

# The Education System for Veterinarians and VPPs in the USA

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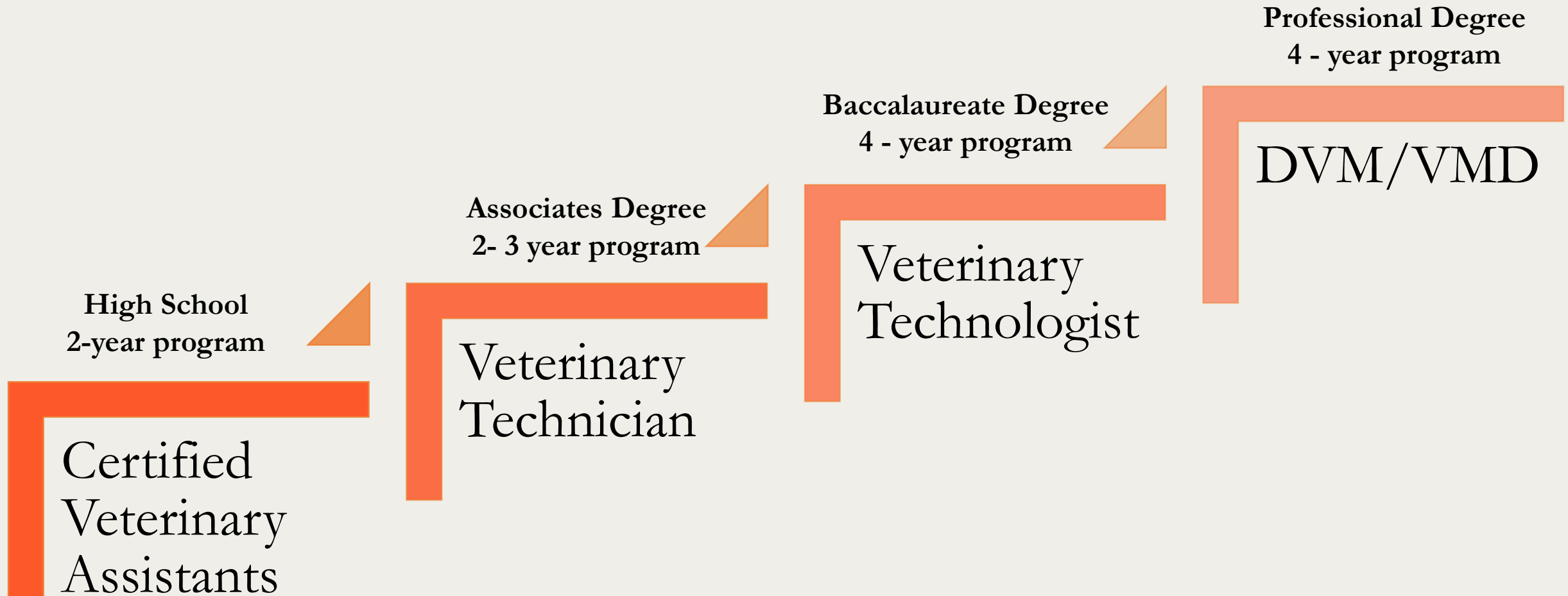
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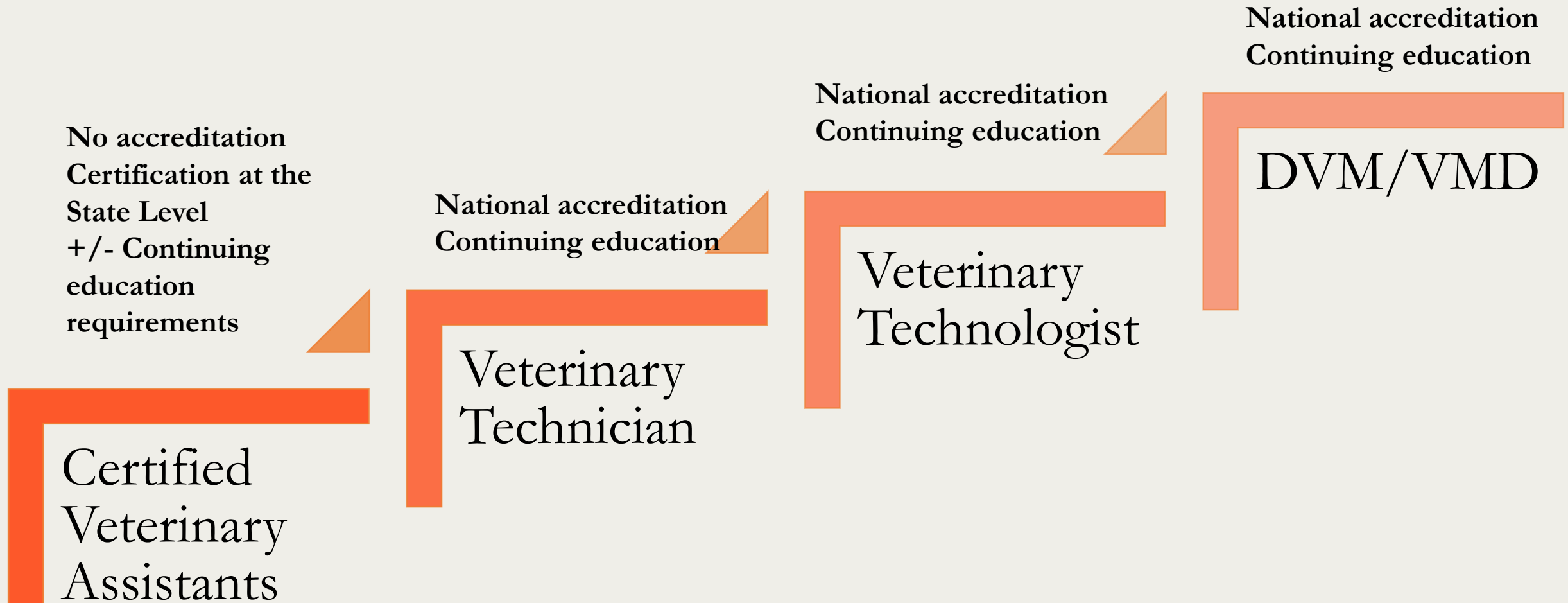


