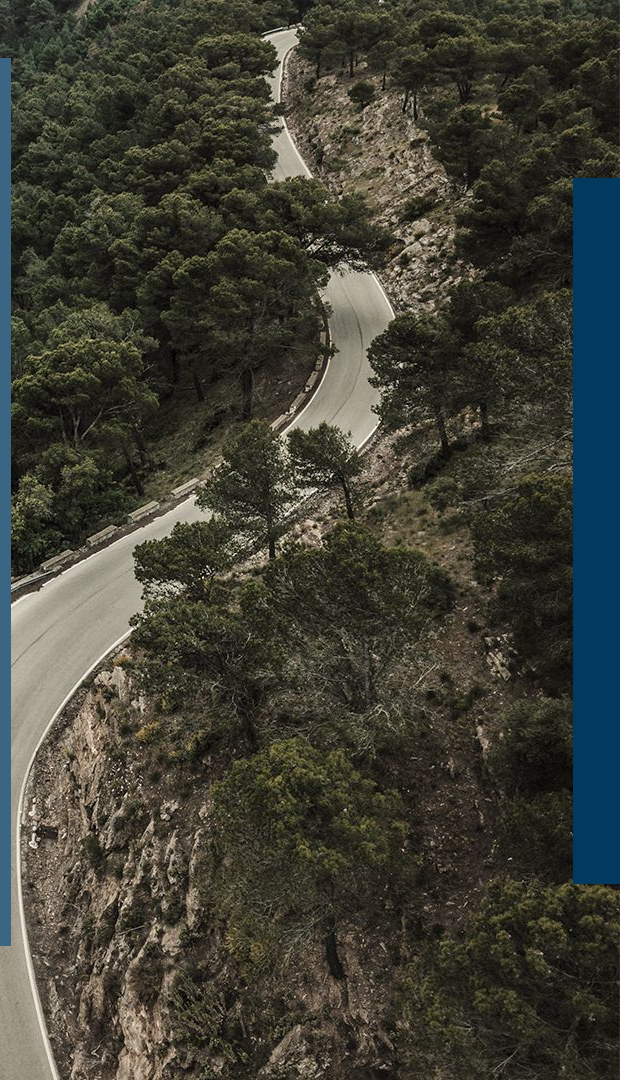# Comprehensive Approach to Optimizing VTNE Pass Rates

Noah Meyers, LVT, FVTE, Tidewater Community College

Dr. Megan Taliaferro, DVM, Tidewater Community College

Pattie Seeger, LVT, BBA, Tidewater Community College

Learning Objectives

01

Analyze how a **VTNE-aligned curriculum**, scaffolded coursework, and structured **active learning strategies** contribute to **student competency, knowledge retention, and VTNE pass rates**

02

Evaluate the role of **immersive simulation labs and required clinical experience** in developing **critical thinking, technical proficiency, and confidence** in **anesthesia and surgical nursing**

03

Develop strategies for leveraging **real-time student feedback, individualized, study support, and structured remediation plans** to improve **student performance, retention, and program outcomes**

Program Background

SECTION 1
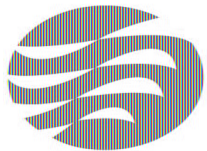
TIDEWATER COMMUNITY C
From here, go anywl

First new program in VA in over 40 years

New Program Challenges:

