. Several program/course outlines were also collected from programs throughout the state through a communication sent to all ROP's. With input given by instructors from numerous veterinary assisting programs, veterinarians, and veterinary technicians, a framework was developed. These program/course guidelines were collected, closely scrutinized and combined to produce a guideline/framework that would include all aspects of the animal/pet health industry. New information was included such as development of advanced computer skills, the handling of hazardous materials, and leadership development skills.
Part of the leadership skills development would include involvement with Future Farmers of America (FFA) if the programs were taught at the high school level. According to the California State Department of Education, it has been projected for the 1990/2000 school year, 54,000 students will be enrolled in agricultural programs throughout the state. FFA involvement can only be suggested and not required for ROP programs since they are not eligible to receive incentive grant money. All public school agricultural programs are required to include FFA in their curriculum and do receive incentive grant monies.

Safety requirements from the California Occupational Safety and Health Association were suggested to be included where applicable. Many new requirements have developed since the old guidelines were written. Requirements such as keeping an inventory of hazardous materials used in the classroom and clearly marking as such were included in the guideline.

It is up to educators to establish performance outcomes in academic and vocational/technical competencies. The ultimate goal when developing any vocational/technical curriculum is to prepare a student for a position in the workplace. It is desirable to prepare the students not only for a job but also for a career that they, their parents and
the community can be proud of. The practice of the healing arts in the animal health care field is an honorable profession. Their code of ethics is based on the Hippocratic oath. The standard set in 1852 still stands today. Every member of the animal health care team must win the trust of his community to care for their sick animals and maintain a good moral character.

**Providing For The Future**

It has been projected that the number of animal health care professionals in the state of California are expected to increase from 20,270 to 24,720 by the year 2006. From that number 17,500 will be comprised of unregistered technician assistants. There are many programs throughout the state providing some kind of training for these individuals, but without a set guideline each program varies with the instructor’s expertise. Providing a sound, uniform, competency based curriculum guideline may ensure the high quality patient care that our communities expect.

When any guidelines are written, care should be taken to ensure that the most recent information is incorporated into the program it is written for. Issues change, technology improves and educators have a responsibility to keep abreast of these changes. As stated earlier the old guidelines found during research had to be adapted to
conform to standards that were not required when they were written. Every instructor must now catalog hazardous materials. Many veterinary practices now specialize and dangerous drugs and chemicals are used. Oncology centers, hospitals specializing in combating cancer use extremely poisonous drugs and everyone involved must now use set precautions when handling them. If instructors are sending their students to any type of practice where there are known hazards, it is the instructors responsibility to prepare them.

To ensure that curriculum remains current each instructor has the mandated responsibility to establish an advisory committee. The members of this committee should consist of persons who are currently practicing in the subject areas that are taught. There should be a minimum of five members. One of the most important duties of an advisory committee are to review course outlines and curriculums. Curriculum evaluation helps a program to stay current with technology.

It would be impossible to change an entire curriculum all at once, but small changes over time keeps a curriculum fresh and students interested. Curriculum review should always have a positive impact on the curriculum, program or materials. Evaluation has the potential to assist vocational
educators in making meaningful improvements. Only those changes should be made that benefit students most.

Information was referenced through such sources as journals, books, several Internet web pages, Professional Associations, personal communications, and panel discussions.
Section 2

Traits for Vet-Assistants
A student in the field of animal health care should be of good moral character. In order for a student to be successful as a veterinary technician's assistant he/she should possess the following attitudes, characteristics, and personality traits.

1. Communicates effectively with others
2. Ability to follow direction
3. Works well with others
4. Willingness to perform menial chores
5. Honesty
6. Safety consciousness
7. Habits of cleanliness and neatness
8. Desire to be accurate and precise in performance
9. Promptness
10. Respect for confidentiality of information
11. Appropriate dress and grooming for the work being performed.
12. Understanding of the necessity for sanitary practices
13. Reliability
14. Initiative
15. Exhibits a desire to continue to learn
16. Accepts responsibility and follows through
17. Takes pride in work
18. Courteousness
Section 3

Career Opportunities
Upon completion of this curriculum, the student should have obtained the skills required for entry-level employment in the following career options. These skills should be competency based and should encompass all of the skills required to handle the many aspects of the pet care industry as well as many technical procedures.

Veterinary Technician Assistant
Animal Control Officer I
Grooming Assistant
Animal Bather
Kennel Attendant
Laboratory Animal Assistant
Pet shop Attendant
Stable Attendant
Lesson Title: Rules and Regulations

Lesson Outline:
1. Classroom
2. Course/Program
3. Industry Rules
   a. Human
   b. Animal
4. Laws
5. Ethics
   a. Confidentiality
6. Emergency Procedures

Lesson Objectives:
Upon completion of this unit student will:
1. Demonstrate appropriate classroom behavior.
2. Be familiar with course/program objectives.
3. Have developed an understanding of and comply with industry rules and regulations regarding humans and animals.
4. Be familiar with laws governing animal health related industries.
5. Be familiar with industry ethics and confidentiality.
6. Demonstrate appropriate emergency procedure protocol.

Materials and Equipment:
None

Evaluation:
Demonstration of above objectives.

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Safety

Lesson Outline:
1. Personal
   a. Classroom
   b. Industry

Lesson Objectives:
Upon completion of this lesson the student will be able to:
1. Know and demonstrate the principals of safe handling, apprehension, restraint and transportation of animals in order to minimize risk of injury to the handler and the animal.
2. Demonstrate techniques and procedures that insure personal safety when working around common hazards in the classroom and worksite.
3. Be familiar with defensive driving procedures and appropriate, safe use of vehicles in animal rescues and apprehensions.
4. Be familiar with the legal and practical requirements for safe usage, storage and itemization of unsafe chemicals and narcotic drugs used in animal clinics and shelters.

Material and Equipment:
Standard animal "catch pole" and other restraint devices commonly used.

Evaluation:
Students will demonstrate proficiency by correctly applying muzzles to dogs and cats and assisting instructor in restraining animals for veterinary type exams and injections.

Comprehension:
Student will complete each lesson with 100% accuracy before proceeding to the next unit.
Lesson Title: Career Opportunities

Lesson Outline:
1. Types of Careers
2. Prerequisites for Careers

Lesson Objective:
Upon completion of this lesson the student will:
1. List career opportunities and their educational/industry requirements in the animal and veterinary field.

Material and Equipment:
None

Evaluation:
Students will evaluate different careers and be aware of entry-level requirements for each.

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Personal Grooming

Lesson Outline:
1. Classroom
2. Industry

Lesson Objectives:
Upon completion of this lesson the student will:
1. Be aware of and practice appropriate personal grooming for the workplace and classroom.
2. Be aware of and practice appropriate attire for the workplace and classroom.

Materials:
Two posters, (created by the students)- One with picture depicting appropriate attire and grooming, the other depicting inappropriate grooming and attire.

Evaluation:
A quiz, asking students to list several points to follow in regards to proper attire and grooming in the workplace and classroom.

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Handling and Restraint

Lesson Outline:
1. Medical Procedures
2. Chemical Restraint
3. Physical Restraint
4. Psychological (Moral) Restraint
5. Mechanical Restraint

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Safely handle and restrain small and large animals for common medical procedures.
2. Understand the use and hazards of chemicals and drugs as restraint tools.
3. Demonstrate and effectively use physical, mechanical, psychological (moral) restraint to control animals.

Materials and Equipment:
Devices commonly used to restrain large and small animals for common medical procedures.

Evaluation:
Students will successfully apply the appropriate restraint techniques for common medical procedures on small and large animals.

Comprehension:
All students will complete each lesson of this unit with 100% accuracy before proceeding to the next unit.
Lesson Title: Animal Behavior and Observation

Lesson Outline:
1. Normal Behavior
2. Abnormal Behavior
   a. Danger signs
   b. Common Causes

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Recognize normal behavior in animals.
2. Be familiar with the various types of behavior displayed by animals.
3. Quickly recognize abnormal animal behavior.
4. Be familiar with animal perception.
5. Recognize the varied dangerous (aggressive) signs displayed by animals.
6. Recognize and identify the offensive and defensive weapons used by each species.

Material and Equipment:
None

Evaluation:
Student will successfully identify normal and abnormal behavior in small and large animals.

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Communications

Lesson Outline:
1. Verbal
   a. Telephone
2. Nonverbal
   a. Written
   b. Body Language
3. Interpersonal Relations
   a. Clients
   b. Coworkers
4. Human-Animal Bond
   a. Types
   b. Euthanasia

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Use appropriate telephone skills that result in a positive image and effective communications with the public.
2. Use appropriate radio communication techniques and language.
3. Use nonverbal communications in an appropriate manner.
4. Effectively interact with coworkers and the public.
5. Understand the importance of the human-animal bond as it applies to companion, laboratory and farm animals.
6. Understand the bereavement process and the stages of grief.
7. Understand the methods of and reasons for euthanasia.

Materials and Equipment:
None

Evaluation:
Students will engage in mock telephone calls and client interactions, addressing situations in a clinical setting.

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Office Procedures

Lesson Outline:
1. Records
2. Finance Handling
3. Inventory
4. Client Information
5. Waiting Room Etiquette
6. Marketing Skills
7. Advanced Computer Skills

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Successfully record all pertinent information and correctly enter information to the appropriate forms or records.
2. Properly handle finances, including cash, checks and processing credit cards.
3. Handle inventory in an efficient and cost effective manner, including proper stocking and reordering.
4. Understand patient privacy and ethics.
5. Explain the importance of a pleasant waiting room environment.
6. Demonstrate good marketing skills.
7. Operate computers effectively in an office setting dealing with the day-to-day operations of a veterinary clinic.

Materials and Equipment:
None

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Job Search

Lesson Outline:
1. Applications
2. Resumes
3. Interviewing Skills
4. Job Retention
5. Job Exit

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Properly complete a job application.
2. Generate a current resume.
3. Demonstrate proper conduct and dress during a job interview.
4. Demonstrate job retention skills and proper job exit protocol.

Materials and Equipment:
Blank job application forms

Evaluation:
Students will create a current resume and successfully complete mock interviews.

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Terminology

Lesson Outline:
1. Prefixes
2. Suffixes
3. Abbreviations
4. Root Words

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Successfully use prefixes and suffixes in formation of medical and technical terms.
2. Be familiar with abbreviations and acronyms used in animal related businesses.
3. Understand the use of both English and Latin root words used in medical terminology.

Materials and Equipment:
Students will use the Taber’s Veterinary Dictionary as a source of words used in terminology.

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 95% accuracy before proceeding to the next unit.
Lesson Title: Cleaning and Sanitation

Lesson Outline:
1. Definitions
2. Guidelines
   a. Classroom
   b. Industry
3. Types of Sanitation
4. Methods
5. Products
6. Equipment
7. Cal/OSHA Requirements

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Define terms and distinguish between cleaning, sanitation and sterilization.
2. Practice correct sanitation procedures in animal care facilities.
3. List the types of chemicals, methods, products, and equipment used in sanitation.
4. Understand the principles of animal facility design, operations and maintenance.
5. Be familiar with applicable state and local laws.
6. Understand the rationale and technique of animal isolation and segregation.
7. Know the importance of sanitation and cleaning of veterinary and animal control vehicles.
8. Know the appropriate use and hazards of chemicals used in sanitation.

