

S.C. Commission on Higher Education
Notification of Change to an Academic Program or Organizational Unit
(One Program per Form)

Name of Institution: **Clemson University**

Current Name of Program (include degree designation and all concentrations, options, and tracks):

Proposed Name of Program (include degree designation and all concentrations, options, and tracks):
College of Veterinary Medicine

Briefly state the nature of the proposed change: **Subject to anticipated approval on 6 June 2023 by its Board of Trustees, Clemson University is establishing a College of Veterinary Medicine.**

Program Designation:

- | | |
|--|--|
| ☐ Certificate | ☐ Master's Degree |
| ☐ Associate's Degree | ☐ Specialist |
| ☐ Bachelor's Degree: 4 Year | ☐ Doctoral Degree: Research/Scholarship (e.g., Ph.D. and DMA) |
| ☐ Bachelor's Degree: 5 Year | ☐ Doctoral Degree: Professional Practice (e.g., Ed.D., D.N.P., J.D., PharmD., and M.D.) |

Does the program currently qualify for supplemental Palmetto Fellows and LIFE Scholarship awards?

- ☐ Yes
☐ No

Proposed Date of Implementation: **August 2023**

CIP Code (confirmed by CHE):

Site Code(s) (assigned by CHE): **50104 (Clemson University Main Campus)**

Delivery Mode:

- | | |
|--|---|
| ☐ Traditional/face-to-face
*select if less than 25% online | ☐ Distance Education |
| | ☐ 100% online |
| | ☐ Blended/hybrid (50% or more online) |
| | ☐ Blended/hybrid (25-49% online) |
| | ☐ Other distance education (explain if selected) |

Submission Date: **7 May 2023**

State the nature of change and provide a summary of the rationale for and objectives of the program. Include the number of credit hours the change entails.

Background and Need

Veterinarians are instrumental practitioners in the numerous critical contexts that include companion animal care, food safety and security, gene therapy, zoonotic disease research, and bioterrorism protection. Recent research from *Animal Health Economics* predicts a shortage of 15,000 veterinarians by 2030, placing 75 million pets at risk of no care. The need for large animal veterinarians is already being felt acutely by both government agencies and rural farmers. Such veterinarians in rural communities not only provide services—those services have dramatic economic impact in their communities.

In its November 2022 Economic Impact report, the SC Department of Agriculture placed the total annual economic impact of agribusiness in SC at \$51.8 billion comprising, inter alia, \$12.3 billion in labor income and 259,215 jobs. The USDA National Agriculture Statistics Service's 2017 Census of Agriculture Found that 64% of SC's direct farm sales are animal agriculture. This Census records 4,332 poultry farms in SC—the largest component within the agriculture sector—and some 600,000 other livestock on SC farms.

A thriving animal agriculture economy is dependent upon an adequate number of veterinarians. Veterinary workforce shortages in SC have broad animal agricultural, public health, and societal impacts.

The USDA's Veterinary Medicine Loan Repayment Program designates shortage areas, types, and priorities across the US. In South Carolina, those designated shortages for FY22 and FY23 include: (a) high priority shortages in private practice-rural area food animal medicine in Aiken, Abbeville, Anderson, Edgefield, Greenwood, Laurens, Lexington, McCormick, Newberry, Oconee, Pickens, and Saluda counties and (b) critical priority shortages in private practice-rural area food animal medicine in Cherokee, Chester, Fairfield, Kershaw, Lancaster, Spartanburg, and Union counties.

The 2022 American Veterinary Medical Association's *Pet Ownership and Demographics Sourcebook* estimates over 2.3 million pet dogs and cats in SC. Fueled by the ancient and sustained human-animal bond, the US pet industry has grown to nearly \$123.6 billion in 2021 spending according to the American Pet Products Association. The recent Morgan Stanley *Welcome to the Petriarchy* report estimates the pet care industry having an 8% topline compound annual growth rate, reaching \$275 billion in 2030, with the dominant growth sector being in pet health, and with veterinary care being the fastest growing subsegment.

As households view their pets as family (75% of households according to the 2022 AVMA *Sourcebook*), pet adoptions are rising, pet visits are increasing, pets are living longer (further increasing the companion animal patient pool), standards of care continue to increase, and people are willing to spend more on their pets. International pet care company Banfield reporting seeing 9.2% and 12.4% more juvenile dogs and cats for veterinary visits in 2020 versus 2019; on a volume basis, Banfield saw half a million more pet visits in 2020 versus 2019 in their more than 1000 veterinary hospitals across 42 states.

Colleges of Veterinary Medicine and Veterinarians

In the US, there are only 33 veterinary colleges accredited by the American Veterinary Medical Association. The AVMA estimates there are only 118,600 veterinarians nationally. As of 2021, there were 1,412 licensed veterinarians with a SC address, which implies a minimum ratio of roughly 2000 dogs and cats per veterinarian; however, this is an underestimate given that some registered veterinarians are no longer actively practicing, and others specialize in large animal care. It is estimated that only 2/3 of these 1,412 licensed veterinarians are likely to be actively practicing—and 12% of those active are over 60 years of age. Current prospects for increased veterinarian supply are, at best, muted—in the past 44 years, there have only been six new colleges of veterinary medicine in the US.

