



Veterinary Extension *ad hoc* Working Group



TEXAS A&M
AGRILIFE
EXTENSION



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Introduction

For over 26 years, the Veterinary Science Certificate Program (VSCP) has been disseminating research-based knowledge in veterinary science to youth in the United States. Our goal is to provide experiential training to the next generation of veterinary science paraprofessionals through science, technology, engineering, and mathematics (STEM) education nationally and internationally.

Today, program personnel are working to meet three program-focus areas over the course of the next 5 years to meet future challenges and trends within the veterinary domain. This plan will guide programmatic staff for fiscal years 2019–2023 and outlines the goals for staff members to meet each of these focus areas. This plan will guide us as we continue to grow and adapt in our commitment to serving the stakeholders of the VSCP.

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VSCP Mission

Strengthening education and empowering youth by providing career development, workforce readiness, and enhancing skills in STEM education in veterinary science.

VSCP Vision

Become a world-class leader in delivering impactful educational solutions for career development and workforce readiness in STEM education.

VSCP Overview

History

Over the past 26 years, the Veterinary Science Certificate Program (VSCP) evolved from a 4-H youth project within Texas A&M AgriLife Extension Service to a nationally recognized curriculum with program participants in all 50 states, Canada, Mexico, and South Africa.

In 1994, program founder Floron Faries Jr., DVM, completed the *Veterinary Assistant Handbook*, which was published by TAMU Instructional Materials Service (IMS) and endorsed by the Texas Education Agency (TEA). The new handbook offered students the opportunity to earn the veterinary assistant (VA) title by completing 100 lessons in veterinary science and 500 hours in an apprenticeship under the supervision of a veterinarian or licensed veterinary technician. For the next 17 years, the *Veterinary Assistant Handbook* became a best seller.

In 2012 the Institute for Infectious Animal Diseases, in cooperation with the Texas A&M AgriLife Extension Service, published a new edition by Dr. Faries, titled *Veterinary Science: Preparatory Training for the Veterinary Assistant*. The program officially became the Veterinary Science Certificate Program (VSCP) with both print and web-based curriculum options.

In 2012 and 2013, two supplemental books were added to the program: *One Health Science & Technology* and *Laboratory Science & Technology* by Heather L. Simmons, DVM, MSVPH. Students were then able to earn the title of veterinary assistant (VA) by completing 75 core lessons and 25 lessons in one of three career tracks: 1) clinical, 2) One Health, or 3) laboratory science. Additionally, eBooks were devel-

oped for each track and sold through Texas A&M AgriLife Extension Bookstore. The eBooks were later removed from inventory until such time that DRM/copyright software could be added.

Since 2014, under the direction of Joe W. Mask, PhD, the program has grown substantially with participants in all 50 states. Additions to the program include online CVA continuing education (CE) courses and two annual youth summer camps, allowing students to practice clinical skills under veterinary supervision and earn apprenticeship hours. Due to limited staff and funding, demand for the camp is much greater than the program can currently support.

VSCP Program Offices & Resources

The VSCP is a collaborative program with the Institute for Infectious Animals Diseases (IIAD) and the Texas A&M AgriLife Extension Service. The program serves 4-H, high school, homeschool, and private individuals interested in becoming a veterinary assistant or pursuing careers in veterinary medicine, One Health, or laboratory science and technology. The VSCP has offices in College Station and Amarillo, Texas. Team members include three full-time staff, three part-time/dual appointment members, and one student worker.

Data Collection Process

Internal IIAD committee members met with Mitch Owen, Mitchen Inc., an independent consultant, to assist IIAD in defining a future vision and direction for the Veterinary Science Certificate Program (VSCP) on September 12, 2018. The outcomes to develop stakeholder surveys (i.e., 4-H agents and leaders, high school teachers, homeschool participants, and other significant stakeholders) were discussed. Forty-eight respondents provided input from a stakeholder survey developed by the VSCP team.

The IIAD *ad hoc* Working Group for Veterinary Extension met on November 1, 2018 to provide input regarding the current and future state of the VSCP. Working Group members included high school and homeschool teachers; 4-H agents and leaders, and Extension professionals; industry representatives; foundation leaders; college administrators; and military professionals. Sector-specific presentations were provided by 6 different stakeholders for the VSCP. A brief presentation regarding VSCP perspectives, opportunities, and best practices was provided by each stakeholder.

Using data-gathering exercises, facilitator Mitch Owen assisted stakeholders in defining the following: 1) clarity of purpose; 2) existing and emerging issues/trends influencing the success of the VSCP; 3) current strengths; 4) areas for improvement; 5) operational challenges facing the program; and 6) best practices and possible solutions (partnerships, etc.).