Materials and Equipment:
None

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Species and Breeds

Lesson Outline:
1. Species Identification
2. Breed Identification
3. Breed Idiosyncrasies

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Identify each species using the Latin definition.
2. Recognize and identify the breeds of dogs, cats, domestic farm animals, and other animals found in laboratories and pet shops.
3. Correctly determine the age and sex of these animals.
4. Understand the normal/abnormal behavior of these animals.
5. Identify the standards for color, hair length, markings or distinctive features for each breed.

Materials and Equipment:
Breed charts
AKC/CFA breed charts

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Grooming Procedures

Lesson Outline:
1. Equipment and Tools
2. Shampoos and Dips
3. Dryers
4. Clippers and Blade Numbers
5. Cal/OSHA Requirements

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Recognize and identify equipment commonly used in grooming procedures such as, brushes, combs, nail clippers, and rakes.
2. Properly handle, mix and use shampoos and insecticidal dips.
3. Regulate the temperature and positioning of stand, cage and hand held dryers.
4. Identify and properly use different numbered clipper blades and clippers.
5. Familiar with proper handling and disposal of hazardous materials.

Materials and Equipment:
Any materials available for common grooming procedures.

Evaluation:
Grooming demonstrations

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Nutrition

Lesson Outline:
1. Essential Nutrients
   a. Vitamins
   b. Minerals
   c. Fluids
   d. Fats
   e. Carbohydrates
2. Special Diets
3. Understanding Labels

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Be familiar with the major elements of nutrition.
2. Recognize the need for special diets.
3. Correctly read and interpret animal feed labels.

Materials and Equipment:
Feed Labels
Feed samples

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Anatomy and Physiology

<table>
<thead>
<tr>
<th>Lesson Outline:</th>
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<tbody>
<tr>
<td>1. Reproductive</td>
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<tr>
<td>a. Genetics</td>
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<td>2. Digestive</td>
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<td>3. Urinary</td>
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<td>4. Skeletal</td>
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<td>5. Circulatory</td>
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<td>6. Endocrine</td>
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<td>7. Muscular</td>
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<td>8. Lymphatic</td>
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<td>9. Respiratory</td>
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<td>10. Central Nervous System</td>
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<thead>
<tr>
<th>Lesson Objective:</th>
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<tbody>
<tr>
<td>Upon completion of this unit the student will be able to:</td>
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<tr>
<td>1. Identify the various structures of each system discussed.</td>
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<tr>
<td>2. Explain the function of each system discussed.</td>
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<table>
<thead>
<tr>
<th>Materials and Equipment:</th>
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<tbody>
<tr>
<td>Handouts of each anatomical system</td>
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<th>Evaluation:</th>
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<td>Quiz</td>
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<tr>
<th>Comprehension:</th>
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<tbody>
<tr>
<td>All students will complete each lesson of this unit with 70% accuracy before proceeding to the next unit.</td>
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</table>
Lesson Title: Common Diseases

Lesson Outline:
1. Parasitic
2. Viral
3. Bacterial
4. Fungal
5. Protozoan
6. Zoonotics
   a. public health aspects

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Define what is meant by "Disease."
2. Recognize and identify common internal and external parasites, their hosts, life cycles and control practices.
3. Discuss common contagious diseases and their etiology.
4. Identify the diseases that pose a public health hazard.

Materials and Equipment:
None

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Disease Prevention and Immunology

Lesson Outline:
1. Common Vaccination Programs
2. Concepts of immunology

Lesson objectives:
Upon completion of this unit the student will be able to:
1. Be familiar with common vaccination requirements and schedules.
2. Explain how the immune system functions.
3. Explain different types of immunity.
4. Differentiate between the different types of vaccines.
5. Differentiate between hypodermic needle gauges, lengths, and uses.
6. Demonstrate Sub-Q, Intradermal and Intramuscular injection sites and techniques.

Materials and Equipment:
Various vaccination containers
Various needles and syringes

Evaluation:
Students will successfully vaccinate animals.

Comprehension:
All students will complete each unit of this lesson with 80% accuracy before proceeding to the next unit.
Lesson Title: Normal Values

Lesson Outline:
1. Temperature, Pulse and Respiration Rates.
2. Gestation Periods
3. Birth Weights
4. Litter sizes

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Be familiar with the common physiological data of companion, laboratory and farm animals.
2. Obtain normal values from companion, laboratory and farm animals using correct data and measuring devices.

Materials and Equipment:
Stethoscope and thermometer

Evaluation:
Quiz

Comprehension:
All students will complete each unit of this lesson with 80% accuracy before proceeding to the next unit.
Lesson Title: Laboratory Skills

Lesson Outline:
1. Medical Math
   a. Metric
   b. Conversions
2. Equipment
   a. Identification
   b. Proper use and care
3. Specimens
   a. Proper collection and handling procedures.
4. Common Laboratory Procedures
   a. Fecal
   b. Blood
   c. Urine

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Successfully convert metric and English units of measurement.
2. Identify and properly care for laboratory equipment.
3. Properly collect, handle, and prepare specimens for common laboratory procedures.

Materials and Equipment:
Various blood collection tubes
Fecalizer tubes

Evaluation:
Quiz

Comprehension:
All students will complete each unit of this lesson with 80% accuracy before proceeding to the next unit.
Lesson Title: Pharmacology

Lesson Outline:
1. Common Drugs and Labels
2. Filling a Prescription
3. Explaining Client Instructions
4. Routes of Administration
5. Inventory
6. Schedule Drugs
7. Cal/OSHA Requirements

Lesson Objectives:
Upon completion of this lesson the student will be able to:
1. Define Pharmacology
2. Recognize drugs commonly used in veterinary and animal care related facilities and understand the information contained on the drug label.
3. Identify common drug categories and how they are used.
4. Be familiar with common abbreviations and symbols used in writing and filling prescriptions.
5. Explain medical application of prescriptions to clients.
6. Know the different routes in which a medication can be administered.
7. Be familiar with stock rotation and inventory procedures.
8. Be aware of laws pertaining to schedule drugs and hazardous materials.

Materials and Equipment:
Various medications representing each drug category.

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Emergency Procedures

Lesson Outline:
1. Equipment Identification and Use.
2. Symptoms of Shock and Trauma
3. CPR

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Identify drugs and equipment used in emergency procedures.
2. Explain evaluation techniques from minor to very severe injuries.
3. Perform monitoring techniques including pulse, respiration rate, Capillary Refill Time (CRT), and Packed Cell Volume (PCV)
4. Identify Symptoms of shock, the causes and types of shock.
5. Perform CPR on small animal patients.

Materials and Equipment:
Stethoscope, Endotracheal tube, Thermometer

Evaluation:
CPR techniques
Quiz

Comprehension:
All students will complete each unit of this lesson with 80% competency before proceeding to the next unit.
Lesson Title: Radiology

Lesson Outline:
1. Theory
2. Safety (Cal/OSHA)
3. Loading Cassettes and Handling Film
4. Changing Chemicals
5. Darkroom Techniques
6. Positioning and Restraint
7. OFA and Penn-Hip Requirements

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Understand the nature of radiation.
2. List the safety procedures for taking and developing radiographs.
3. Distinguish between and properly load screen and non-screen film cassettes.
4. List procedure for changing chemicals used for developing radiographs.
5. Practice proper darkroom technique.
6. Position animals for taking radiographs.
7. Be familiar with guidelines and regulations for taking OFA and Penn-Hip radiographs.

Materials and Equipment:
Used radiographs
Film cassettes

Evaluation:
Quiz

Comprehension:
All students will complete each unit of this lesson with 80% accuracy before proceeding to the next unit.
Lesson Title: Common Surgical Procedures

Lesson Outline:
1. Aseptic Technique
2. Instrument Identification
3. Surgical Pack Preparation
4. Surgical Room Conduct
5. Foxtail Removal
6. Anal Sac Procedure
7. Ovariohysterectomy
8. Abscesses
9. Dentistry

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Conduct proper surgical room protocol
2. Identify common surgical/medical procedures such as spays, neuters, foxtail removal, abscesses and anal sac evacuation.
3. Identify, clean, and prepare instruments used in surgery and other medical procedures.
4. Recognize dental abnormalities and symptoms of gum disease.
5. Know dental formulas

Materials and Equipment:
Common surgical tools and supplies for packs
Surgical gowns, gloves and masks

Evaluation:
Quiz

Comprehension:
All students will complete each lesson of this unit with 80% accuracy before proceeding to the next unit.
Lesson Title: Student Leadership Development

Lesson Outline:
1. Leadership Skills Development
2. Public Speaking Skills Development
3. Community Involvement
4. Interpersonal Skills Development

Lesson Objectives:
Upon completion of this unit the student will be able to:
1. Undertake leadership roles in the classroom and community.
2. Be aware of cultural diversity in the community and be sensitive to these differences.
3. Develop public speaking skills through classroom presentations and extemporaneous or prepared public speaking engagements/competitions.
4. Understand group dynamics and conflict resolution techniques.
5. Understand the concepts of sexual harassment.

Materials and Equipment:
None

Evaluation:
Public speaking engagement/competitions
Quiz

Comprehension:
All students will complete each unit of this lesson with 80% accuracy before proceeding to the next unit.
**Lesson Title:** Animal Research Project

**Lesson Outline:**
1. Development of Animal Research Project
2. Statistical Management of Project
3. Instructional coordination
4. Analysis of Project Results

**Lesson Objectives:**
Upon completion of this unit the student will be able to:
1. Develop and maintain an animal research project related to the subject being taught.
2. Keep accurate records, including feed, medical, etc. of said project.
3. Work closely with instructor while project is being developed.
4. Analyze results of project as to cost effectiveness and expected outcomes comparisons upon completion of project.

**Materials and Equipment:**
Record Books

**Evaluation:**
Instructor will evaluate each project individually and make periodic checks of students record keeping accuracy.

**Comprehension:**
All students will complete each unit of this lesson with 80% accuracy before proceeding to the next unit.
Section 5

Resources for Project
The following program guidelines were collected from programs throughout the state through a communication sent to all ROP programs. These guidelines were then collected, closely scrutinized, and combined to produce a curriculum guideline that would include all aspects of the animal health care industry.
Michele Rash
3071 Sunset Court
Norco, CA. 91760
(909) 734-7191

Dear Sir or Madam:

I am contacting you to request some information about enrollment in animal care classes. I have been an ROP instructor for twelve years in the animal health care field. I am in the Master's program at Cal State University at San Bernardino. After much research I have discovered that there are still not any standard curriculum guidelines with the state department. My goal for the master's thesis project is to design an acceptable curriculum guideline for animal care programs throughout the state. The information that I will need can help me to justify the need for a guideline. The information I will need from you is.....

