

# Veterinary Science

Preparatory Training for the Veterinary Assistant

Floron C. Faries, Jr., DVM, MS



**FAZD CENTER**

NATIONAL CENTER FOR FOREIGN ANIMAL  
AND ZOONOTIC DISEASE DEFENSE

[fazd.tamu.edu](http://fazd.tamu.edu)



# 4-H Veterinary Science Program

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# Profession of Veterinary Medicine

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- To learn and accomplish
- To understand advanced sciences
- To improve the quality of life of people and animals

# Careers in Veterinary Medicine

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- Positions of employment
  - Veterinary Assistant
    - Study course, work experience
      - **4-H Veterinary Science Program**
        - **Career-oriented curriculum**
        - **Job-trained apprenticeship**
  - Veterinary Technician
    - 2 yrs college
  - Veterinarian
    - 8 years college
      - 4 yrs pre-vet college
      - 4 yrs vet college

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- Fields of employment
    - Food animal health
    - Companion animal health
    - Exotic animal health
    - Laboratory animal health
    - Human health

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- Kinds of employment (types)
    - Private veterinary practice
    - Public veterinary practice
    - Industry veterinary practice

# Career Development

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- Evaluate interests and abilities
- Make commitment (focus, blinders)
  - Highly motivated and dedicated
- Work with veterinarians
  - Develop veterinary experience
- Work with animals
  - Develop animal experience

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- Plan HS curriculum with advanced sciences
    - Calculus
    - Physics
    - Chemistry
    - Zoology (genetics, nutrition, biology)
    - Microbiology
    - Animal science (Ag Sc)
  - Participate in extra-curricular leadership and citizenship activities



# 4-H Veterinary Science Program Curriculum Workshop

- Goals
- Objectives
- Curriculum



# Program Goals

1. Develop a personalized curriculum

2. Empower youth

3. Help youth to learn

4. Help youth to work

- Shadow – **Observation Hours**

- Volunteer

- Apprenticeship/Assignments – **Clinical Skills Hours**

- Volunteer

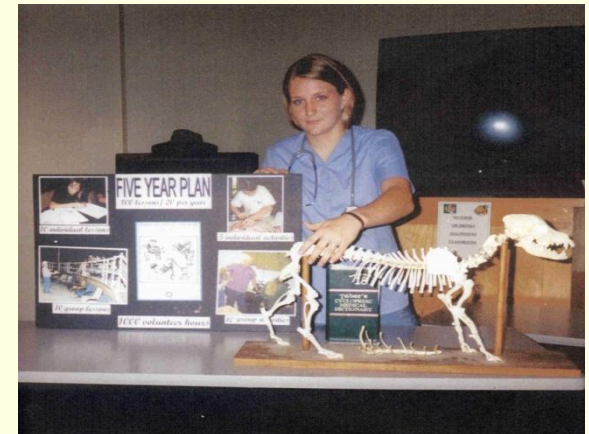
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# Program Objectives

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1. Utilize career-oriented resource material
2. Develop the interest, knowledge, skills, and experiences
3. Prepare youth to be job trained



# TAMU Instructional Materials Service

<http://www.im.tamu.edu>

## VETERINARY ASSISTANT HANDBOOK

FLORON C. FARIES, JR.



INSTRUCTIONAL MATERIALS SERVICE  
TEXAS A&M UNIVERSITY

FIRST EDITION



<http://store.im.tamu.edu/4041-Veterinary-Assistant-Handbook-P606.aspx>

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## **(4041) Veterinary Assistant Handbook (IMS)**

PRICE: \$40.00

Description:

- Author: Floron C. Faries Jr.
- Introduces students to veterinary science and animal industries. Students have the opportunity to develop technical skills in practice and patient management, health, nutrition, animal handling, examinations, diseases, sanitation, regulatory programs, and surgical procedures. Each chapter includes black and white illustrations and student activities. Also contains a comprehensive list of glossary terms. (360 pages)

<http://store.im.tamu.edu/4041TG-Teachers-Guide-for-Vet-Asst-P607.aspx>

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**(4041TG) Teacher's Guide for Veterinary Assistant Handbook (IMS)**