Trends

The following trends and issues will impact the VSCP program and society in the next ten years. The VSCP team will work to address these issues in support of programmatic efforts. Future changes to the program will include issues that relate to the below trends and issues.

1. *Scientific and Technology Changes*

Individuals are more reliant on current and developing technology, which have become a part of our global network.

2. *Social Media*

More people are getting their information or news from various social media platforms. Future VSCP participants will have a strong need to find information and knowledge about the program on social networks and the Internet.

3. *Hands-on Learning*

Studies have shown that students learn and retain information through experiential learning. The VSCP apprenticeship and camps provide students with hands on experiential learning.

4. *Diversity*

Due to changing populations globally, the program should seek to increase minority recruitment into agriculture. Currently, females significantly outnumber males in the program. With this in mind, the VSCP should find ways to increase male participation.

5. *Greater Need for On-the-Job Training for Agricultural Teachers*

Teachers need assistance to start or continue a program within their respective schools. By offering multiple teacher trainings annually, the VSCP can provide teachers more effective ways to teach veterinary science in the classroom.

6. *Interest in Certification and College Credit*

TVMA certification allows students that do not want to attend college an opportunity to work as a paraprofessional in veterinary science. The VSCP anticipates offering college credit for students with an interest in higher education.

7. Increased Interest in STEM

There is a greater interest by policy leaders and education systems to focus today's public education system on science, technology, engineering, and mathematics. This trend is producing greater opportunity, as well as, expectation on programs like VSCP that align with this movement.

Program Strengths

The VSCP has a long history of success, which can be linked to the following program strengths. Building upon these strengths over the next 5 years will allow the program to provide innovative opportunities to VSCP stakeholders in the future.

1. Diverse Career Tracks

The program provides curriculum and resources for three program tracks: 1) clinical: companion, livestock, and exotic animal health; 2) One Health: animal, human, and environment health; and 3) laboratory science: animal health research and diagnostics). Graduates of the clinical track are eligible for certification through the Texas Veterinary Medical Association (TVMA) by examination.

2. Quality Curriculum (print and web-based)

The program provides a comprehensive science-based curriculum providing career opportunities in veterinary science, One Health, and laboratory science fields. 200 hands-on clinical skill hours take place in the classroom (high school) and 300 hours in clinical setting (e.g., private veterinary practice) under veterinary or LVT supervision (clinical track). One Health and laboratory science hours are compiled under professionals in the field. The program is affordable and easy to use. Students can complete the program for the price of the book and one web-based resource for under \$200.

3. Professional Customer Service

Programmatic staff closely monitor the central support line and respond in a timely manner. The VSCP staff also assist customers through email and phone. Campus Extension helpline is available for online technical issues related to software malfunction.

4. Nationally and Internationally Recognized

The program has been in existence for over 20 years. Participants are found in all 50 states, Canada, Mexico, and South Africa.

5. Multiple Markets

High schools, 4-H clubs, private schools and homeschools, military personnel, veterinary practices, and private individuals.

6. Increasing STEM Awareness

Integrated career pathways for students interested in science, technology, engineering, and mathematics both at the paraprofessional and professional level. Multiple career tracks, hands-on training and experiential training through apprenticeships, mentoring activities, camps, and career development events.

7. Career Opportunity (Job Placement)

On the job training through apprenticeships (500 hours) under a veterinarian, licensed veterinary technician, or a One Health or laboratory professional. TVMA certification for graduates in the clinical track.

8. Partnerships and Collaboration

Texas A&M Veterinary Medicine Diagnostic Laboratory (TVMDL): Facility tours, presentations, and hands-on activities directed by veterinarians and laboratory professionals.

Texas A&M College of Veterinary Medicine and Biomedical Sciences: Youth summer camps: providing opportunities for students to learn and practice hands-on clinical skills under veterinary supervision.

Local community colleges (e.g., Blinn College): Host career development activities and events.

Texas Veterinary Medical Association (TVMA): Certifying agency for graduates of the program's clinical track

Texas 4-H: Youth summer camps, 4-H Skillathon

Others may include: parent volunteers, governmental agencies, allied industries, homeschool associations, animal shelters, local and state educational entities.

Program Initiatives

The VSCP will work to expand in three program initiatives over the next five years. Program initiative 1 includes growth and marketing for the program to expand into additional markets while maintaining its customer base in 4-H, high schools, and homeschools. Program initiative 2 includes expansion of partnerships. The program will target partnership expansion in allied industries and the military. Program initiative 3 includes teacher training and engagement. This area will focus on expansion of program materials and training for teachers and volunteers.

Growth and Marketing: VSCP will strengthen and expand access to the program through a marketing plan and strategic effort to reach several new audiences.

Expansion of Partnerships: VSCP will expand partnerships with different groups for skills hour placement in an effort to sustain additional curricula.