1. Enrollment for the 98-99 school year in any animal related classes.
2. A copy of the curriculum used in these classes.
3. A copy of any articulation agreements with local colleges or private schools.

I need this information as soon as is convenient for you. I am still in the information-gathering phase of my thesis. As soon as I can assimilate this information, I can begin to write my thesis. A copy of the guidelines will be sent to you for your comments. You can send the information to me through my e-mail address oggie@linkline.com or Fax 909-734-6916.

Sincerely,

Michele E. Rash
California Animal Health Educators Association
ANIMAL & VETERINARY CAREERS
CORE CURRICULUM OUTLINE
Revised -4/21/88

100 I. SECTION 1 (10% of course length)
*all segments will include appropriate terminology

110 A. RULES & REGULATIONS  3 Hours
   111. CLASSROOM
   112. COURSE/PROGRAM
   113. INDUSTRY RULES
       a. HUMAN
       b. ANIMAL
   114. LAWS
   115. ETHICS
       a. CONFIDENTIALITY
   116. EMERGENCY PROCEDURES

120 B. SAFETY  4 Hours
   121. PERSONAL
       a. CLASSROOM
       b. INDUSTRY

130 C. CAREER OPPORTUNITIES  2 Hours
   131. TYPES
   132. PREREQUISITES

140 D. PERSONAL GROOMING  1 Hours
   141. CLASSROOM
   142. INDUSTRY

200 II. SECTION 2 (25% of course length)
*all segments will include appropriate terminology

210 A. HANDLING & RESTRAINT  10 Hours
   211. MEDICAL, PROCEDURES
   212. CHEMICAL RESTRAINT
   213. PHYSICAL RESTRAINT
   214. PSYCHOLOGICAL (MORAL) RESTRAINT
   215. MECHANICAL RESTRAINT
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<td>233. INTERPERSONAL RELATIONS</td>
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<td>a. CLIENTS</td>
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<td>240</td>
<td>D. OFFICE PROCEDURES</td>
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<td>241. RECORDS</td>
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<td>a. FILING AND RETRIEVAL</td>
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<td>E. JOB SEARCH</td>
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<td>254. JOB RETENTION</td>
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III. SECTION 3
(15% of course length)
*all segments will include appropriate terminology

310 A. TERMINOLOGY 5 Hours
311. PREFIX
312. SUFFIX
313. ABBREVIATION
314. ROOT WORDS

320 B. CLEANING & SANITATION 3 HOURS
321. DEFINITIONS
322. GUIDELINES
   a. CLASSROOM
   b. INDUSTRY
323. TYPES OF SANITATION
324. METHODS
325. PRODUCTS
326. EQUIPMENT

330 C. SPECIES & BREEDS 7 Hours
331. COMMON BREED IDENTIFICATION
   a. DOGS
   b. CATS
   c. BIRDS
   d. REPTILES
   e. LABORATORY ANIMALS
   f. DOMESTICATED FARM ANIMALS

332. COMMON GROOMING PROCEDURES
   a. DOGS
   b. CATS
   c. BIRDS
   d. REPTILES
   e. LABORATORY ANIMALS
   f. DOMESTICATED FARM ANIMALS
IV. SECTION 4 (50% of course length)
*all segments will include appropriate terminology

A. NUTRITION 5 Hours

11. ESSENTIAL NUTRIENTS
   a. VITAMINS
   b. MINERALS
   c. FLUIDS

12. UNDERSTANDING LABELS

13. SPECIAL FEEDING

B. ANATOMY & PHYSIOLOGY 13 Hours

21. BASIC GROSS ANATOMY & PHYSIOLOGY
   a. REPRODUCTIVE
      (1) GENETICS.
   b. DIGESTIVE
   c. URINARY
   d. SKELETAL
   e. CIRCULATORY
   f. ENDOCRINE
   g. MUSCULAR
   h. LYMPHATIC
   i. RESPIRATORY
   j. CENTRAL NERVOUS SYSTEM

C. COMMON DISEASES 6 Hours

31. PARASITES
   a. ENDOPARASITES
   b. ECTOPARASITES

32. VIRAL

33. BACTERIAL

34. FUNGAL

35. PROTOZOAN

36. ZOONOTIC
   a. PUBLIC HEALTH ASPECTS

37. DISEASE, PREVENTION & IMMUNOLOGY
   a. VACCINATIONS

D. NORMAL VALUES 2 Hours

41. TEMPERATURE, PULSE & RESPIRATION

42. GESTATION

43. BIRTH WEIGHT

44. LITTER SIZE
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<td>INVENTORY, STOCK, REORDER</td>
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I. COMMON SURGICAL PROCEDURES 6 Hours

491. ASEPTIC TECHNIQUE
   a. INSTRUMENT IDENTIFICATION
   b. SURGICAL PACK PREPARATION
   c. SURGICAL ROOM CONDUCT

492. FOXTAIL REMOVAL

493. OVARIHYSTEROECTOMY

494. CASTRATION

495. ABSCESSES

496. DENTISTRY

497. ANAL SAC PROCEDURES
Association of Veterinary Technician Educators
Development and clarification of roles of the Veterinary Health Care Team submitted by the AVTE Veterinary Assistant Task Force

Historical Aspects

The veterinary profession has struggled with proper utilization of staff from the beginning of private practice. The AVTE (AATE) was discussing these issues 30 years ago. Graduate veterinary technicians continue to leave the profession, often as a result of under utilization and lack of fair salaries.

It is Time to Lead, not follow

The AVTE, along with our allied associations have an opportunity to make a difference in the development of the veterinary team. The time has come to recognize that veterinary assistants are an integral part of the veterinary team.

General Policy

The AVTE recognizes the vital role of veterinary assistants on the veterinary health care team. The AVTE Veterinary Assistant Task Force has developed the following guidelines to assist institutions in developing programs to train veterinary assistants.

All veterinary assistant training programs must emphasize the role of the veterinary assistant on the veterinary health care team. Program staff are responsible for educating both students and their potential employers on proper delegation of tasks to the veterinary assistant.

Role of the Veterinary Assistant on the Veterinary Health Care Team

The AVMA policy on veterinary technology defines "veterinary assistant" as an individual whose training, knowledge, and skills are less than that required of the veterinary technician. Veterinary assistants provide support to veterinarians and veterinary technicians. The responsibilities of the veterinary assistant are under the direct supervision of the veterinarian or veterinary technician.
Nomenclature

Veterinary Technician specialists, Veterinary Technicians in supervisory positions - veterinary technicians who through advanced education, training, or experience have been given more responsibility in the practice. These individuals possess advanced certification from a specialty Organization recognized by NAVTA.

Credentialed Veterinary Technicians - persons who have successfully completed and earned a degree from an AVNIA-accredited veterinary technology program or individuals that have passed the certification requirements for their particular state. Veterinary Assistants - may have training through high school or college certificate programs, but most are likely trained on the job by the veterinarian or the veterinary technician.

Other nomenclature in use include:

Technician Assistants and Animal care attendant

Identifying Assistant Tasks

Veterinary technicians work more efficiently when they have an individual who can assist them with their responsibilities. Veterinary technicians direct and mentor veterinary assistants as valuable team members. These assistants may be more effective/efficient if they are provided minimal training in certain tasks.

Methods of Delivery

Courses to accomplish this training may be offered through high schools, informal short courses, certificate programs at community colleges including online delivery associated with the mentoring of licensed veterinarians and credentialed veterinary technicians.

The determining factor in assigning tasks to the assistant should be the impact of the task on a positive patient outcome. This is based upon training that is centered around EXCELLENT animal care and client care.

The following is a list of tasks which the assistant may be trained to perform. This list has been taken in part from the AVMA essential tasks that are required of a graduate veterinary technician. In addition, a listing of other
related material has been included which may be beneficial
to the assistant.

If the assistant is proficient in the completion of these
tasks, the entire veterinary health care team benefits
through increased productivity of the veterinary technician
and the veterinarian. The completion of all veterinary
assistant tasks requires some degree of supervision.

Essentials Requirements for Veterinary Assistant Programs

1. Minimum requirements include a close affiliation with an
AVMA accredited program in veterinary technology. This
affiliation should be focused on enhancing the articulation
ladder from the assistant level for those individuals that
choose to continue on with a career in veterinary
technology. A working relationship should be developed with
the national, state and local veterinary technician
association and individuals from these associations should
be appointed to the program's Advisory Committee.

2. The veterinary assistant program courses must be taught
by credentialed veterinary technicians and/or licensed
veterinarians.

3. The program should encompass a minimum of 150 contact
hours including a significant number of hours devoted to
hands-on training with live animals in the workplace or
classroom laboratory.

4. The curriculum should be task oriented and additional
basic tasks may be added to the skills list but must not
encroach on essential areas of study for veterinary
technicians.

Essential Skills for Veterinary Assistant Training

The following list has been developed by a combination and
collection of veterinary assistant programs from across the
country.
I. Office and Hospital Procedures

A. FrontDesk
1. Greet Clients
2. Demonstrate proper Appointment Scheduling and make appointments
3. Prepare appropriate certificates for signature
4. Admit and discharge patients
5. Perform basic filing and retrieving of medical records
6. Perform basic veterinary medical record keeping procedures
7. Demonstrate elementary computer skills
8. Utilize basic Medical terminology

B. Telephone
1. Answer and direct phone calls
2. Recognize and respond appropriately to veterinary medical emergencies, BY NOTIFYING THE APPROPRIATE HOSPITAL PERSONNEL

C. Maintain basic cleanliness and orderliness of a veterinary facility
1. Inventory supplies
2. Restock shelves
3. Maintain x-ray, surgery logs
4. Perform basic filing and retrieving of medical records, radiographs, lab reports, etc.