# Framework for the United States Veterinary Educational Sector



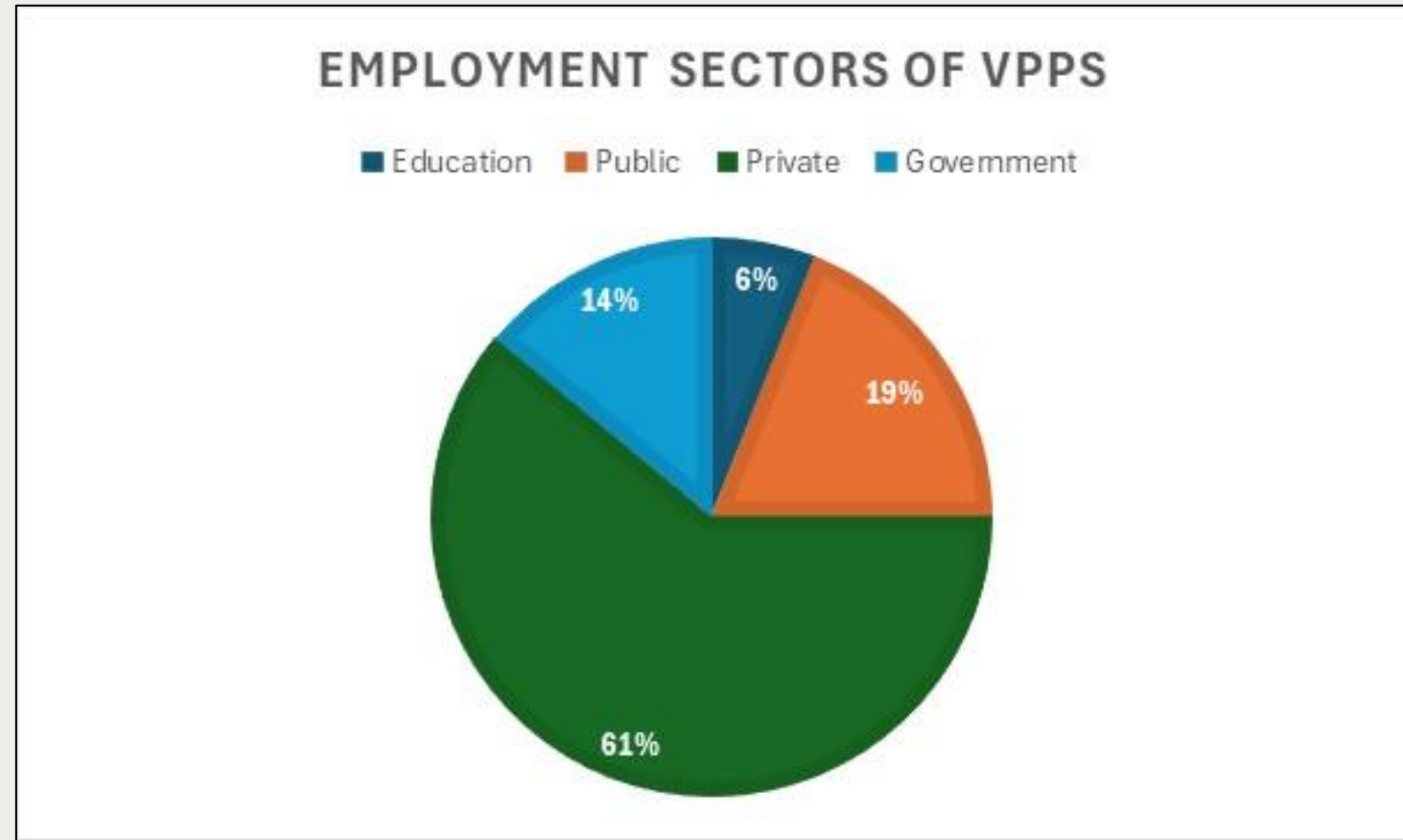


# Framework for the United States Veterinary Educational Sector





- ❑ **> 101,000 VPPs in USA**
  - Female (81%) and Male (19%)
- ❑ **Average salary: \$40,369**
  - No pay gap by gender
  - High school diploma or less (~ \$39,000)
  - Bachelors and Associate (~ \$41,000)