PRICE: \$10.00

Description:

- Author: Floron C. Faries Jr.
- Valuable lesson planning reference for teachers. Includes an outline of the 16 chapters and 100 sections covered in the Veterinary Assistant Handbook. Goals and objectives are identified for each section of the handbook. (44 pages)

<http://store.im.tamu.edu/4041TK-Teachers-Key-for-Vet-Asst-Handbook-P608.aspx>

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**(4041TK) Teacher's Key for Veterinary Assistant Handbook (IMS)**

PRICE: \$25.00

Description:

- Author: Floron C. Faries Jr.
- Valuable student response assessment tool for teachers. Includes answers to the student activities in the 16 chapters and 100 sections covered in the Veterinary Assistant Handbook. (98 pages)

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# Curriculum Plan

- 20 Lessons per year (100)
  - Group Lessons: Schedule 10
  - Individual Lessons: Assign 10
  
- 10 Activities per year (50)
  - Group Activities: Schedule 5
  - Individual Activities: Assign 5
  
- Lesson questions
- Activity reports



# Texas 4-H Veterinary Science Lesson Plan Model

Year 1	Lesson	Subject
	1	The Profession of Veterinary Medicine
	2	The Veterinary Assistant
	3	Animals and Society
	4	Office Procedures
	5	Client Communications
	6	<sup>1</sup> Employee Communications
	7	<sup>1</sup> Clinic Infectious Disease Control
	8	Storage of Foods
	9	Caring for Patients
	10	<sup>1</sup> Pain Recognition

11

Environmental Sanitation

12

Bedding and Housing of Patients

13

Anatomy and Physiology of Animals

14

Integrated Resource Management

15

<sup>1</sup>Record Keeping

16

Marketing Animals

17

Preparing Livestock for Shipment

18

Interstate and International Movement of  
Animals

19

Brucellosis and Tuberculosis Eradication  
Program

20

Rabies Control Program

Year 2	Lesson	Subject
	1	<sup>2</sup> Reading Animal Behavior
	2	<sup>2</sup> Vital Signs
	3	Genetics
	4	Determining the Age of Animals
	5	Breeds of Dogs and Cats
	6	Breeds of Livestock
	7	Essential Food Nutrients
	8	Small Animal Nutrition and Management
	9	Livestock Nutrition and Management
	10	Introduction of Handling and Restraining Animals

11	Common Knots
12	Handling and Restraining Dogs and Cats
13	Handling and Restraining Livestock
14	Handling and Restraining Rodents, Rabbits, and Exotic Animals
15	Dehorning, Castrating, and Docking
16	Collecting and Handling Semen
17	Artificial Insemination
18	Reproduction and Transrectal Palpation in Cattle
19	Weaning Calves
20	Assistance at Birth

Year 3	Lesson	Subject
	1	Physical Examinations
	2	First Aid
	3	Applying Bandages
	4	Handling and Administering Medications
	5	<sup>1</sup> Rehabilitation
	6	Bacteriologic Tests
	7	Fecal, Blood and Urine Examinations
	8	Special Examinations
	9	Radiology
	10	Post-mortem Examinations

11	Genetics and Disease
12	The Battle Against Disease
13	Food and Animal Diseases
14	Economic Losses
15	Anthrax Control Program
16	Pseudorabies Control Program
17	Pullorum-Typhoid, <sup>1</sup> Avian Influenza, and <sup>1</sup> Exotic Newcastle Disease Programs
18	<sup>1</sup> Bovine Trichomoniasis Control Program
19	<sup>1</sup> Equine Infectious Anemia Control Program
20	<sup>1</sup> Cattle Fever Tick Control Program