II. Communication and Client Relations

1. Develop effective client communication skills
2. Write business letters
3. Demonstrate Professional Ethics
4. Describe the roles and responsibilities of each member of the veterinary health team and the important part that each plays in the delivery of excellent care
III. Pharmacy and Pharmacology

A. Legal Issues
1. Recognize legal issues involving drugs in the workplace
2. Recognize general types and groups of drugs and demonstrate proper terminology
3. Differentiate prescription drugs from over-the-counter drugs and describe proper Prescription label requirements

B. Filling medications and inventory control
1. Label and package dispensed drugs correctly
2. Store, safely handle and dispose of biological and therapeutic agents, pesticides, and hazardous waste
3. Perform inventory control procedures including restocking supplies

C. Vaccinations
1. Reconstitute vaccines and know proper protocols
2. DESCRIBE appropriate routes and methods of drug and vaccine administration THAT THE VETERINARIAN OR VETERINARY TECHNICIAN MAY CHOOSE

IV. Examination Room Procedures

A. Restrain Patients
Small Animals
1. Place and remove small animals from cages
2. Place and restrain small animals on tables
3. Apply dog and cat safety muzzle
4. Apply Elizabethan collar
5. Apply restraint pole
6. Restrain Birds and Exotics
Large Animals
1. Halter, tie, and lead horses and cattle
2. Restrain cattle & horses
3. Apply twitch
4. Apply bovine tail restraint
5. Apply nose tongs/leads
6. Restrain sheep & swine
7. Load large animals
B. **Basic Procedures**
1. Determine and record Temperature, Pulse, Respiration, Weight of pets
2. Trim nails (dogs, cats, and birds)
3. Express anal sacs
4. Identify mites, lice, fleas, ticks externally

V. **Surgical Preparation and Assisting**

A. **Assist in performing surgical preparations**
1. Prepare surgical equipment/supplies
2. Sterilize instruments & supplies using appropriate methods
3. Identify COMMON instruments
4. Identify common suture materials, types, and sizes
5. Prepare gowns, masks, gloves & drapes
6. Prepare surgical sites using aseptic techniques
7. Operate and maintain autoclaves
8. Provide operating room sanitation ~ care
9. Position patients

B. **Facility and Equipment Cleanliness**
1. Maintain proper operating room conduct and asepsis
2. Perform post-surgical clean up
3. Fold surgical gowns and drapes

C. **Describe the functions**
1. Surgical equipment
2. Surgical room and prep area
3. Instruments
4. Proper disposal of hazardous - medical wastes

VI. **Large and Small Animal Nursing**

A. **Safety Concerns**
1. Demonstrate knowledge of basic normal and abnormal animal behavior
2. Implement patient & personnel safety measures
3. Identify potential Zoonotic diseases
4. Describe Isolation procedures
5. Describe Hazardous waste disposal
6. Describe Basic Sanitation

B. **Animal Care**
1. Provide routine record-keeping, and observation of hospitalized patients, I.E. NOTATIONS MADE WHEN CLEANING STRESS IMPORTANCE OF & FEEDING
2. Demonstrate a basic understanding of Common diseases and medical conditions
3. Monitor/restrain patients for fluid therapy and record observations
4. Hand piling (dog, cat)
5. Apply and remove bandages to HEALTHY ANIMALS SUPPORT BANDAGES (equine leg and tail wraps when applicable)
6. Perform therapeutic bathing, basic grooming, and dipping of small animals
7. Clean Ears
8. Prepare feed & prescription diets and be aware of any special dietary requirements
9. Clean & disinfect cages, kennels, & stalls
10. Provide care & maintenance of nursing equipment

VII. Laboratory Procedures

A. Technical Assistance in the laboratory
1. Collect voided urine samples
2. Perform basic urinalysis
   a. Determine physical properties
      1) Color
      2) Clarity
      3) Specific gravity
   b. Test chemical properties using dipstick & tablet test
3. ASSIST in the collection of blood samples for procedures
4. Perform basic hematological procedures
   a. Perform PCV
   b. Determine Total Solid's (refractometer)
5. Perform parasitologic procedures
   a. Collect samples
   b. Prepare solutions and SET UP fecal flotations
6. Assist in necropsy procedures
   a. Explain how to handle rabies suspects & samples safely
   b. Handle disposal of dead animals
7. Laboratory Record Keeping
   a. Insure all lab results are accurately recorded
   b. Stock lab supplies
   c. File lab reports
VIII. Radiology & Ultrasound Imaging

1. Implement and follow recommended safety measures 
2. Use a technique chart 
3. Take diagnostic radiographs 
   a. ASSIST in the positioning of large and small animal patients 
4. Process diagnostic radiographs 
   a. Use hand processing in darkroom 
   b. Maintain quality control 
   c. Label, file, and store film 
   d. Use automatic processing 
5. Properly care for equipment 
   a. Clean screens 

Prepared by the AVTE Veterinary Assistant Task Force for the American Veterinary Technician Educators meeting August 4-8,
Tri-Country Regional Occupational Program
Description:

The Farm Management program is designed to provide for a wide variety of interests and needs. Graduates will find an enormous demand for well-trained, production-oriented personnel. Crop production, livestock production, mechanized agriculture technology, and agricultural-business will be blended to provide the student with practical experience and classroom instruction which will develop the skills necessary to become a farm ranch hand or assistant manager.

Performance Objectives:

Upon completion of the Farm Management program, the student will be able to:

Employee/Employer Relations - Demonstrate an awareness of employer/employee relationships and the skill needed to implement and maintain satisfactory employment, such as:

A. How to seek out job openings.
B. How to interview and prepare job applications.
C. How to advance on the job.
D. How to work effectively.
E. Supervision and leadership skills.
F. How to use Career Center effectively.

Crop Production - Demonstrate working knowledge of the principles and practices of crop production, identify different types of crops and apply the following skills:

A. Tillage
B. Planting - broadcasting, drilling, row drilling
C. Cultivation - top dressing, furrowing, fertilization, spraying
D. Harvesting - swathing windrowing, taking, baling, storing, transporting
E. Develop and care for an orchard
Livestock Production - Demonstrate the skills required in the production of livestock.

A. Cattle production
   (1) purchasing; (2) management - doctoring, worming, handling, feeding, branding, marking, gathering, equipment; (3) marketing.

B. Sheep production
   (1) purchasing - breeds and uses, advantages and disadvantages of each; (2) management practices, worming; (3) marketing, wool grades, fleece quality; (4) lamb - uses, markets, quality grades, standards.

C. Swine production
   (1) purchasing breeds and uses; (2) management practices - tagging, farrowing, spraying, tools, and equipment; (3) marketing, grades, standards.

Farm Equipment Maintenance and Repair - Demonstrate the ability to maintain and repair common farm equipment.

A. Maintenance of common farm equipment.
B. Welding and metal working.

Land Leveling - Demonstrate the techniques used in agriculture for purposes of improving land production.

A. Surveying - use of levels, reading bench marks, grinding, elevation calculations.
B. Field engineering - shooting grades, stakes, cross marking, marking fields, setting elevation, operation and maintenance of equipment needed to level agricultural land.
C. Excavation - operation and maintenance of equipment needed to level agricultural land.
D. Irrigation - practice and principles in agriculture crops, pertinent site, siphon, (2) water sources - ditch, agency, wells, cistern.
Agriculture Business - Demonstrate a working knowledge of the following agriculture business principles:
   A. Prepare and analyze cost study sheets.
   B. Apply the basic principles of agriculture sales.
   C. Keep a set of books for a small business.
   D. Analyze actual farm business problems and apply the appropriate business and legal principles to arrive at a correct disposition of a case.
**FARM MANAGEMENT**

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<td>PREREQUISITES: High school junior/senior. Minimum of 10 units of agriculture courses previously taken.</td>
<td>GOALS: Certificate, high school diploma, occupational preparation, advanced training</td>
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<tr>
<td>UNIQUE COSTS: Coveralls, hard hat, work boots</td>
<td>WORK EXPERIENCE: Desirable</td>
</tr>
<tr>
<td>CREDITS: Variable based on 360 hours per year. Maximum of 10 per semester</td>
<td>METHODS: Lecture, laboratory demonstration, practice, two field trips (25 hours)</td>
</tr>
</tbody>
</table>

**SPECIFIC OCCUPATIONS TRAINED FOR:**
- Farm Foreman (D.O.T. 429.131)
- General Farm Hand (D.O.T. 421.883)
- General Farmer (D.O.T. 421.181)
- Farm Caretaker (D.O.T. 421.884)
- Farm Caretaker (D.O.T. 421.884)
- General Farm Manager (D.O.T. 180.168)
- Farm Manager (D.O.T. 409.168)
- Livestock (D.O.T. 413.884)
- Crop Management (D.O.T. 180.168)
- Area Foreman (D.O.T. 401.138)
- Field Supervisor (D.O.T. 180.168)
- Production Foreman (D.O.T. 180.168)
- Animal Breeder (D.O.T. 419.181)
- Farm Equipment Operator (D.O.T. 424.883)
- Mechanic (D.O.T. 624.381)

**KEY CONTACT(S):**
- Sutter County Superintendent of Schools Office
- Tri-County Regional Occupational Program
  463 Second Street
  Yuba City, CA 95991
  (916) 741-5110

- Lindhurst High School
  4446 Olive Drive
  Olivehurst, CA 95961
  (916) 741-6150

- Marysville High School
  12 East 18th Street
  Marysville, CA 95901
  (916) 741-6180
Capistrano-Laguna Beach Regional Occupational Program
Course of Study: ANIMAL CARE OCCUPATIONS

Date: 1995-96

COURSE DESCRIPTION:

This course is designed to provide the vocational student with the skills and experiences necessary for entry level employment in a variety of animal care occupations. This course combines a variety of learning experiences to include classroom instruction community internship assignments. Students have the opportunity to experience firsthand animal care situations in veterinary hospitals, pet shops, animal shelters, grooming facilities, stables, kennels, etc.

LENGTH OF COURSE: 225 hours - 1 semester (75 hours classroom instruction/ 75 hours internship) Exception--150 hours of internship for veterinary hospital attendant. Students under 18 may take the course for 90 classroom hours for 5 credits only.

PREREQUISITE FOR ENROLLMENT: Must be 18 years old to serve internship.

RECOMMENDATIONS FOR ENROLLMENT: Consistent attendance is an important in attaining success and full credit in this class.

PROGRAM SEQUENCE: [related courses at high school, adult school, and community college]:

<table>
<thead>
<tr>
<th>HIGH SCHOOL</th>
<th>ROP</th>
<th>COMMUNITY COLLEGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>Word Processing</td>
<td>Laboratory Assisting</td>
</tr>
<tr>
<td>Anatomy/Physiology</td>
<td></td>
<td>Surgical Technician</td>
</tr>
<tr>
<td>Animal Husbandry</td>
<td></td>
<td>Animal Health Tech</td>
</tr>
<tr>
<td>Accounting</td>
<td></td>
<td>General Zoology</td>
</tr>
</tbody>
</table>
Capistrano-Laguna Beach
Regional Occupational Program

COURSE OUTLINE

Course Identification: Animal Care Occupations
Hours of Instruction: 90-225
Course Description:

1.0 COURSE ORIENTATION
2.0 ANIMAL PROTECTION
3.0 CAREERS IN ANIMAL CARE
4.0 ANIMAL HANDLING
5.0 ANIMAL CARUFIRST AID
6.0 STABLES — HORSES
7.0 PET SHOPS
8.0 GROOMING
9.0 COMMUNICATIONS
10.0 LEGAL ASPECTS, ETHICS, AND CLIENT RELATIONS
11.0 ANATOMY AND MEDICAL TERMINOLOGY
12.0 VETERINARY HOSPITAL ATTENDANT
   12.1 Office Procedures
   12.2 Medical Nursing
   12.3 Assisting Veterinarian
       12.3.1 Treatment Room
   12.4 Surgery
   12.5 Laboratory Procedures
   12.6 Medications
   12.7 Asepsis
13.0 JOB SEEKING SKILLS
14.0 SAFETY
COMMUNITY CLASS·ROOM EXPERIENCE

AREAS OF SPECIALIZATION:

Stableperson
- Animal Nutrition
- Use of Maintenance of Equipment
- Animal Grooming
- Disease Control
- Proper Medication
- Medical Records
- Exercise Program
- Insect Control
- Sanitation
- Customer Relations
- Facility Safety Rules

Dog Grooming Assistant
- Facility Sanitation
- Nutritional Needs
- Office Procedures
- Bathing and Drying Procedures
- Clipping Styles
- Customer Relations
- Skin Care
- Facility Safety Rules

Animal Shelter Attendant
- Facility Business Procedures
- Public Relations Activities
- Transportation of Animals
- Exercise, Feeding, and Bathing
- Medical Care
- Animal Betterment Activities
- Facility Safety Rules

Animal Control Officer
- Public Relations
- Animal Betterment Activities
- Medical Procedures
- Feeding
- Transportation
- Facility Maintenance
- Safety
- State, Municipal Laws

Pet Shop Attendant
- Facility Sanitation
- Grooming
- Nutrition
- Insect and Vermin Control
- Medication
- Customer Relations
- Shop Business Procedures
- Product Handling
- Sales
- Safety

Veterinary Hospital Attendant
- Facility Sanitation
- Bathing and Grooming
- Sterilization
- Animal Handling
- Medication
- First Aid Procedures
- Lab Procedures
- Pre-op Procedures
- Surgical Set-up Procedures
- Post-op Observation
- Telephone/Communications Business Procedures
- Medical Records
- Collections
- Banking
- Facility Safety
- Client Relations

Wildlife
- Public Relations
- Public Education/Safety
- Transportation if necessary
- Diseases Transmitted
- Agencies to Contact
- Identification
STUDENT COMPETENCIES:

The student will demonstrate an understanding of the various issues involved in the animal rights field to include protection and abuse questions.

The student will demonstrate a thorough knowledge of various animal care careers.

The student will demonstrate an understanding and the ability to utilize effective job seeking skills to include resume development, interviewing, and job retention traits.

The student will be able to describe and demonstrate accepted animal handling techniques.

The student will be able to discuss various aspects of small animal care.

The student will be able to describe and utilize various steps involved in first aid for animals.

The student will be able to discuss the important aspects of equine care.

The student will be able to describe the standards and guidelines for pet shop operation.

The student will be able to discuss grooming standards, purposes and procedures as they relate to animal care.

The student will be able to demonstrate acceptable and effective telephone and clerical skills as they relate to an animal care setting.

The student will be able to identify and understand the anatomy of various animals most often cared for in the animal care industry.

The student will demonstrate the ability to understand basic introductory medical terminology.

The student will identify standard veterinary office procedures.

The student will demonstrate the ability to provide standard nursing care in the animal care setting.
<table>
<thead>
<tr>
<th>Student Competencies</th>
<th>Length of Instructs</th>
<th>Instructional Methodology</th>
<th>Instructional materials, Resources</th>
<th>Methods of Eval/Students Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student will demonstrate an understanding of the various issues involved in the animal rights field to include protection and abuse questions</td>
<td>3 hrs.</td>
<td>Films, Games Lecture, Essay Gr, activity</td>
<td>Films, Handouts Worksheets Packets</td>
<td>Discussion Evaluation Work</td>
</tr>
<tr>
<td>The student will demonstrate a thorough knowledge of various animal care careers.</td>
<td>1 hrs.</td>
<td>Lecture Speaker/Variou s Careers</td>
<td>Handouts</td>
<td>Test</td>
</tr>
<tr>
<td>The student will demonstrate an understanding and the ability to utilize effective job seeking skills to include resume development, interviewing, and job retention traits</td>
<td>2 hrs.</td>
<td>Lecture Reading Role-playing Speaker</td>
<td>Booklets</td>
<td>Test, Student obsv.</td>
</tr>
<tr>
<td>The student will be able to describe and demonstrate accepted animal handling techniques.</td>
<td>4 hrs.</td>
<td>Lecture Demonstration Handouts</td>
<td>Handouts Film</td>
<td>Test Return Demo.</td>
</tr>
<tr>
<td>The student will be able to discuss various aspects of small animal care.</td>
<td>6 hrs.</td>
<td>Lecture Reading</td>
<td>Books Handouts Film</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to describe and utilize various steps involved in first aid for animals.</td>
<td>2 hrs.</td>
<td>Lecture Audio Demonstration</td>
<td>Film Handouts</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to discuss the Important aspects of equine care.</td>
<td>1 hrs.</td>
<td>Lecture Reading</td>
<td>Handouts</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to describe the standards and guidelines for pet shop operations.</td>
<td>1 hrs.</td>
<td>Lecture Speaker</td>
<td>Handouts</td>
<td>Discussion</td>
</tr>
<tr>
<td>Student Competencies</td>
<td>Length of Instructs</td>
<td>Instructional Methodology</td>
<td>Instructional materials, Resources</td>
<td>Methods of Eval/Students Performance</td>
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<tr>
<td>-------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>The student will be able to discuss grooming standards, purposes and procedures as they relate to animal care.</td>
<td>2 hrs.</td>
<td>Lecture, Speaker, Demonstration</td>
<td>Handout, Book</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to demonstrate acceptable and effective telephone and clerical skills as they relate to an animal care setting.</td>
<td>3 hrs.</td>
<td>Lecture, Practice, Role-play</td>
<td>Film, Tape, Book</td>
<td>Test, Student obsv.</td>
</tr>
<tr>
<td>The student will be able to identify and discuss current legal and ethical issues as they relate to animal care.</td>
<td>2 hrs.</td>
<td>Lecture, Discussion</td>
<td>Book</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to describe proper customer and client relations.</td>
<td>3 hrs.</td>
<td>Lecture, Reading, Role-play</td>
<td>Film, Tape, Book</td>
<td>Test, Student obsv.</td>
</tr>
<tr>
<td>The student will be able to identify and understand the anatomy of various animals most often cared for in the animal care industry.</td>
<td>5 hrs.</td>
<td>Lecture, Reading</td>
<td>Film, Tape, Chart, Handouts</td>
<td>Test Label</td>
</tr>
<tr>
<td>The student will demonstrate the ability to understand basic introductory medical terminology.</td>
<td>5 hrs.</td>
<td>Lecture, Reading, Audio Visual</td>
<td>Film, Flash cards</td>
<td>Quizzes</td>
</tr>
<tr>
<td>The student will identify standard veterinary office procedures.</td>
<td>3 hrs.</td>
<td>Lecture, Reading</td>
<td>Overheads, Chart forms</td>
<td>Test, Student obsv.</td>
</tr>
<tr>
<td>Student Competencies</td>
<td>Length of Instructs</td>
<td>Instructional Methodology</td>
<td>Instructional materials, Resources</td>
<td>Methods of Eval/Students Performance</td>
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<td>------------------------------------------------------------------</td>
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</tr>
<tr>
<td>The student will demonstrate the ability to provide standard nursing care in the animal care setting.</td>
<td>5 hrs.</td>
<td>Lecture Worksheet</td>
<td>Film Work sheets Handout</td>
<td>Test Completed work sheet</td>
</tr>
<tr>
<td>The student will demonstrate the skills and ability necessary to assist the veterinarian in the treatment setting.</td>
<td>3 hrs.</td>
<td>Lecture Discussion</td>
<td>Video Book</td>
<td>Test Student obsv.</td>
</tr>
<tr>
<td>The student will demonstrate the ability to perform medical and surgical asepsis.</td>
<td>5 hrs.</td>
<td>Lecture Reading Audio Visual</td>
<td>Prog. Study Handout Glo Germ practice</td>
<td>Test Student obsv.</td>
</tr>
<tr>
<td>The student will identify and discuss common surgical procedures in the animal care setting.</td>
<td>4 hrs.</td>
<td>Lecture Reading Audio Visual</td>
<td>Film Worksheet Video</td>
<td>Test Evaluation</td>
</tr>
<tr>
<td>The student will identify common surgical instruments and their proper preparation and use.</td>
<td>4 hrs.</td>
<td>Audio Visual Book Practice</td>
<td>Film, Film Guide, Practical exam, Catalog</td>
<td>Test Practical exam</td>
</tr>
<tr>
<td>The student will be able to prepare items for autoclaving.</td>
<td>1 hrs.</td>
<td>Lecture Reading Audio Visual</td>
<td>Film Book Practical exam</td>
<td>Test Return demo.</td>
</tr>
<tr>
<td>The student will be able to perform fecal flotation.</td>
<td>1 hrs.</td>
<td>Lecture</td>
<td>Procedure list</td>
<td>Test Return demo.</td>
</tr>
<tr>
<td>Student Competencies</td>
<td>Length of Instructs</td>
<td>Instructional Methodology</td>
<td>Instructional materials, Resources</td>
<td>Methods of Eval/Students Performance</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------</td>
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<td>----------------------------------</td>
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</tr>
<tr>
<td>The student will be able to describe the important steps in specimen collection and handling.</td>
<td>1 hrs.</td>
<td>Lecture Reading</td>
<td>Book</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to identify the important steps and safeguards in syringe preparation and usage.</td>
<td>1 hrs.</td>
<td>Demonstration Lecture Reading Practice</td>
<td>Book</td>
<td>Test Student Observ</td>
</tr>
<tr>
<td>The student will describe common aspects of medication administration.</td>
<td>2 hrs.</td>
<td>Lecture Audio Visual Practice</td>
<td>Book Film</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to identify and discuss common facility safety factors and standards.</td>
<td>2 hrs.</td>
<td>Lecture Reading Audio Visual</td>
<td>Video Handouts</td>
<td>Test</td>
</tr>
<tr>
<td>The student will be able to identify the various dog, cat, and wildlife breeds.</td>
<td>3 hrs.</td>
<td>Reading Student Handling Presentations</td>
<td>Book Booklets Charts Video</td>
<td>Quizzes Eval of presentations</td>
</tr>
<tr>
<td>Additional hours to be mat in internship site based upon individualized training plan.</td>
<td></td>
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</tbody>
</table>
Central Country Regional Occupational Program
CENTRAL COUNTY REGIONAL OCCUPATIONAL PROGRAM

COURSE OUTLINE

DISTRICT: ORANGE UNIFIED SCHOOL DISTRICT

COURSE TITLE: ANIMAL CARE SPECIALIST

CBEDS CODE: 4020

CBEDS TITLE: Agricultural Animal Production

LENGTH OF COURSE: 180/216

PREREQUISITES: NONE

CREDITS: Maximum 10 Science Credits

DOT INFORMATION JOB TITLES CODES

Dog Groomer 418.674
Kennel Attendant 410.674.010
Pet Shop Attendant 356.877
Stable Attendant 410.674.002
Veterinary Hospital Attendant 356.874
Zoo Keeper 412.674

COURSE DESCRIPTION: This course provides students with classroom instruction and Community Classroom Internship training for entry level skills in the animal care field. Course includes: opportunities in the animals care field, animal restraint, first aid, terminology, sanitation, nutrition, domestic breeds and general care. Internship training facilities include pet shops, Veterinary hospitals, horse stables, kennels, grooming shops, toes, and nature centers.