**Approximately 1/3 of VPPs remain for 1-2 years before leaving their employment**

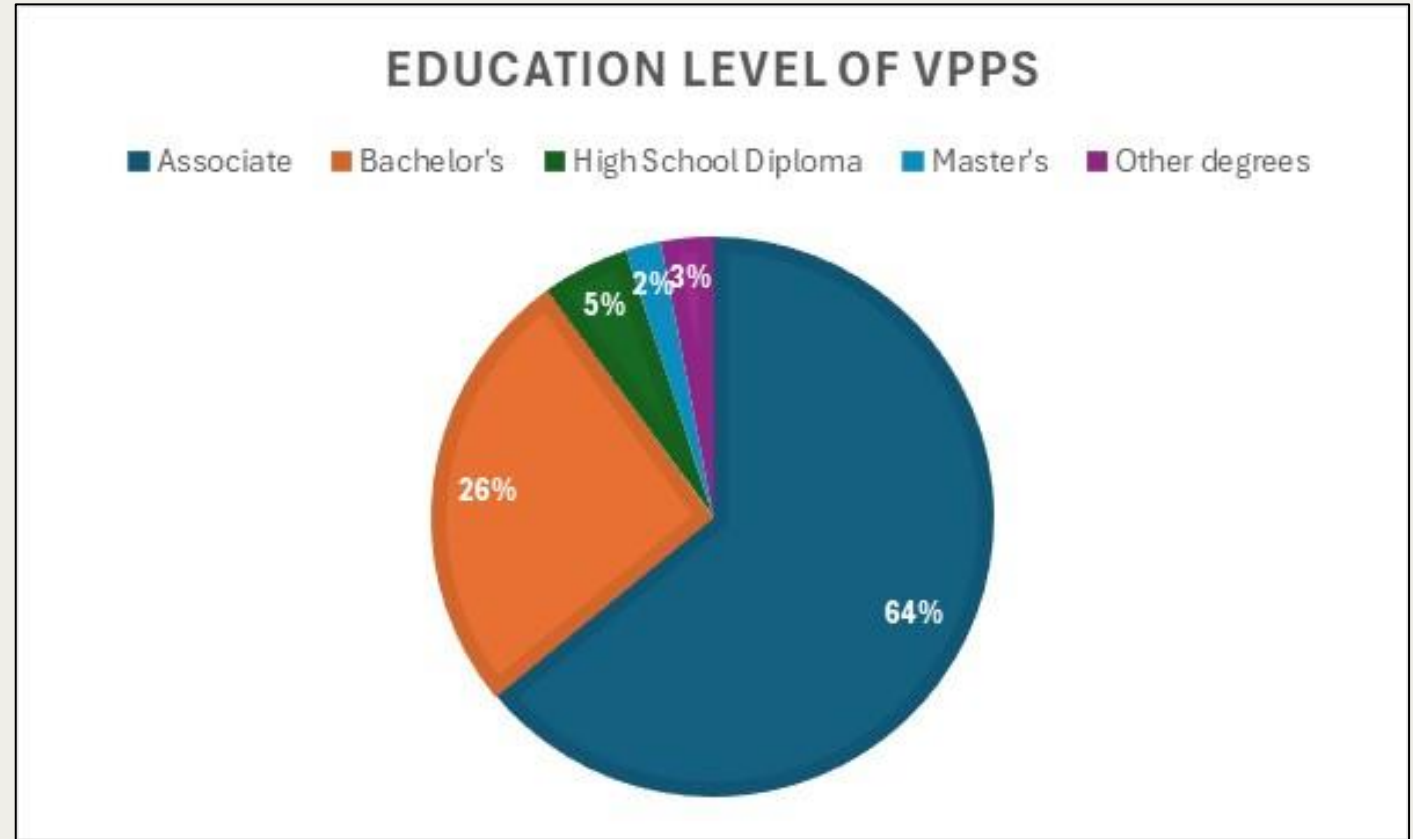


## ❑ No. of accredited programs (200)

- Veterinary Technology (28)
- Veterinary Technician (172)