- Lack of curriculum
- Lack of instructors
- Accreditation hurdles

Additional Challenges

- Lack of infrastructure to support clinical skill acquisition

TCC BY THE NUMBERS

Accreditation

2020 Initial Accreditation
2025 Full Accreditation

3 Year VTNE Pass Rate

91%

Retention Rate

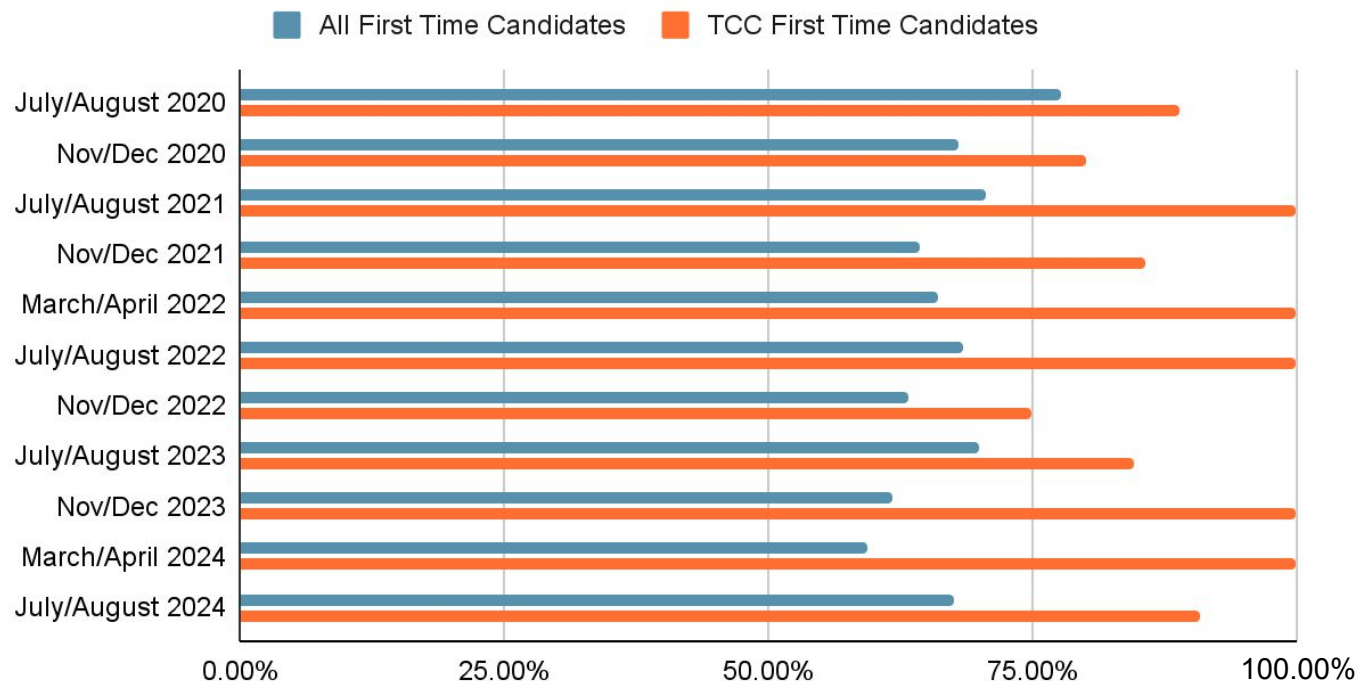**90%** of students **graduate on-time**

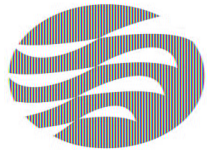# Student VTNE Success

Open Admission Policy:

- Minimal prerequisites
- No GPA weighting in admissions

Pass/Fail Rates Report

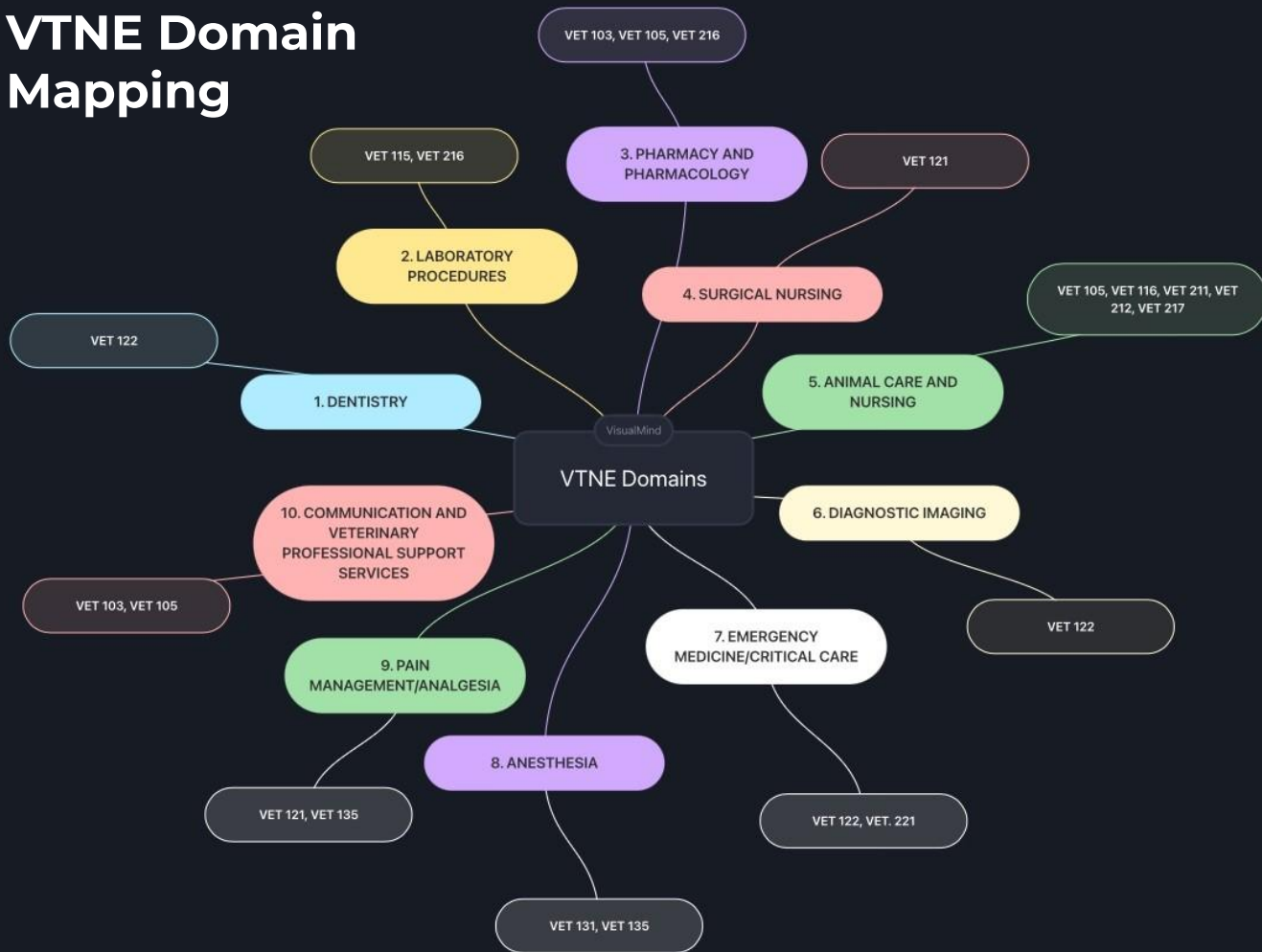# Core Educational Model: Curriculum, Simulation, Clinical Experience

SECTION 2

VTNE Domain Mapping

VisualMind

VTNE Domains

- VET 103, VET 105, VET 216
- 3. PHARMACY AND PHARMACOLOGY
- VET 121
- VET 115, VET 216
- 2. LABORATORY PROCEDURES
- 4. SURGICAL NURSING
- VET 105, VET 116, VET 211, VET 212, VET 217
- VET 122
- 1. DENTISTRY
- 5. ANIMAL CARE AND NURSING
- 10. COMMUNICATION AND VETERINARY PROFESSIONAL SUPPORT SERVICES
- 6. DIAGNOSTIC IMAGING
- VET 103, VET 105
- VET 122
- 9. PAIN MANAGEMENT/ANALGESIA
- 7. EMERGENCY MEDICINE/CRITICAL CARE
- 8. ANESTHESIA
- VET 121, VET 135
- VET 122, VET. 221
- VET 131, VET 135

Scaffolding Progression: Course Mapping

VET 121 & 135 - Anesthesia, Analgesia, & Surgical Assisting - Using Medical Math on Live Patients