Teacher Training and Engagement: VSCP will expand opportunities for teacher training and engagement with program areas.

Another program initiative was defined as curriculum refinement by the IIAD *ad hoc* Working Group for Veterinary Extension. The VSCP team has determined this to be an ongoing operational process for the program. Resources and methods for the operational process of curriculum refinement will be further addressed by the working group in summer of 2019. Specifically, objectives will address curriculum refinement in two areas: 1) VSCP for CTE/STEM teachers and 2) subject matter experts (SMEs) and review for relevance and accuracy of program topics related to veterinary medicine.

Program Initiative 1

Growth and Marketing

Program Initiative 1 Goals

Short-term Goals (AY 2019)

- Goal 1** *Introduce and inform 2 Texas military bases about VSCP by June 2019.*
- Goal 2** *Assess VSCP livestock commodity group needs by September 2019.*

Mid-term Goals (AY 2020 – 2022)

- Goal 3** *Implement the VSCP into 6 military installments in Texas by December 2020.*
- Goal 4** *If need is identified in goal 2, repackage program to pilot to “beef commodity” by December 2021.*
- Goal 5** *Translate VSCP program into Spanish to diffuse internationally (i.e., Latin America).*

Long-term Goals (AY 2023 – 2024)

- Goal 6** *Expand implementation of program in Texas by 4 new military installments in Texas and 6 additional states by December 2024.*
- Goal 7** *Expand implementation of VSCP program into 2 additional livestock commodities by December 2024.*
- Goal 8** *Implement VSCP program at community animal health worker level countries in Africa by December 2024.*

Program Initiative 2

Expansion of Partnerships

Program Initiative 2 Goals

Short-term Goals (AY 2019)

- Goal 1** *Increase military partnerships for VSCP to with 2 military high schools/bases in Texas by April 2019.*
- Goal 2** *Identify and develop 2 new military and industry partnerships to tap into emerging markets for VSCP for program sustainability to pilot in Texas by August 2019.*

Mid-term Goals (AY 2020 – 2022)

- Goal 3** *Expand military-focused VSCP track to 4 new states for VSCP adoption by the December 2021.*
- Goal 4** *Develop 3 industry partnerships (i.e., commodity, pharmaceutical, or Banfield) and/or veterinary organization (i.e., American Veterinary Medical Association) by December 2022.*
- Goal 5** *Develop a retired/inactive veterinarian, RVT, LVT database to implement a volunteer program at the county level in Texas by December 2021.*
- Goal 6** *To promote One Health and laboratory tracks, develop an internship placement database for students enrolled in these tracks in Texas by December 2021.*
- Goal 7** *Expand the program to target 2 emerging international markets for community animal health workers, by December 2024.*

Long-term Goals (AY 2023 – 2024)

- Goal 8** *Expand volunteer program to 4 new states for VSCP adoption annually (December 2023 and December 2024).*
- Goal 9** *Expand adoption and diffusion of One Health and Laboratory internship placement database to 4 states annually by SAHOS and laboratory personnel by June 2023.*
- Goal 10** *Develop a tracking scorecard database which provides information on a) % increase in clinical opportunities; b) % increase in mentoring opportunities; c) % increase in industry funding; d) % increase in sales by June 2023.*

Program Initiative 3

Teacher Training and Engagement

Program Initiative 3 Goals

Short-term Goals (AY 2019)

- Goal 1** *Conduct a needs assessment with high school teachers to determine training gaps and opportunities for engagement with the current VSCP training model by September 2019.*
- Goal 2** *Develop 6 online introductory marketing pieces (i.e., video) for non-ag teachers that will be devoted to each market base in the VSCP (i.e., 4-H, High School, Home School, Military, Industry, and Private Practitioners) which identifies the requirements needed by each component to onboard students into the program by June 2019.*
- Goal 3** *Develop a long-term training and marketing plan for the program for teachers by September 2019.*

Mid-term Goals (AY 2020 – 2022)

- Goal 4** *Increase social media presence for Facebook and Twitter by 500 followers annually by December 2020.*
- Goal 5** *Increase teacher trainings by 2 annually through different modalities (i.e., face-to-face, webinars, conferences or recordings) by December 2021.*
- Goal 6** *Evaluate revised approach for communication strategies and review benchmarks developed by programmatic team annually by December 2021.*
- Goal 7** *Embed formal, continuous evaluation activities into the planning and delivery of all teacher trainings by December 2022.*

Long-term Goals (AY 2023 – 2024)

- Goal 8** *Increase social media presence for Facebook and Twitter by 500 followers annually and expand to 2 new platforms by December 2023.*
- Goal 9** *Survey teachers, 4-H leaders, and volunteers regarding curriculum with a 35% response rate from current users by December 2024.*

* Listed in alphabetical order

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