## ❑ Categories - No

- Licensed
- Registered
- Certified





## VPTI = Veterinary Paraprofessional Training Institution

1

Institutional  
accreditation

2

Finances

3

Organisation and  
communication

4

Physical facilities  
and equipment

5

Library and  
informational  
resources

6

Admissions

7

Students

8

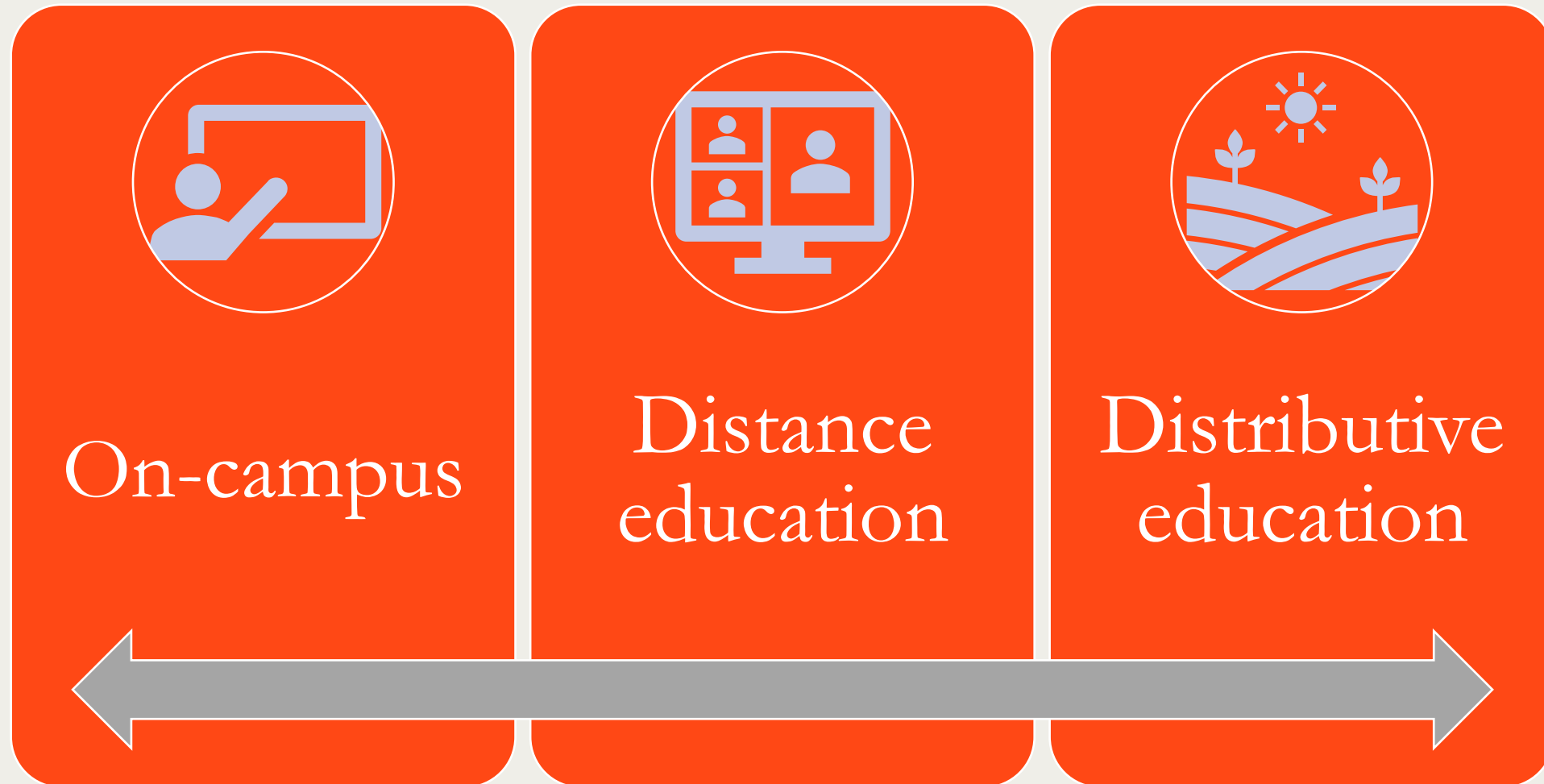
Faculty and staff

9

Curriculum

10

Outcomes  
assessment



**Use Competency Based Approaches for Outcomes Assessment**



## General

- Applied mathematics
- Biological sciences
- Communication skills
- Fundamentals of chemistry

Minium Pre-requisites to apply

- Minimum GPA of 2.5
- Prerequisites for admission  
– variable by institution
- Reference letters
- Application process





## VPPs: Minimum Curriculum Standards

- Anatomy and physiology
- Anesthesia (including monitoring and instrumentation)
- Animal husbandry
- Biosecurity/safety
- Clinical pathology/parasitology
- Diseases/preventive medicine