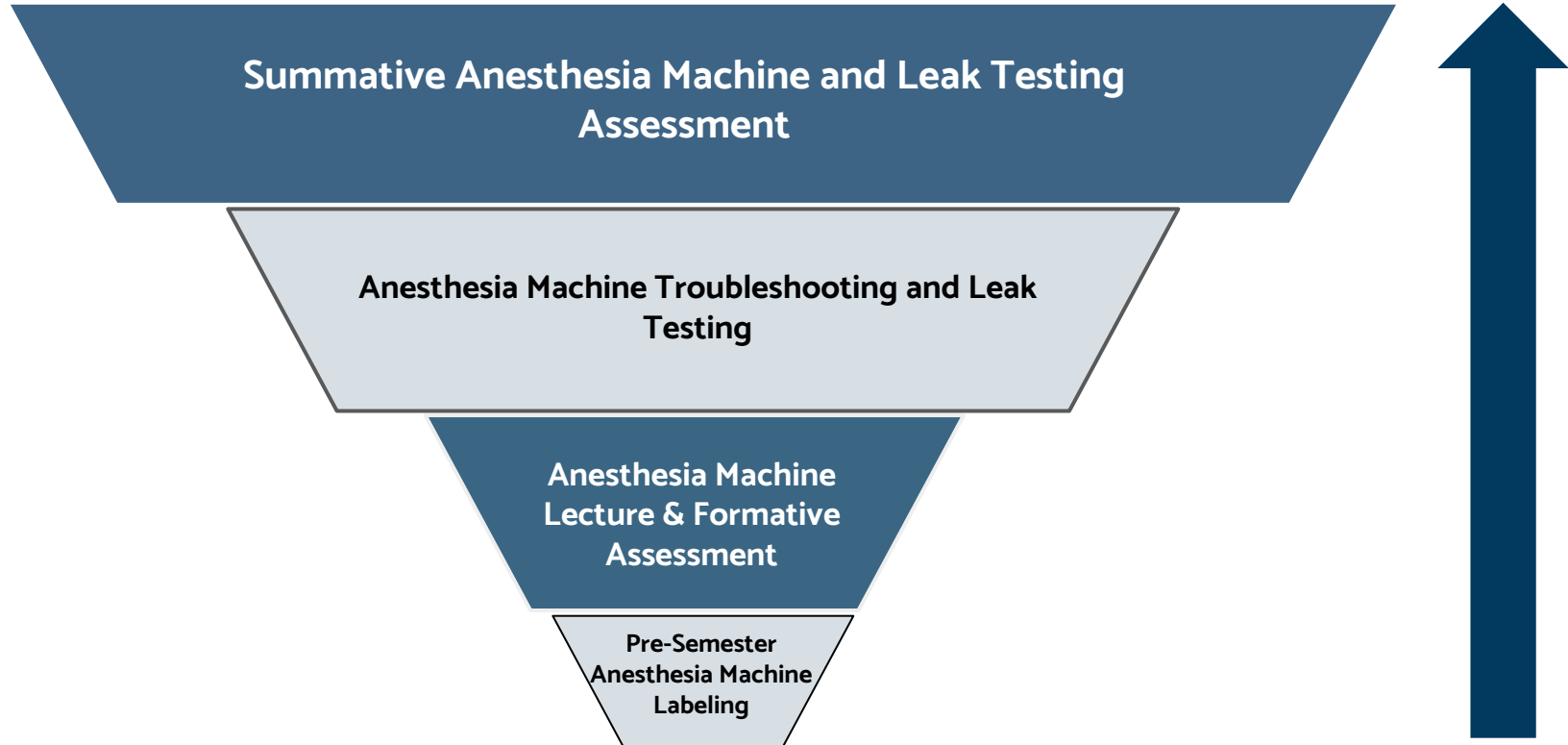VET 216 - Pharmacology - Using Medical Math on Written Case Reports

VET 105 Reviewing Basic + Advanced Calculations

VET 103 Basic Medical Math

Scaffolding Progression: Projects & Assignments

VET 121

ZUKUREVIEW

HOME   NAVLE®   BCSE/PAVE   VTNE   MEMBER HOME

USEFUL TOOLS   MY ACCOUNT   REPORTS   LOGOUT

EN FR ES

Hoot Camp
NAVLE® Course

⌂ Member Home / Readiness Exams

VTNE Readiness 1

VTNE Readiness 2

Study Progre
(17/1921 compl

Extend My M

Dentistry	93
Diagnostic Imaging	146
Emergency/Critical Care	155
Lab Results	359
Nursing	541
Pain Mgt/Analgesia	62
Pharmacy	156
Surgery	187

rse: VTNE

TESTS BY PRACTICE   VTNE READINESS 1   VTNE CALCS, IMAGE AND VOCAB QS

01:58:31   Save & Exit

| 1 | 2 | 3 | 4 | 5 | 6 | 7 🔖 | 8 | ... | 125 |

Hide Jumper   Show Jumper   Show all

What kind of teeth do horses have?