Year 4	Lesson	Subject
	1	Diseases Common to Humans and Animals
	2	Animal Assisted Therapy
	3	<sup>3</sup> Infectious Diseases: Causative Agents
	4	<sup>3</sup> Infectious Diseases: Respiratory and Digestive Systems
	5	<sup>3</sup> Infectious Diseases: Reproductive and Endocrine Systems
	6	<sup>3</sup> Infectious Diseases: Nervous and Integumentary Systems
	7	<sup>3</sup> Infectious Diseases: Cardiovascular and Lymphatic Systems
	8	<sup>3</sup> Infectious Diseases: Musculoskeletal System
	9	<sup>3</sup> Infectious Diseases: Special Senses
	10	Non-infectious Diseases: Nutritional Diseases

11	Non-infectious Diseases: Reproductive Diseases
12	Chemical Poisoning
13	Toxicity of Insecticides
14	Poisonous Plants
15	Miscellaneous Non-infectious Diseases
16	Producing Safe Food
17	Drug Residue Avoidance Program
18	<sup>1</sup> Carcass Disposal Regulations
19	Medical Waste Disposal
20	Animal Welfare Regulations

Year 5	Lesson	Subject
	1	Prevention
	2	Treatment
	3	Controlling Internal Parasites
	4	Controlling External Parasites
	5	Veterinary Biological Products
	6	Disinfectants
	7	Dietary Management of Small Animals
	8	Quarantines and Eradication Programs
	9	Sterilization
	10	Sterilizing Techniques

11 Surgical Instruments and Technology

12 Surgical Preparation and Procedures

13 Anesthesia

14 Preparing Hands and Field Operation

15 Sterile Gloves and Gowns

16 Pesticide Regulations

17 Laws Related to Veterinary Medicine

18 <sup>1</sup>Natural, Accidental, and Intentional  
Disasters

19 <sup>1</sup>Local and State Emergency Management  
Plans

20 <sup>1</sup>Clinic Emergency Management Plans

# Job-training with Veterinarians

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- 800-2400 work hrs expected
  - 9-10 yrs age (volunteer) – 80 hrs/yr
  - 11-12 yrs age (volunteer) – 160 hrs/yr
  - 13-15 yrs age (volunteer) – 360 hrs/yr
  - 16-18 yrs age (salaried/volunteer) – 560 hrs/yr



# Work Performance

## Regular 5-year Program or Accelerated Program

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- For excellence (100% of work hrs)
  - 9-13 yrs age: 800 hrs
  - 11-15 yrs age: 1400 hrs
  - 12-16 yrs age: 1800 hrs
  - 14-18 yrs age: 2400 hrs
  
- Juniors – 800 hrs
  
- Intermediates – 1600 hrs
  
- Seniors – 2400 hrs



# Work Performance

## Regular 5-year Program or Accelerated Program

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- For completion (>60% of work hrs)
  - 9-13 yrs age: >500 hrs (800 hrs x 60%)
  - 11-15 yrs age: >800 hrs (1400 hrs x 60%)
  - 12-16 yrs age: >1100 hrs (1800 hrs x 60%)
  - 14-18 yrs age: >1500 hrs (2400 hrs x 60%)
  
- Juniors – 500 hrs
  
- Intermediates – 1000 hrs
  
- Seniors – 1500 hrs



# Work Performance

## Regular 5-year Program or Accelerated Program

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- For participation (<60% of work hrs)
  - 9-13 yrs age: <500 hrs
  - 11-15 yrs age: <800 hrs
  - 12-16 yrs age: <1100 hrs
  - 14-18 yrs age: <1500 hrs
  
- Juniors – <500 hrs
  
- Intermediates – <1000 hrs
  
- Seniors – <1500 hrs





# Texas 4-H Veterinary Science Clinical Skills Model

Year 1	Skill	Subject
	1	Monitoring drug inventory
	2	Cleaning and exercising animals
	3	Feeding and watering animals
	4	Cleaning animal housing

Year 2	Skill	Subject
	1	Communicating with clients on admitting animals – taking reasons, history
	2	Recording medical records - History - Examination - Vital Signs
	3	Handling instruments
	4	Handling equipment

Year 3	Skill	Subject
	1	Handling animals - Calming, moving - Weighing - Restraining
	2	Examining animals - Temperaturing
	3	Monitoring behavior of animals
	4	Performing sanitary procedures