STUDENT OBJECTIVES: Upon successful completion of the course and based on industry standards, the student will be able to:

I. A-B. Explain and follow classroom and site rules and regulations and expectations.
C. Demonstrate emergency preparedness.
II. A. Demonstrate job acquisition skills to include; assessment, job search, applications, resumes and interviews.
   B. Demonstrate a knowledge of career profiles, paths, ladders and salaries.
   C. Understand professional level opportunities and requirements available through higher education.
   D. Understand labor market projections.

III. A. Explain history and trends of the Animal Care field.
   B. Show a knowledge of appropriate laws.
   C. Define the human and animal bond.
   D. Define and use correct prefix, suffix, abbreviations and root words.
   E. Explain the use of computer technology with animals.
   F. Explain entrepreneurial career opportunities.

IV. A. Explain and use appropriate professional appearance and comply with dress code.
   B. Demonstrate a positive attitude.
   C. Understand time and money management as it relates to business profit and loss and self-sustainment.
   D. Demonstrate ethical behavior, honesty, responsibility, and confidentiality.

V. A. Demonstrate team work and cooperation.
   B. Demonstrate the ability to work with clients and co-workers with understanding and appreciation for cultural sensitivity.
   C. Demonstrate appropriate initiative and leadership skills.
   D. Demonstrate conflict resolution and negotiation skills.
   E. Understand what sexual harassment is and related laws.
   F. Demonstrate appropriate professional courtesy, manners, and etiquette.
VI. A. Demonstrate creative thinking techniques.
B. Identify problems, evaluate and develop solutions.
C. Show an ability to work with data, i.e.; identify, locate, gather, organize, process, interpret and explain its use.
D. Demonstrate medical mathematical calculations.
E. Demonstrate the ability to read and understand manuals, policies and other pertinent information.

VII. A. Demonstrate public speaking ability.
B. Demonstrate active listening skills.
C. Demonstrate the ability to follow and give directions.
D. Exhibit writing skills using correct grammar and punctuation.
E. Demonstrate proper telephone techniques.
F. Understand non-verbal communication signs.

VIII. A. Demonstrate procedures in handling animals to insure safety, avoid accidents, use protective garments and lifting and transporting.
B. Demonstrate correct equipment use.
C. Explain and understand basic law relating to OSHA.
D. Explain and follow appropriate sanitation, hygiene and universal precautions.
E. Demonstrate health fitness, stress reduction and repetitive motion skills.

IX. A-E Recognize distinguishing characteristics of animal breeds and species.

X. A. Observe animal behavior and react appropriately.
B. Demonstrate handling and transportation of animals.
C. Demonstrate holding techniques for handling and restraining.
D. Demonstrate appropriate grooming techniques.

XI. A. Understand basic gross anatomy and physiology.
B. Identify essential nutrients and understand product labels.
XII. A Demonstrate the ability to understand the effects of sanitation and nutrition on animal health.
B. Recognize the common signs, symptoms, and causes of animal diseases.
C. Explain prevention and treatment of animals diseases.

XIII. A/1 Demonstrate, observe and assist vet in surgery.
A/2 Demonstrate sterilization of surgical instruments and preparing packs.
A/3 Demonstrate preparation for surgery.
B/1 Demonstrate knowledge of a wide variety of products.
B/2 Demonstrate ability to take inventory, stock shelves and price items.
B/3 Demonstrate an ability to sell store items that meet the needs of the client.
B/4 Demonstrate an ability to care for a wide variety of different animals.
C/1 Demonstrate the ability to bathe animals.
C/2 Knowledge the different types of shampoos and their uses.
C/3 Demonstrate the different methods of drying.
C/4 Explain the different types of skin problems and solutions for their care.
C/5 Observe the interaction between pets and their owners.
C/6 Demonstrate ability to express anal glands and trim nails.
D/1 Demonstrate maintenance procedures.
D/2 Demonstrate sanitation procedures in cleaning dishes and cages.
D/3 Demonstrate the ability to prepare and serve food dishes with medication.
E/1 Demonstrate equipment maintenance.
E/2 Demonstrate the ability to perform a visual inspection.
E/3 Demonstrate the ability to tack and untack.
E/4 Demonstrate and explain lunging and why it is used.
STUDENT ACHIEVEMENT LEVEL REQUIRED:

1. Eighty percent of the students will complete all student objectives.
2. Ten percent of the students will exceed the student objectives.
3. Eighty percent of the students will obtain a grade of "C" or better in community classroom individualized training plans.

METHODS USED FOR EVALUATING STUDENT PROGRESS:

1. Instructor evaluation of all test scores.
2. Student progress will continuously be monitored by observation to assure that each student is progressing at an acceptable rate.

Progress will be monitored on each student in the following areas:

1. Test scores
2. Classroom assignments
3. Individualized Training Plan

COURSE TITLE: ANIMAL CARE SPECIALIST

<table>
<thead>
<tr>
<th>Major units of instruction</th>
<th>Classroom</th>
<th>CC</th>
<th>CVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. ORIENTATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Class expectations</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>B. Rules and Regulations</td>
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<tr>
<td>C. Emergency preparedness</td>
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<tr>
<td>II. CAREER FOCUS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A. Job Preparation</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>B. Career Profiles</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>C. Education</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D. Labor Market</td>
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<td></td>
</tr>
</tbody>
</table>
III. INDUSTRY FOCUS
A. History & Trends
B. Laws
C. Human/Animal Bond
D. Terminology
E. Technology
F. Entrepreneurship

IV. PERSONAL SKILLS
A. Appearance
B. Positive Attitude
C. Time & Money Management
D. Ethical Behavior

V. INTERPERSONAL SKILLS
A. Group Dynamics
B. Cultural Sensitivity
C. Leadership Roles
D. Conflict Resolution
E. Sexual Harassment
F. Client/Customer

VI. THINKING & PROBLEM SOLVING SKILLS
A. Creative Thinking
B. Problem Solving
C. Information Data
D. Mathematical Reasoning
E. Reading

VII. COMMUNICATION SKILLS
A. Public Speaking
B. Listening
C. Directions
D. Writing
E. Telephone
F. Non-Verbal

VIII. WORK ENVIRONMENT SKILLS
A. Safety
B. Equipment Use
C. OSHA
D. Universal Precautions
E. Health & Fitness
<table>
<thead>
<tr>
<th>IX. BREED AND SPECIES</th>
<th>20</th>
<th>4</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Dogs</td>
<td></td>
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<tr>
<td>B. Cats</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>C. Birds</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D. Horses</td>
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<td></td>
<td></td>
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<tr>
<td>E. Other</td>
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</table>

<table>
<thead>
<tr>
<th>X. ANIMAL HANDLING</th>
<th>20</th>
<th>10</th>
<th>15</th>
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</thead>
<tbody>
<tr>
<td>A. Behavior</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>B. Transportation</td>
<td></td>
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<tr>
<td>C. Restraint Techniques</td>
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<tr>
<td>D. Grooming</td>
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<table>
<thead>
<tr>
<th>XI. ANATOMY &amp; PHYSIOLOGY</th>
<th>13</th>
<th>4</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>A. Principals</td>
<td></td>
<td></td>
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<tr>
<td>B. Nutrition</td>
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<thead>
<tr>
<th>XII. ANIMAL HEALTH</th>
<th>15</th>
<th>6</th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td>A. Sanitation</td>
<td></td>
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<tr>
<td>B. Diseases</td>
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<td></td>
</tr>
<tr>
<td>C. Immunology</td>
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</tbody>
</table>
COURSE TITLE: ANIMAL CARE SPECIALIST I

SPECIALIZED TRAINING - Students choose one of the five specialized areas for CC/CVE training.

<table>
<thead>
<tr>
<th>Major units of instruction</th>
<th>Hours of instruction</th>
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</thead>
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Total Hours 108 72 108

Classroom and Community Classroom =18U
Classroom and Cooperative Vocational Education =210
### HISTORY

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### ORANGE UNIFIED SCHOOL DISTRICT

District Number _700_
CENTRAL COUNTY REGIONAL OCCUPATIONAL PROGRAM
COURSE OUTLINE

DISTRICT: ORANGE UNIFIED SCHOOL DISTRICT
COURSE TITLE: ANIMAL CARE SPECIALIST II
CBEDS CODE: 4020
CBEDS TITLE: Agricultural Animal Production
LENGTH OF COURSE: 180/360
PREREQUISITES: ANIMAL CARE SPECIALIST I
CREDITS: Maximum 10 Science Credits

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<th>JOB TITLES</th>
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COURSE DESCRIPTION This course is designed for those who would like to enter the animal field. Students will concentrate on higher level thinking skills, explore the basic concepts of ecology and conservation, animal health and safety, animal behavior, public speaking, and how to construct a portfolio. Students will be required to train an animal as a final project.

STUDENT OBJECTIVES: Upon successful completion of the course according to industry standards, the student will be able to:

I. A-B Explain and follow classroom and site rules and regulations and expectations.
   C. Demonstrate emergency preparedness.
II. A. Demonstrate job acquisition skills to include: assessment, job search, applications, resumes and interviews.

B. Demonstrate the creation of a Animal Care Portfolio and explain it purpose.

III A. Explain and use appropriate professional appearance and comply with dress code.

B. Demonstrate a positive attitude.

C. Demonstrate ethical behavior, honesty, responsibility, and confidentiality.

D. Demonstrate the ability to work with clients and co-workers with understanding and appreciation for cultural sensitivity.

E. Demonstrate appropriate initiative and leadership skills.

F. Write and present a speech to the class, explain the critique methods of a speech.

IV. A-E Review specialized training learned in animal care or experience in the industry.

V. A. Classify vertebrate animals

B. Apply the basic concepts of ecology and conservation

VI. A. Define the problems of keeping animals in captivity

B. Demonstrate an understanding of zoonoses and how they are transmitted to humans.

C. Demonstrate proper care, husbandry and transportation of classroom exotic animals

VII. A. Demonstrate knowledge of the learning theory

B-D Apply concepts of ethnology and behavior modification to the maintenance and training of animals in captivity and the completion of a project.
VIII. A-D Understand Veterinary hospital equipment, procedures for lab testing, preparation of anesthesiology for animals and prepare animal for surgery.

E. Demonstrate the ability to plan, set a timetable, demonstrate a methodology for training an animal.

STUDENT ACHIEVEMENT LEVEL REQUIRED:

1. Eighty percent of the students will complete all student objectives.
2. Ten percent of the student will exceed the student objectives.
3. Eighty percent of the students will obtain a grade of "C" or better in Community classroom individualized training plans.

METHODS USED FOR EVALUATING STUDENT PROGRESS:

1. Instructor evaluation of all test scores.
2. Student progress will continuously be monitored by observation to assure that each student is progressing at an acceptable rate.

Progress will be monitored on each student in the following areas:

1. Test scores
2. Classroom assignments
3. Individualized Training
COURSE TITLE: ANIMAL CARE SPECIALIST I

SPECIALIZED TRAINING - Students choose one of the five specialized areas for CC/CVE training.