☐ Aradicular hypsodontic   HIDE

☐ Apical orthodontic   HIDE

☐ Radicular hypsodontic   HIDE

☐ Radicular brachyodontic   HIDE

☐ Aradicular brachyodontic   HIDE

Select Language: 🇺🇸 🇫🇷 🇲🇽

Back   Next

Overview   Calculator   Mark Question   Report Problem

0   0% (0 /187)   0% (0 /0)

Clinical Training That Reinforces the Classroom

— 20 hours/week minimum **Veterinary Assistant** work in approved clinical sites

— Sites evaluated against a gold-standard checklist by faculty

— **Direct application of concepts learned in classroom in clinical setting**

Clinical Training Continued

15. PERFORM CEPHALIC VENIPUNCTURE (CANINE AND FELINE)*

Required Reading/Videos:

- *Essential Clinical Procedures for Veterinary Technicians pgs. 115-116*

Supplies Needed
- Syringe and needle

Animal(s) Needed
- Dog
- Cat

Standard Criteria:

- The student identified the distended vein and placed their thumb alongside for stabilization
- The student inserted the needle bevel side up
- The student drew back on the plunger steadily
- The student told the assistant to release compression of the vein
- The student withdrew the needle and syringe from vein

Material(s) to be Submitted for Instructor Evaluation: This sheet signed by your mentor.

The final evaluation of this task will be done by TCC veterinary technology faculty at the Nursing Skills lab.

"I certify that the student properly performed the procedure according to the standard criteria as outlined above under my direct supervision."

Signature of Clinical Mentor: _____ (Canine)

Signature of Clinical Mentor: _____ (Feline)

Structured Clinical Assignments

CONTINUOUSLY

Students are required to **discuss assignments**, such as drug selection and anesthetic protocols, with clinical mentors

FROM THE START

Clinical assignments and labs are **linked to didactic content**

UNTIL GRADUATION

Concepts and ideas are **reinforced** through active reflection and critical thinking in real-time

IMMERSIVE SIMULATION LABORATORIES: *BRINGING CLASSROOM MATERIAL TO LIFE*

Nursing Sim Lab

2nd Semester**, basic nursing care for simulated patient** going through the hospital

Anesthesia Sim Lab

4th Semester, **hands-on learning, improved confidence & clinical readiness.**

Mimics hospital team dynamic and time pressures

Purposeful LOW ratios 1:1 for live animal anesthesia cases

All labs planned with close collab between faculty members

Lab Ratios and Planning

For cases, **students are exposed to a wide variety of abnormalities** that occur and instructed on how to respond

Gold Standard Protocols

IMPACT OF SIMULATION

Why It Matters:

- Simulation creates a **safe, repeatable, and immersive environment** for skill building.

- Enables development of **clinical confidence, decision-making**, and **team-based communication**–without risking live patients.

What the Research Shows:

"Simulation-based training delivers all the benefits of world-class medical education–without putting patients at risk."

"NCSBN's landmark study (2014) concluded that simulation can effectively replace up to 50% of clinical hours without compromising competency."

Source: Hayden et al., _Journal of Nursing Regulation_, 2014, Surgical Science, _An Introduction to Medical Simulation for Veterinary Training_, 2024

Program Evaluations

Employer Evaluation of 2023 Veterinary Technician Graduates

As we grow as a program, we rely on the feedback from the employers of our graduates to help us enhance and improve our students' educational experience.

For this evaluation, all responses will be anonymous.

There will be 3 sections to evaluate regarding the knowledge, clinical skills, and overall performance of your employee as an *entry level LVT*.

If viewing this survey on a mobile device, please scroll to the right to view all assessment options.

Section 2. Clinical Skills- How would you rate your employee's skill proficiency in the following areas?

If you select a 3 or below, please describe the areas that need improvement in the provided comment box.

1= Poor 5=Excellent *

	1	2	3	4	5
Dentistry	○	○	○	○	○
Urinalysis	○	○	○	○	○
Parasitology	○	○	○	○	○
Hematology	○	○	○	○	○
Anesthesia	○	○	○	○	○
Surgery	○	○	○	○	○
Radiology	○	○	○	○	○
Nursing	○	○	○	○	○

Comments?