- Economics of veterinary practice
- Ethics/professionalism/legal applications
- Humane animal care and management
- Introduction to laboratory animal medicine
- Life-long learning concepts
- Medical terminology
- Microbiology and immunology
- Necropsy techniques
- Nutrition and principles of feeding
- Orientation to the profession of veterinary technology

**Minimum of 60 semester credit hours or equivalent**



- Pharmacology for veterinary technicians
- Principles of imaging, including radiography and ultrasonography
- Safety issues for areas of zoonoses and occupational safety
- Surgical nursing and assisting, including instrumentation
- Technician utilisation and team concepts of health care delivery
- Value of professional organisations
- Veterinary practice management

**Minimum of 60 semester credit hours or equivalent**



## Veterinarians: General Sector Statistics

11

❑ > 127,000 veterinarians in USA

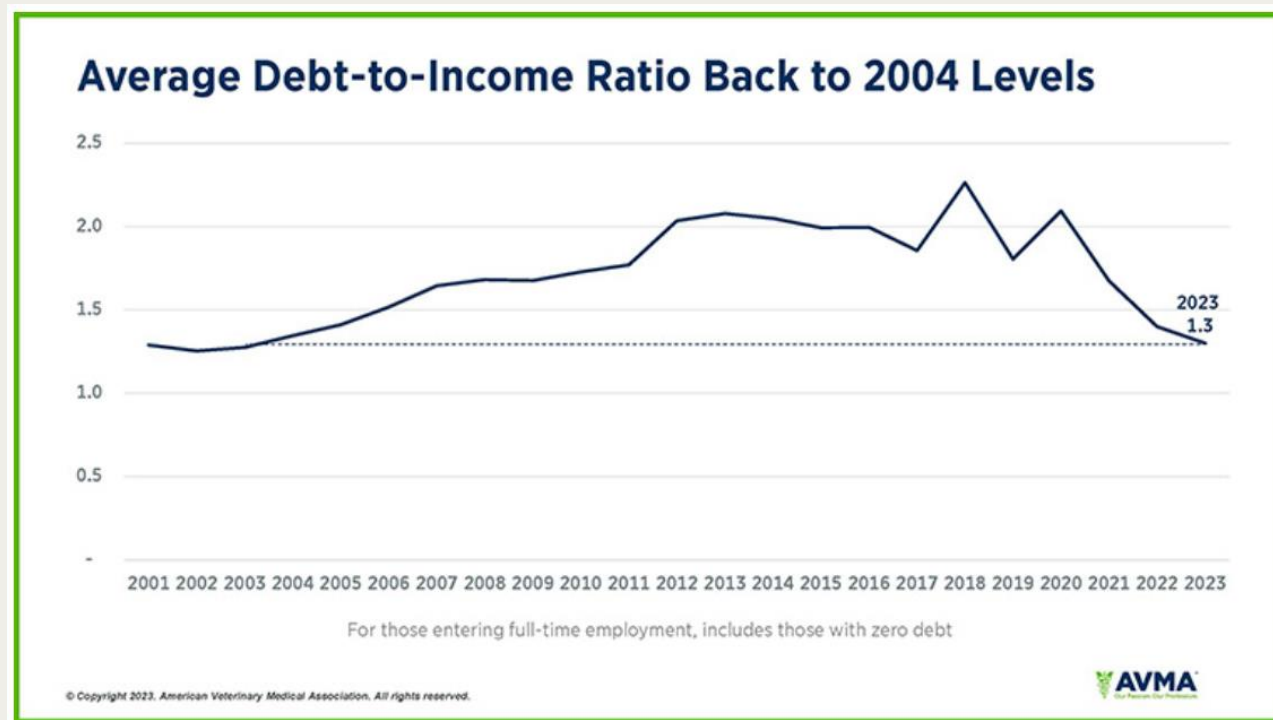
- Female (67%) and Male (33%)