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<th>Major units of instruction</th>
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<td>A. Class expectations</td>
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<td>B. Rules &amp; regulations</td>
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<td>B. Positive Attitude</td>
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<td>C. Ethical Behavior</td>
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<td>D. Group Dynamics</td>
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<td>C. Grooming and Kennels</td>
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<td>D. Zoo and Nature</td>
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<td>E. Horse Stables</td>
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<td>V. DIVERSITY</td>
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<td>B. Ecology and Conservation</td>
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<td>VI. HEALTH &amp; SAFETY</td>
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<tr>
<td>A. Animals in Captivity</td>
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<td>B. Zoonoctic Diseases</td>
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<tr>
<td>C. Care &amp; Husbandry of Exotics</td>
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VII. ANIMAL BEHAVIOR 8 38 54
   A. Learning theory
   B. Ethology
   C. Modification
   D. Training

ADVANCED ASSISTING 8 24 33
   A. X-ray equipment
   B. Lab testing procedures
   C. Anesthesiology for animals
   D. Surgery

TOTAL HOURS 46 134 189

CLASSROOM AND COMMUNITY CLASSROOM = 180
CLASSROOM AND COOPERATIVE VOCATIONAL EDUCATION = 235
49er REGIONAL OCCUPATIONAL PROGRAM
## ANIMAL & VETERINARY CAREERS

### COURSE OUTLINE

(CBEDS #4020)

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<th>Hrs. Model Curriculum Standard</th>
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<td>4 CC110; CC120</td>
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<td>A1,2,4,5; B1-4,5,6; C1-7; D1,3; E1-4,6,7,8; F3; G1; I1,3-5; K1-3,5,6,7,9-14</td>
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<td>14   Microbiology</td>
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<td>17 <strong>Laboratory Procedures</strong></td>
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<td>17.1 Diagnostic Equipment</td>
<td>A1-5; B4,5,6; C1,2,5-7; D1,3; E1,2,4; F1,3; I1,4,5; J1-11</td>
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<tr>
<td>17.2 Aseptic Techniques</td>
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<td>17.3 Heartworm Test</td>
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<td>17.4 Fecal Test</td>
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<td>17.5 FELV Test</td>
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<td>17.6 Parvo Test</td>
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<td>17.7 CBC Test</td>
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<td>17.8 Histology</td>
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<td>17.9 Preparation of Smears</td>
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<td>17.10 Blood Chemistry Test</td>
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<td>17.11 Urinalysis</td>
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<td>17.12 Other Tests</td>
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<td>17.13 Normal Values</td>
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<tr>
<td>18 <strong>Pharmacology</strong></td>
<td>6 CC460</td>
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<tr>
<td>18.1 Handling &amp; Safety Procedures</td>
<td>A1-5; B1-6; C1,2,5-7; D1,3; F1,3; I1,4,5; J1-11</td>
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<tr>
<td>18.2 Drug Classifications</td>
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<td>18.3 Prescription Filling</td>
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<tr>
<td>18.4 Routes of Administration</td>
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<td>18.5 Equipment Used for Administration</td>
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<td>18.6 Inventory Control</td>
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<tr>
<td>18.7 Drug Dosage Calculations/Conversions</td>
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<tr>
<td>Chapter</td>
<td>Section</td>
<td>Hrs. Model Curriculum Standard #</td>
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<tr>
<td>19</td>
<td>Radiology</td>
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<td>Radiograph Developing</td>
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<td>Record Keeping</td>
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<td>20</td>
<td>Emergency Procedures</td>
<td>9 CC470</td>
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<tr>
<td></td>
<td>Determination of an Emergency</td>
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<td>Emergency Drugs, Instruments &amp; Equipment</td>
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<td>CPR</td>
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<td>21</td>
<td>Nutrition</td>
<td>3 CC410</td>
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<td></td>
<td>Basic Nutrition</td>
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<td></td>
<td>Nutritional Requirements of Species</td>
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<td></td>
<td>Feeding Practices &amp; Precautions</td>
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<td>22</td>
<td>Grooming</td>
<td>3 CC210</td>
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<tr>
<td></td>
<td>Dog Grooming</td>
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<td></td>
<td>Cat Grooming</td>
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<td>Equine Grooming</td>
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<td></td>
<td>Other Species</td>
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<td></td>
<td>Nail Trims &amp; Anal Gland Procedures</td>
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<tr>
<td>23</td>
<td>Humane Education</td>
<td>3 CC230</td>
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<td></td>
<td>Human/Animal Bond</td>
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<td></td>
<td>Euthanasia Practices</td>
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<tr>
<td></td>
<td>Public Education</td>
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</table>
ANIMAL CARE TECHNICIAN 11-12 AGRICULTURE 40
Course Title Grade Level Department Max. Credit
>Title must correlate with Course Code Catalog

Does this course satisfy a graduation requirement in another subject area? Yes No Life Science (10 units)

JERRY PONCETTA REGIONAL OCCUPATIONAL CENTER 7/99
Prepared by School Date

Approval of Site Administrator: ____________________________
(New methodology - CC/CVE) Signature

CBED TITLE: Agriculture: Animal Care CBED CODE: 4098
LENGTH OF COURSE: 540 Hours

JOB TITLES: DOT NUMBERS:
Animal Caretaker 410.674-010
Pet Groomer 418.674-010
Petshop Attendant 410.674-010
Veterinarian Assistant 410.674-010

1. Course Description (Include a brief explanation of the course; mention any prerequisites, including standardized test scores; and indicate whether the course satisfies a specific graduation requirement. Approximate length: two or three sentences.)

This course in animal care studies is designed to assist students in meeting entry-level employment requirements in animal health and care occupations, or to continue on in post-secondary education in the animal care field. Content includes: job-search skills, comparative anatomy and physiology, basic pet grooming skills, animal restraint, nutrition and housing, medical terminology, species and breed identification, and disease control/management. The course includes 27 weeks classroom and laboratory instruction and nine-weeks placement in community classroom. This course also includes specific sections of general life science. These sections are incorporated into the animal care technology curriculum and include the following subject areas: 80 hours-basic anatomy and physiology of common mammal species (skeletal, muscular, circulatory,
respiratory, nervous, urinary, endocrine), 30-hours-basic animal nutrition (feed nutrients, digestive anatomy/physiology), 30 hours-basic mammalian reproductive processes (estrus, breeding, gestation, parturition), 45 hours-fundamentals of animal disease/parasite control and management (causes, immunity, vaccination, infectious and non-infectious diseases, sanitation and prevention, normal values, pharmacology)

**Prerequisites**: Interest in animal care and pass the KHSD reading proficiency.

**Requirement for community classroom placement:**
Students will be required to maintain a minimum grade of C- or higher in the third quarter of the Animal Care Tech class to be assigned to a community classroom site during the fourth quarter of the spring semester. Students not meeting this grade requirement will be assigned alternative study materials to complete during the fourth quarter community classroom activity. They will receive a grade for the quarter and semester as well as units of credit but will not receive a certificate of completion for the class.

2. **Instructional Materials** *(List the basic text - include title, author, copyright - and other essential supplementary materials or instructional resources/materials used in the course.)*

Small Animal Care and Management, Dean M. Warren, Delmar Publishers, 1995
Other materials:
1) District farm livestock and equipment.
2) Community classrooms.
3) Small animal laboratory animals and equipment.
4) Videos covering specialized areas of animal care.

3. **Course Outline** (List the major content areas of the course and divide them according to the semester in which they fall. Designate the approximate amount of time given to each of the content areas. Suggested length: one page.)

### Fall Semester
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Classroom Hours</th>
<th>Community Classroom Hours</th>
<th>CVE Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Careers in Animal Care</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>II Animal Care Safety</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>III Animal Handling &amp; Restraint</td>
<td>30</td>
<td>30</td>
<td></td>
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<tr>
<td>IV Animal Behavior &amp; Observation</td>
<td>11</td>
<td>11</td>
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<tr>
<td>V Animal Care Terminology</td>
<td>15</td>
<td>15</td>
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<tr>
<td>VI Animal Breed Identification</td>
<td>15</td>
<td>15</td>
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<tr>
<td>VII Introduction to Small Animals</td>
<td>10</td>
<td>10</td>
<td></td>
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<tr>
<td>VIII Basic Animal Nutrition</td>
<td>30</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>IX Animal Anatomy/Physiology</td>
<td>80</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>X Intro to Basic Pet Grooming</td>
<td>15</td>
<td>15</td>
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</tbody>
</table>

### Spring Semester
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Classroom Hours</th>
<th>Community Classroom Hours</th>
<th>CVE Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Animal Diseases &amp; Control</td>
<td>30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>XI Normal Values</td>
<td>15</td>
<td>3</td>
<td>3</td>
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<tr>
<td>XII Pharmacology</td>
<td>15</td>
<td>5</td>
<td>5</td>
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<tr>
<td>XIII Emergency Procedures</td>
<td>6</td>
<td>5</td>
<td>5</td>
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<tr>
<td>XIV Common Surgical Procedures</td>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>XV Internal &amp; External Parasites</td>
<td>15</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>XVI Job Search</td>
<td>30</td>
<td>6</td>
<td>6</td>
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<tr>
<td>XVII Personal Grooming</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>XVIII Reproductive Processes</td>
<td>30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>XIX Basic Pet Grooming</td>
<td>30</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>478</td>
<td>62</td>
<td>62</td>
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</tbody>
</table>
4. **COURSE OBJECTIVES** (The objectives are to include the specific, major skills or understandings which students will be able to demonstrate or acquire following instruction in the course. A minimum of eight to twelve objectives should be identified for each semester of the course. Each objective is to be clearly linked to the Board adopted standards for the course or subject area; indicate the link by placing the number of the appropriate standard(s) after each objective. Minimum length: one page.)