Your answer

Program Evaluations

VETERINARY TECHNICIAN NATIONAL EXAMINATION

School: 867 — Tidewater Community College

Testing window July 15 - August 20

Test Form: VTNAA13B   Tested 7/15/2021 - 8/20/2021

Generated on: September 14, 2021

Score Report Prepared by PSI Services, LLC

Internal Verification Report

YOUR SCHOOL FIRST TIMERS DATA BASED ON 13 CANDIDATES

	Maximum Raw Scores	Range of Raw Scores	Average Raw Scores	Standard Deviation	Average Percent Correct
Scaled Total	800	457 - 690	581.23	82.12	72.65%
Raw Total	150	97 - 133	116.23	12.70	77.49%
Pharmacy and Pharmacology	18	11 - 18	14.92	2.43	82.91%
Surgical Nursing	17	6 - 17	12.15	3.21	71.49%
Dentistry	12	6 - 12	8.46	1.45	70.51%
Laboratory Procedures	17	9 - 17	13.15	2.57	77.38%
Animal Care and Nursing	30	20 - 29	24.54	2.85	81.79%
Diagnostic Imaging	11	6 - 11	9.31	1.32	84.62%
Anesthesia	22	13 - 19	16.15	2.18	73.43%
Emergency Medicine/Critical Care	12	6 - 12	9.23	2.04	76.92%
Pain Management/Analgesia	11	6 - 11	8.31	1.38	75.52%

Promoting Student Success Through Active Support

SECTION 3
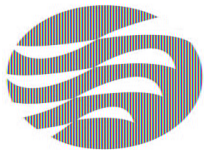
TIDEWATER
COMMUNITY C

From here, go anywl

PROMOTING STUDENT SUCCESS THROUGH ACTIVE FACULTY SUPPORT

Tutoring

- **Individualized** support
- **Faculty-**led

Financial Assistance

- School pays 50% of **Zukureview**

Remediation

- Faculty identify students who are **struggling**
- Faculty meet to determine **support strategies**

Advising

- Students assigned **vet faculty** member as **advisor**
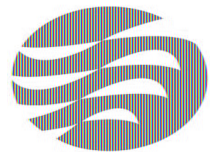
STUDENT SUCCESS THROUGH ACTIVE SUPPORT