❑ Average debt for a graduating veterinarian is ~\$155,000

Mean starting salary: ~\$125,000

- Highest paid going into private practice (companion animal)

- Lowest paid were residencies

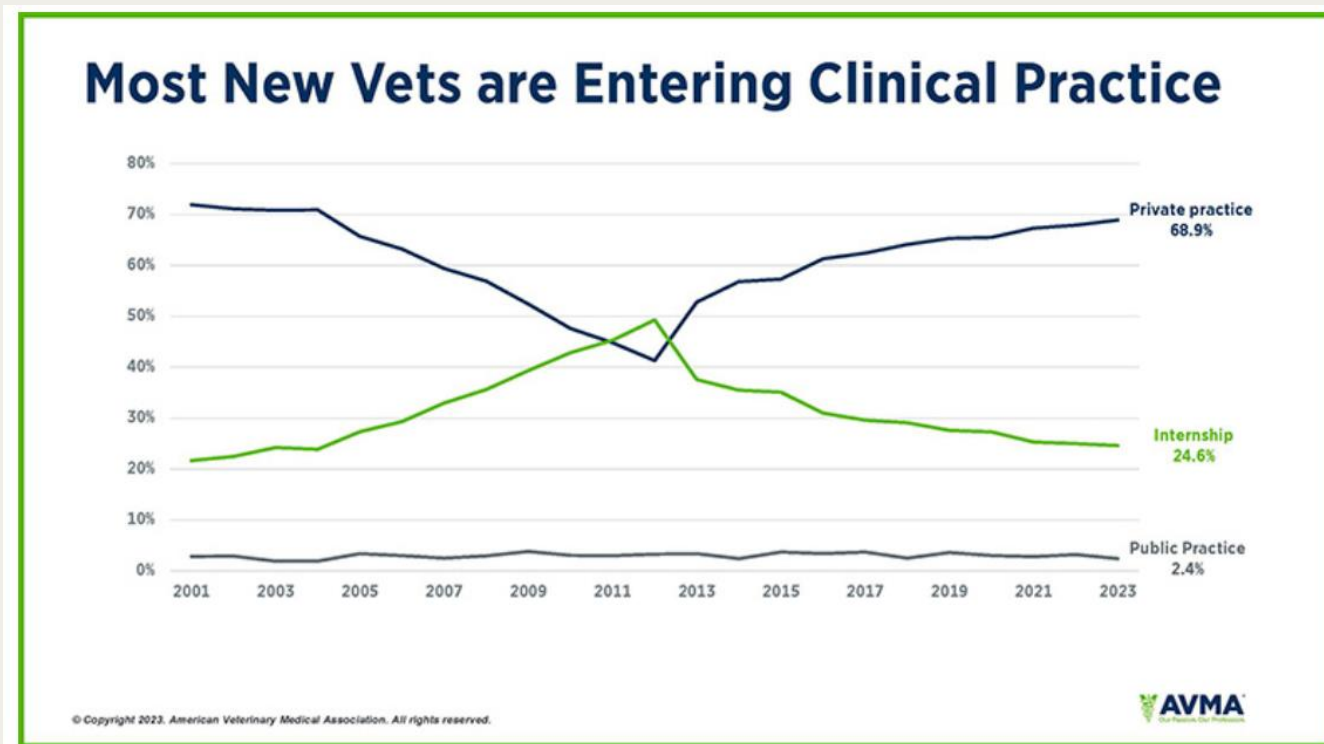


<https://www.avma.org/news/veterinary-starting-salaries-rise-2023-educational-debt-holds-steady>