1. The student will know, practice, and pass a safety test dealing with livestock and equipment relating to livestock. (District Ag MSC - 3, 5, 7)

2. The student will demonstrate the Knowledge of comparative anatomy of domesticated animals. (District Ag MSC - 3, 8, 10, 11)

3. The student will demonstrate the knowledge of comparative physiology of domesticated animals. (District Ag MSC - 3, 8, 10, 11)

4. The student will demonstrate the ability to use proper animal restraints, both passive and active. (District Ag MSC - 3, 5, 10)

5. The student will demonstrate the ability to use equipment to perform temperature, pulse, and respiration. (District Ag MSC - 3, 4, 5, 10, 11)

6. The student will develop an understanding of various methods of physical examinations. (District Ag MSC - 3, 4, 5, 10, 11)

7. The student will demonstrate the ability to keep proper physical examination records. District Ag MCS 3, 4, 5, 10, 11)

8. The student will demonstrate knowledge of disease-causing agents and vectors. (District Ag MSC -2, 3, 4, 8, 10, ii)

9. The student will demonstrate the ability to identify major livestock diseases based upon symptomatology. District Ag MSC -2, 3, 4, 8, 10, 11)
10. The student will demonstrate the ability to perform proper treatment procedures. (District Ag MSC - 2, 3, 4, 8, 10, 11)

11. The student will demonstrate an understanding of disease prevention. (District Ag MSC - 2, 3, 4, 8, 10, 11)

12. The student will demonstrate the ability to perform proper sanitation procedures. (District Ag MSC - 2, 3, 4, 8, 10, 11, 12)

13. The student will demonstrate the ability to properly collect fecal specimens. (District Ag MCS - 3, 4, 8, 10, 11)

14. The student will demonstrate the ability to properly use microscope to examine fecal specimens. (District Ag MCS - 3, 4, 8, 10, 11)

15. The student will demonstrate the ability to identify drugs according to classification and use, (District Ag MCS - 3, 4, 5, 8, 10)

16. The student will demonstrate the ability to interpret label instructions and measure dosage of drugs. (District Ag MCS - 3, 4, 5, 8, 10)

17. The student will demonstrate the ability to properly administer drugs via the following methods: oral, topical, and injection. (District Ag MCS - 3, 4, 5, 8, 10)

18. The student will understand the current sociological implications of veterinary drug usage. (District Ag MCS - 8, 10, 11, 12)

19. The student will demonstrate the ability to recognize medical emergencies. (District Ag MCS - 3, 4, 8, 10)

20. The student will demonstrate the ability to perform proper first-aid procedures. (District Ag MCS - 3, 4, 8, 10)

21. The student will demonstrate the ability to properly feed livestock. (District Ag MCS - 3, 4, 8, 10, 11)
22. The student will demonstrate the ability to determine if an animal is receiving the proper diet. (District Ag MCS - 3, 4, 8, 10, 11)

23. The student will demonstrate the ability to identify various feeds and feed stuffs. (District Ag MCS - 3, 4, 8, 10, 11)

24. The student will demonstrate the ability to properly bathe an animal and employ basic grooming techniques. (District Ag MCS - 3, 4, 5, 6)

25. The student will demonstrate the ability to properly care for the hair coat of an animal. (District Ag MCS - 3, 4, 5, 6)

26. The student will be able to define commonly used terminology in the animal care field and apply them to practical husbandry practices. (District Ag MCS - 3, 9)

27. The student will be able to recognize common breeds of large and small animals and their unique characteristics. (District Ag MCS - 3)

28. The student will develop an awareness of the various species of small animals considered as domesticated pets. (District Ag MCS - 5, 11)

29. The student will be able to identify the major external and internal parasites of large and small animals and the economic damage done by each type of parasite. (District Ag MCS - 11, 12)

30. The student will be aware of the importance of good personal grooming habits for successful career accomplishments. (District Ag MCS - 1, 9)

31. The student will be able to understand the basic reproductive processes of large and small species and the importance of reproductive efficiency for successful animal production. (District Ag MCS - 3, 11)

32. The student will develop an understanding of the skills, personal qualities, and educational requirements needed for employment in a variety of animal-related occupations. (District Ag MCS - 1)
33. The student will develop an awareness of occupational choices and will be encouraged to participate in student youth organizations related to the animal care field. (District Ag MCS - 1, 9)

34. The student will demonstrate the ability to properly complete a job application and understand the process of a job interview. (District Ag MCS - 1)

35. The student will demonstrate by regular class promptness and attendance, his/her ability to develop work habits conducive to obtaining and holding a position in the work world. (District Ag MCS - 1)

36. CAREER PREPARATIONS STANDARDS

The student will:

A. Understand how personal skills development (including positive attitude, honesty, self-confidence, time management, and other positive traits) affect employability.

1. Demonstrate an understanding of classroom policies and procedures.

2. Define business ethics and explain the importance of ethical standards and social responsibilities in the workplace.

3. Discuss importance of the following personal skills in the workplace.
   a) Positive attitude
   b) Self-confidence
   c) Integrity/Honesty
   d) Perseverance
   e) Self-discipline
   f) Sociability

4. Define personal hygiene and identify acceptable business attire.

5. Prioritize tasks and meet deadlines.

6. Discuss the importance of lifelong learning.
B. Understand principles of effective interpersonal skills, group dynamics, conflict resolution, and negotiation.
   1. Identify and discuss the key concepts of group dynamics.
   2. Discuss and demonstrate the dynamics of conflict resolution and negotiation.
   3. Work cooperatively, share responsibilities, accept supervision and assume leadership roles.
   4. Demonstrate cooperative working relationships and proper etiquette across gender and cultural groups.
   5. Discuss laws which apply to sexual harassment and discuss tactics for handling harassment situations.

C. Understand the importance of good academic skills, critical thinking and problem-solving skills in the workplace.
   1. Recognize the importance of good reading, writing and math skills and implement a plan for self-improvement as needed.
   2. Apply estimation, measurement and calculation skills to business applications, including the following:
      a) Whole number math
      b) Decimals and fractions
      c) Counting and monetary functions
      d) Use of tables
   3. Read, write, and give directions.
   4. Exhibit critical thinking, creative thinking and logical reasoning skills.
   5. Recognize problem situations; identify, locate and organize needed information or data; and propose, evaluate and select from alternative solutions.
D. Understand principles of effective communication.
   1. Read and implement written instructions, technical manuals, written communication and reference books.
   2. Present a positive image through verbal and nonverbal communication through use of appropriate methods.
   3. Demonstrate active listening through oral and written feedback.

E. Understand occupational safety issues, including avoidance of physical hazards.
   1. Discuss and implement good safety practices, including:
      a) Avoidance and reporting of physical hazards in the work environment
      b) Safe operation of equipment
      c) Proper handling of hazardous materials
      d) Apply sound ergonomic principles in organizing one's work space

F. Understand career paths and strategies for obtaining employment.
   1. Explore career opportunities and projected trends; investigate required education, training and experience; and develop an individual education plan.
   2. Identify steps for setting goals and writing personal goals and objectives.
   3. Examine aptitudes related to career options, and relate personal characteristics and interests to educational and occupational opportunities.
   4. Develop job acquisition documents including:
      a) Job application
      b) Resume
      c) Appropriate cover and follow-up correspondence
      d) Portfolio
   5. Identify and demonstrate effective interviewing techniques.

G. Understand and adapt to changing technology.
   1. Understand the importance of lifelong learning in adapting to changing technology.
5. **Student Evaluation Standards** (List the criteria on which students' will be grading in the course. Give the approximate weight for each of the grading criteria in determining the student's grade, such as test, homework, labs, class participation. Also indicate the weight given to quarter grades and semester finals in tabulating the final grade.)

- Written examinations: 20 percent
- Class assignments: 30 percent
- Laboratory exercise: 20 percent
- Homework: 10 percent
- Attendance and promptness: 20 percent
- First quarter: 50 percent
- Second quarter: 50 percent

6. Suggested Instructional Activities (This item is optional and is not required for the course of study. If it is completed, it should include teacher and/or student activities such as field trips, demonstrations, speakers, or special procedures that will assist the students in learning the course objective.)

**METHODOLOGY OPTIONS** - Final quarter of instruction is in the community classroom situation. The student will report to class in various community classrooms.

**METHODOLOGY OPTIONS**

A. Complete classroom portion and move directly to community classroom methodology.
B. Complete classroom portion and move directly to cooperative vocational education (C.V.E.) methodology.
C. Complete classroom portion and move directly to community classroom with later movement to C.V.E. methodology. The reverse could also take place—classroom to C.V.E., then to community classroom or back to the classroom. (Hours would not exceed those indicated in community classroom or C.V.E.)
Example

<table>
<thead>
<tr>
<th>Classroom</th>
<th>Community Classroom</th>
<th>C.V.E</th>
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<tbody>
<tr>
<td>Hours</td>
<td>Hours</td>
<td>Hours</td>
</tr>
<tr>
<td>50</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>50</td>
<td>5 move to C.V.E.</td>
<td>10 = 15 total</td>
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<tr>
<td>50</td>
<td>10</td>
<td>5 = 15 total</td>
</tr>
</tbody>
</table>

Any combination could take place depending on the opportunity presented at the time; however, using the example above, total hours would not exceed 15. The possibility also exists that the student may have to move from either community classroom or C.V.E. methodology back to the classroom for the remainder of the approved course. Remain in classroom portion for total approved hours of the course.

7. **Essential Employability Skills**

The instruction of general workplace and essential employability skills creates a common thread throughout the course.

The general workplace skills include: personal development, ethics, attendance, grooming, and self-management skills; lifelong learning and industry linked academic skills; communication, listening, speaking, writing, problem-solving, and team building skills; information and technology skills; resource identification and management skills; employment literacy, job search, and career development skills; safety, diversity, and public relations skills; technical reading and writing skills; and entrepreneurial skills.

The essential employability skills are defined as follows:

**Accountability for Actions:** Accepts assignments and responsibility for carrying out the assignments, including the results achieved.

**Appearance:** Dresses appropriately for the position and maintains personal hygiene.
Appropriate Behavior: Demonstrates accepted social and work behaviors, manners, and conversation skills. Helps others, both in the performance of the job, and in teaching others. Exercises the rights and responsibilities of citizenship.

Attitudes: Employers desire a good attitude which means: being courteous and cooperative, being willing to learn, having a pleasant personality, and being flexible regarding doing what it takes to get the job done.

Common Sense: Demonstrates the capacity of making sound and prudent decisions.

Continual Learning: Seeks out opportunities to gain new knowledge or to learn new skills. Uses self-regulated learning (teach themselves).

Cooperativeness: Works cooperatively with others and contributes to the group with ideas, effort and suggestions.

Conscientiousness: Acts with regard to what is considered right or proper for the circumstances.

Demeanor: Carries one's self with an air of confidence and purpose.

Dependability: Can be relied upon to show up for work and to work after showing up.

Effort: Demonstrates a capacity for doing work through exertion. The total work done to achieve a particular end in a timely manner.

Flexibility: Readily adapts to new, different, or changing job conditions.

Goal Setting Ability: Demonstrates internal motivation by striving for successful performance in the workplace without prompting. Possessing a pattern of preparation, mental attitude, and methodology that applies to work situations.
Integrity/Honesty: Given a choice, the individual will choose an ethical course of action. They can be trusted.

Judgment: Uses specific situations and dispositions to reach a conclusion and then acts in an appropriate manner.

Motivation: Possesses a desire to achieve goals and objectives without external prompts such as money, threats or coercion.

Punctuality: Shows up for work on time, all the time.

Respect: Recognizes position in the employment hierarchy. Works and communicates with co-workers, supervisors, and clients/customers in an appropriate manner.

Responsibility: Exerts a high level of effort and perseverance toward goal attainment.

Work Habits: Demonstrates a work ethic appropriate to the culture of the workplace with respect to attendance, punctuality, enthusiasm, neatness and perseverance.
REFERENCES


Cal/OSHA. Title 8 Section 5194, Hazard communication. [on-line] Available: http://www.dir.ca.gov/Title8/5194.html


King, E. (personal communication, April 2000) California Association of Regional Occupational Centers/Programs, Sacramento, CA.