- **Student Check-In**
  - Inquires about classroom AND clinical skills

- **Mid** and **End** of Semester Evaluations from Clinical Mentors

- QR code **post lab**, for instructor to receive **immediate** feedback on lab experience for students
  - Able to adjust material in realtime
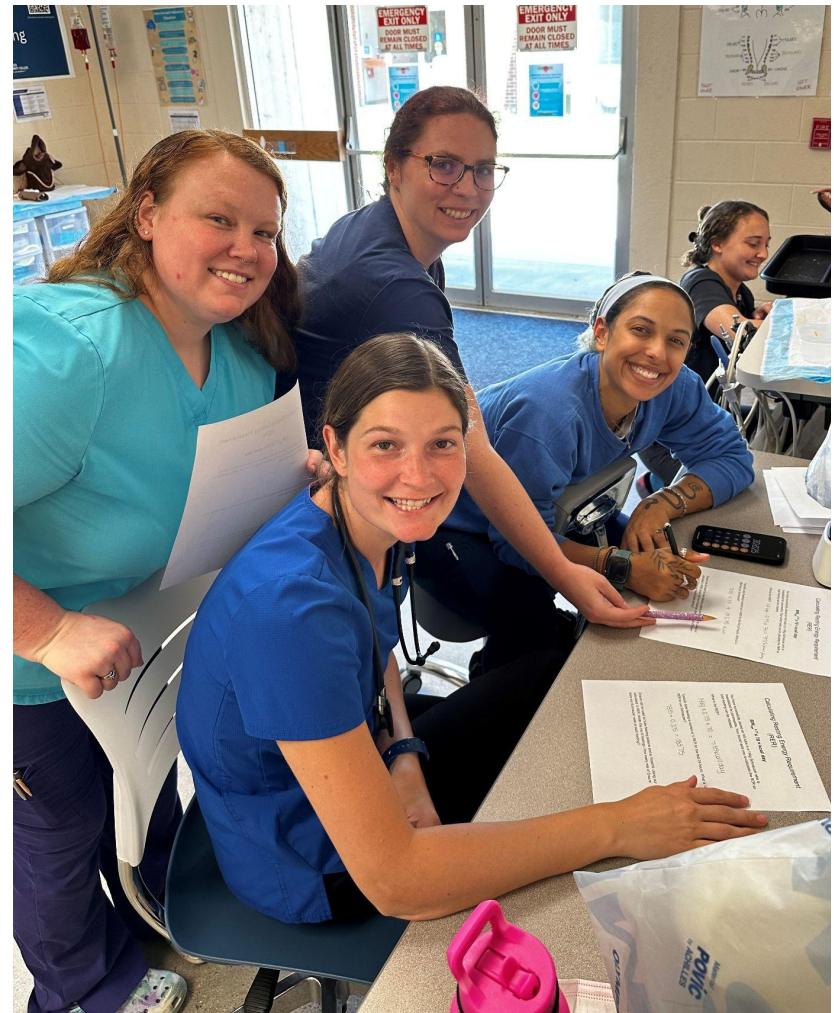
Post VET 105 Simulation Lab Survey (2025)
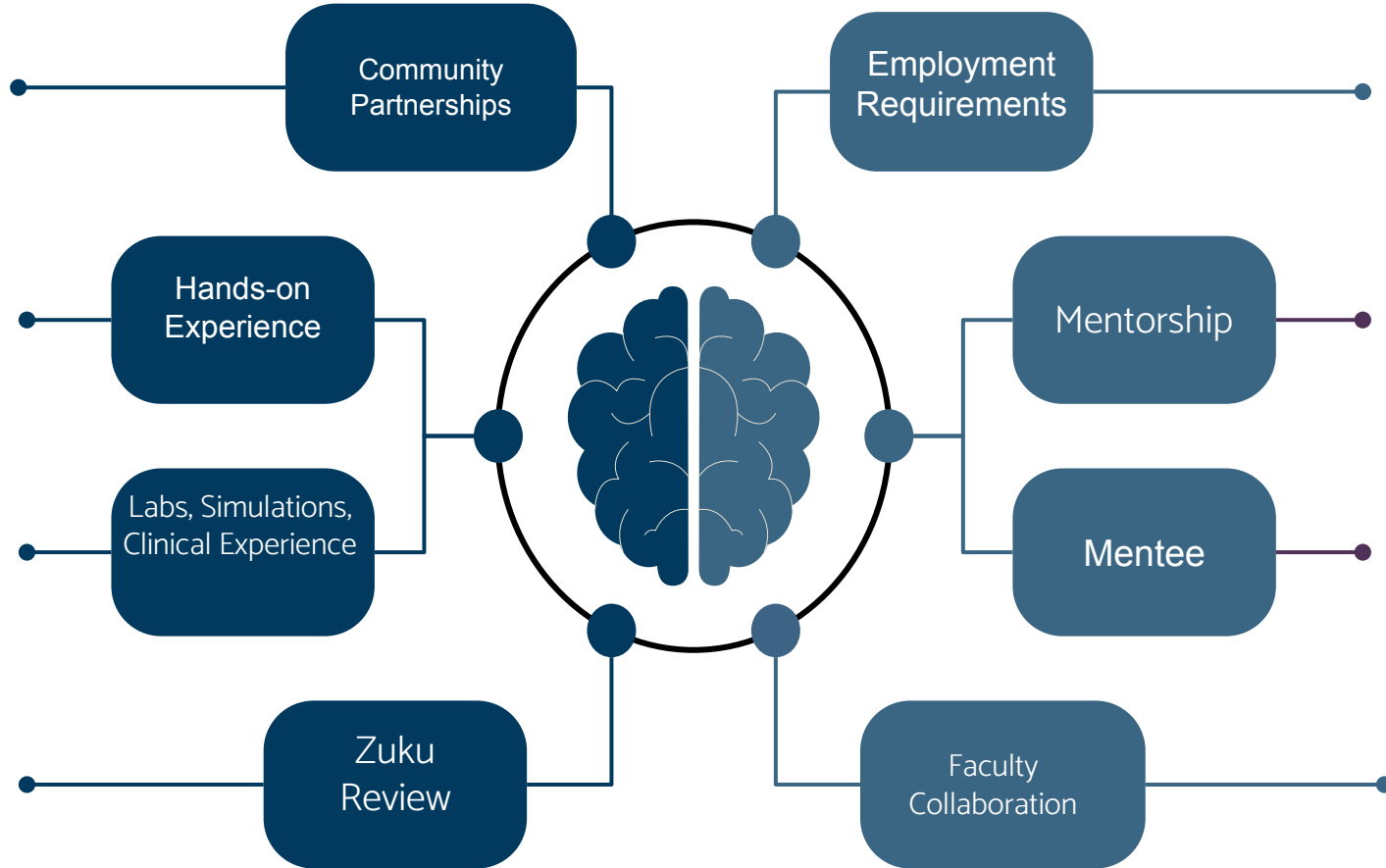
Key Elements of Success

SECTION 4

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COMMUNITY C
From here, go anywl

Strategies for Program Success

Community Partnerships

Employment Requirements

Hands-on Experience

Mentorship

Labs, Simulations, Clinical Experience

Mentee

Zuku Review

Faculty Collaboration

Q & A