**Main issues: Student debt to income ratio and rural veterinarian shortages**



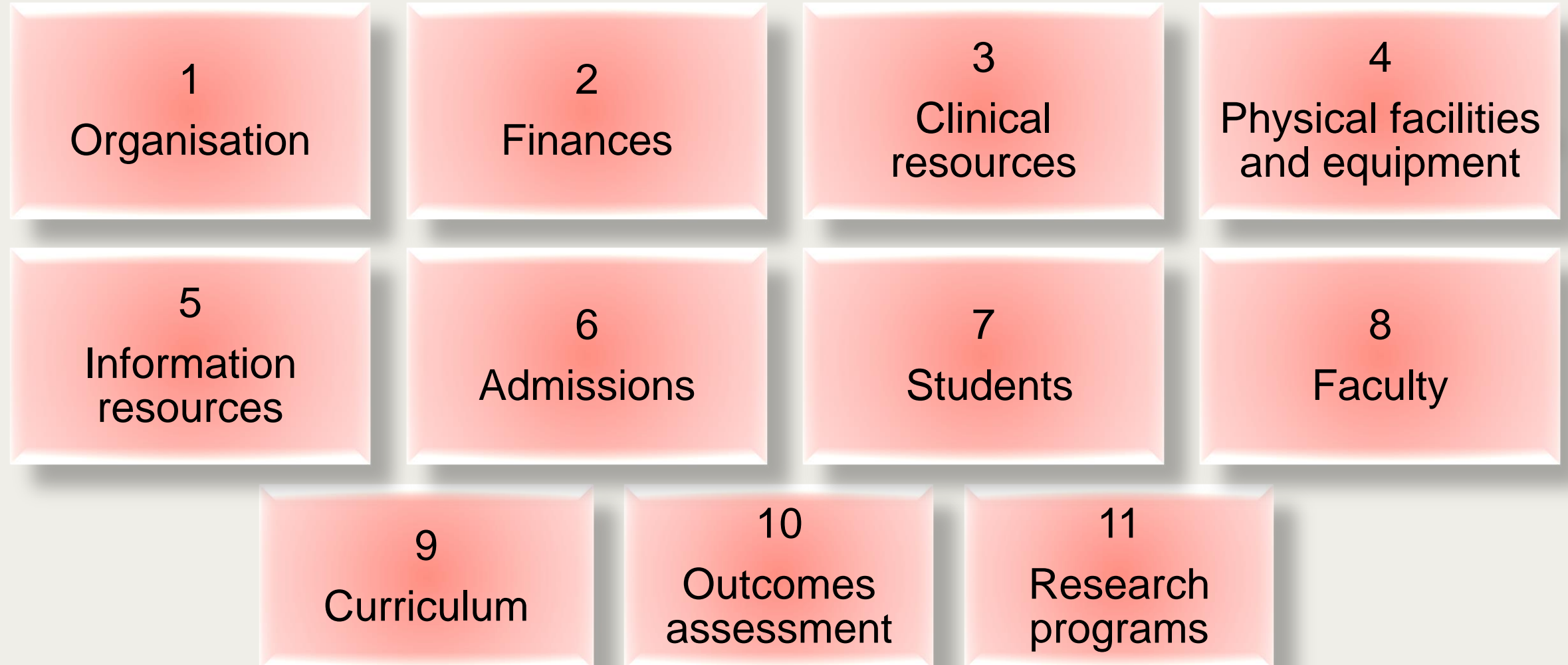
- ❑ No. of accredited programs
  - Worldwide (49) – including USA
  - Within USA (31)
- ❑ Categories (USA)
  - Internship
  - Residency
  - Public Practice
  - Other



<https://www.avma.org/news/veterinary-starting-salaries-rise-2023-educational-debt-holds-steadyc>



## VMC = Veterinary Medical Colleges





### □ Prerequisites for admission – variable by institution

- Credit hours range from 45 – 90 semester hour at the Bachelor's level
- Most students admitted to a DVM/VMD program have completed and graduated with a Bachelor's degree
- Completion of pre-requisite courses before applying to program
- Submission of standardized test scores
  - Graduate Record Exam
  - Veterinary College Admission Test
  - Medical College Admission Test
- Formal experience in working with a DVM

### □ Application Process

- Highly competitive process (one of the most competitive of all sectors in USA)