Year 4	Skill	Subject
	1	Collecting lab samples - Feces, blood, urine, skin
	2	Taking radiographs
	3	Medicating animals
	4	Bandaging animals

Year 5	Skill	Subject
	1	Preparing surgical packs
	2	Assisting in surgery
	3	Recording medical records - Treatment
	4	Communicating with clients on dismissing animals - Instructions, educational materials

# Certificate of Completion

- Successfully complete 5-year curriculum
  - Lessons (100%)
  - Activities (100%)
  - Lesson questions (>60%)
  - Activity reports (>60%)
  - Work hours (>60%): >500 – 1500 hrs
- Classification - Veterinary Assistant (VA)
  - Junior, Intermediate, Senior
- Recognition - Award for Excellence
  - Complete 100% of lessons, activities, questions, activity reports and work hours





# 4-H Veterinary Science

Certificate of Completion

Title of

**Veterinary Assistant**

Presented to

**Student's Name**

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County Extension Agent

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4-H Volunteer Leader

# Award for Excellence

- Successfully complete 5-year curriculum
  - Lessons (100%)
  - Activities (100%)
  - Lesson questions (100%)
  - Activity reports (100%)
  - Work hours (100%): 800 – 2400 hrs





# Certificate of Participation

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- Complete 5-year curriculum
  - Lessons (>60%)
  - Activities (>60%)
  - Lesson questions (>60%)
  - Activity reports (>60%)
  - Work hours (<60%): <500 – 1500 hrs
  
- Title Classification – none
  
- Award Recognition – none

# Veterinary Assistant (VA)

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- Study course
- Veterinary clinical apprenticeship – >500 hrs
- Information
  - <http://aevm.tamu.edu>



# Certified Veterinary Assistant (CVA)

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- Level I
  - Study course
  - Veterinary clinical employment – >500 hrs
  - Examination
  - Application
    - <http://www.tvma.org>
- Levels II, III, IV



# Veterinary Technician (VT)

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- College courses – Associate Degree
- Information
  - <http://www.avma.org>



# Registered Veterinary Technician (RVT)

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- College courses – Associate Degree
- Examination
- Application
  - <http://www.avma.org>

# Veterinarian (DVM)

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- College courses – Bachelor of Science Degree
- Application to Professional Curriculum
  - Examination
  - <http://www.vetmed.tamu.edu>
- College courses – Doctor of Veterinary Medicine
  - License Examination



# Extension Veterinary Medicine

Department of Large Animal Clinical Sciences



<http://aevm.tamu.edu>

- [Vet Science Program](#)
- [Curriculum](#)
- [Lessons](#)
  - [I. Introduction](#)
  - [II. Practice Management](#)
  - [III. Patient Management](#)
  - [IV. Normal Animal](#)
  - [V. Animal Nutrition](#)
  - [VI. Handling & Restraining Animals](#)
  - [VII. Assisting with Examinations & Treatments](#)
  - [VIII. Laboratory Aids & Examinations](#)
  - [IX. Human & Animal Health](#)
  - [X. Infectious Diseases](#)
  - [XI. Non-infectious Diseases](#)
  - [XII. Principles & Methods of Disease Control](#)
  - [XIII. Sterilization Procedure](#)
  - [XIV. Common Surgical Skills](#)
  - [XV. Production Practices](#)
  - [XVI. Regulatory Veterinary Medicine](#)
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- [Vet Science Blog](#)



# Online Schedule

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- Two sessions monthly on Centra Webconference
  - Usually second and third Mondays
  - 4:30 – 6:00 PM
- Online Lessons
  - [Veterinary Science Recorded Lessons 2010](#)
  - [Veterinary Science Online Lessons 2011](#)
  - [Veterinary Science Online Lessons 2012](#)

# Accelerated Students

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- Live Online Individual Lessons under Public Events on Centra Webconference
- Recorded Online Individual Lessons under Public Recordings on Centra Webconference
- Self Study Individual Lessons with teacher PowerPoint slides under Lessons on Extension Veterinary Medicine Website
- Scheduled Group Lessons with teachers



Questions?