## Example Curriculum Schedule

### Texas A&M University – College of Veterinary Medicine and Biomedical Sciences (2024 Academic Calendar)

Year	Semester	Course (Credit Hours)
1	Fall	<ul style="list-style-type: none"><li>- Integrated animal care I (3)</li><li>- Professional &amp; Clinical Skills I (3)</li><li>- Small Animal Anatomy (4)</li><li>- Physiology I (6)</li><li>- Veterinary Immunology (2)</li><li>- Histology (1)</li><li>- Veterinarians in Society (2)</li></ul>
1	Spring	<ul style="list-style-type: none"><li>- Integrated animal care II (2)</li><li>- Professional &amp; Clinical Skills II (3)</li><li>- Clinical Anatomy of Large Animals (3)</li><li>- Agents of Disease I (4)</li><li>- Physiology II (5)</li><li>- Pathology I (3)</li></ul>

**Year 1 Credit Hours = Fall Semester (21), Spring Semester (17)**



## Example Curriculum Schedule

### Texas A&M University – College of Veterinary Medicine and Biomedical Sciences (2024 Academic Calendar)

Year	Semester	Course (Credit Hours)
2	Fall	<ul style="list-style-type: none"><li>- Professional &amp; Clinical Skills III (3)</li><li>- Agents of Disease II (4)</li><li>- Clinical Laboratory Medicine – Clinical Pathology (5)</li><li>- Public Health, Epidemiology &amp; Evidence-based Medicine (3)</li><li>- Pathology II (3)</li><li>- Pharmacology (3)</li><li>- Elective (2)</li></ul>
2	Spring	<ul style="list-style-type: none"><li>- Professional &amp; Clinical Skills IV (3)</li><li>- Principles of Surgery (2)</li><li>- Introduction to Diagnostic Imaging (2)</li><li>- Principles of Anesthesia &amp; Analgesia (3)</li><li>- Organ Dysfunction: Recognition, Diagnostics &amp; Supportive Care (4)</li><li>- Integrated Animal Care III (4)</li><li>- Elective (2)</li></ul>

**Year 2 Credit Hours = Fall Semester (23), Spring Semester (20)**





## Example Curriculum Schedule

### Texas A&M University – College of Veterinary Medicine and Biomedical Sciences (2024 Academic Calendar)

Year	Semester	Course (Credit Hours)
3	Fall	<ul style="list-style-type: none"> <li>- Professional &amp; Clinical Skills V (3)</li> <li>- Small Animal Diagnostics &amp; Therapeutics I (4.5)</li> <li>- Large Animal Diagnostics &amp; Therapeutics I (3.5)</li> <li>- Career focus tracking I (2) (students choose 1 course)               <ul style="list-style-type: none"> <li>- Companion animal, equine or food animal</li> </ul> </li> <li>- Surgery (5)</li> <li>- Diagnostic Imaging &amp; Interpretation (2)</li> <li>- Career Selectives (4)               <ul style="list-style-type: none"> <li>- small animal, laboratory-based, large-animal or exotic elective</li> </ul> </li> </ul>
3	Spring	<ul style="list-style-type: none"> <li>- Professional &amp; Clinical Skills VI (4)</li> <li>- Small Animal Diagnostics &amp; Therapeutics II (4.5)</li> <li>- Large Animal Diagnostics &amp; Therapeutics II (3.5)</li> <li>- Career focus tracking II (2) (students choose 1 course)               <ul style="list-style-type: none"> <li>- Companion animal, equine or food animal</li> </ul> </li> <li>- Clinical experience (3)</li> <li>- Career Selectives (4)</li> </ul>

**Year 3 Credit Hours =  
Fall Semester (24),  
Spring Semester (21)**



## Example Curriculum Schedule

### Texas A&M University – College of Veterinary Medicine and Biomedical Sciences (2024 Academic Calendar)

Year	Semester	Teaching Hospital Tracks
4	Entire Year	<ul style="list-style-type: none"><li>- Companion animal track*</li><li>- Rural/Mixed animal track*</li><li>- Equine track*</li><li>- Alternative track**</li><li>- Production track**</li></ul>

- All 5 training track require 24 weeks of identical core rotations (2-week/rotation)
- Rotations occur during Holiday times and when the university is closed
- 48 credit hours are earned during Year 4 of the curriculum

\* All track rotations occur at TAMU Veterinary Medical Teaching Hospital Facilities

\*\* Students must apply and be approved as rotations may occur outside of the TAMU Veterinary Medical Teaching Hospital Facilities

# Thank you

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