The driving factor in states' inability to produce enough veterinarians to meet their agricultural, public health, and pet owner needs is not student interest or demand or eligibility/preparation, but seats for students at veterinary colleges; the number of applicants to veterinary schools has increased year over

year reaching a record number of 10,834 applicants for 4,571 seats for the 2022 cycle. Currently, South Carolina is addressing this shortage by providing SREB contracts to SC residents for seats at existing out-of-state veterinary colleges, reducing tuition cost to in-state levels. For the class of students entering Vet School in fall 2022, SC provided contracts to 29 students accepted to UGA, 10 to Mississippi State, and 7 to Tuskegee. This program, though valuable, is not enough to meet demand. The University of Georgia CVM had 101 applications from SC resident students for the 29 SC seats in this fall's freshman class; however, 83 SC applicants fully met their admission requirements. In 2022 alone, nearly 200 South Carolina students were actively enrolled in veterinary college across more than 13 schools in the US.

Post DVM program student success is robust. 96.3% of 2021 DVM graduates reported they secured a full-time job offer or advanced education opportunity—the largest proportion since 2001. The debt-to-income ratio for 2022 graduates is 1.41, the lowest value since 2005. Mean incomes among graduates securing full-time employment is \$111,242.

We also note that the USDA's Veterinary Medicine Loan Repayment Program (VMLRP) helps qualified veterinarians offset a significant portion of the debt incurred in pursuit of their veterinary medicine degrees in return for their service in certain high-priority veterinary shortage situations. Specifically, the National Institute of Food and Agriculture (NIFA) will carry out the terms of the National Veterinary Medical Services Act (VMSA) by entering into educational loan repayment agreements with veterinarians who agree to provide veterinary services in designated shortage areas for a determined period of time. The VMLRP will pay up to \$25,000 each year towards qualified educational loans of eligible veterinarians who agree to serve in a NIFA-designated veterinarian shortage areas for a period of three years.

Distributed Model of DVM Education

Of the six new colleges of veterinary medicine established in the last 44 years in the US, all but one utilized a distributed model for clinical rotations. In this model, students learn their basic sciences, anatomy, pre-clinical skills, and communication/professional skills during their first 3 years on-campus, and then conduct their 4th year clinical learning at distributed learning sites.

In this model, Universities partner with real-world clinical collaborators to provide an immersive, cost-effective, high caseload, hands-on experience to best educate future veterinarians. Clinical collaborators can be general private practices, specialty private practices, veterinary industry, small or large animal, wildlife or exotic, governmental, non-profit, or research based. For the State and University, the financial advantages of this model are considerable, and can include: avoiding capital startup costs of several hundred million dollars by not building a large referral veterinary hospital; lower ongoing clinical operational costs; minimizing hiring, retaining, and managing a large personnel portfolio of specialists found at tertiary referral hospitals; and avoiding hospital operating costs. Partnering practitioners enjoy the opportunity to prepare future veterinarians by hosting and mentoring fourth year veterinary students during clinical experiences. To ensure a quality learning experience during the clinical year, there is extensive oversight and quality assessment provided by the College faculty, and from professionals in the students' clinic(s) of choice.

A Clemson University College of Veterinary Medicine

As a land grant university in South Carolina that is home to the State's critical extension services portfolio, Clemson University is well-suited as a home to the first college of veterinary medicine in the State. Clemson also has the strongest pre-veterinary program in the State with around 400 students. Over the past 5 years, more than half of Clemson students that applied to veterinary school were accepted—a hallmark of Clemson student preparation and success given that national application-to-seat ratios have been in the range of 3-4:1 during this time period.

The Clemson University College of Veterinary Medicine will: utilize a distributed model of education; develop a DVM curriculum based upon the philosophy of clinical immersion that recognizes medical knowledge must be developed side-by-side with clinical skills; have a special focus on recruiting qualified applicants from rural/underserved areas as well as those with livestock experience; and comprise approximately 233,000 square feet of new facilities located on Clemson University-owned land with an estimated capital cost of \$285M to be provided by the State of South Carolina. Annual operating funds

will be supported through a new allocation of \$12.5M in recurring state support plus the gradual shift of current SREB tuition support contracts as they mature (ultimately \$6.8M per year) plus tuition.

Planned College facilities would include:

- *Clinical Skills Teaching Laboratories* (Food Animal Teaching Center, Equine Teaching Center, Small Animal Skill Laboratory)- clinical skills training, using live animals and models, encompasses skills such as physical examinations and other routine procedures, proper animal handling procedures such as restraint techniques and positioning of animals. Food Animal Teaching Center to be located at the Clemson LaMaster Dairy with the Equine Teaching Center adjacent to the Clemson Equine Farm property facilitating access to existing Clemson herds and flocks.
- *Professional Skills Laboratory*- An innovative laboratory will help students develop effective communication techniques and understand professional ethics, basic economics and other topics.
- *Anatomy & Microscopy Laboratories*
- *Lecture Hall and Classrooms*
- *Surgical & Procedures Training Laboratories*- Partnership with local shelters and rescue groups to perform spays, neuters and other basic needed surgeries for the animals they take in to prepare them for adoption is envisioned for surgical training of students.
- *Administrative and Faculty Offices*
- *Research Laboratories and Associated Offices*
- *Large Animal Ambulatory Service Home*

The proposed College would also leverage existing facilities such as the Clemson Veterinary Diagnostic Center in Columbia, which provides capabilities in necropsy, histopathology, bacteriology, virology, and serology as an integral part of a disease surveillance system that helps assure a safe and adequate food supply and protects the public health and welfare of South Carolina citizens.

Planning for the proposed College anticipates and supports an expected 80 students per incoming class, and capacity for up to 125 students per incoming class. The prospective timeline includes enrolling the College's first class of students in Fall 2026 and awarding its first DVM degrees in spring 2030.

Roadmap, Timeline, and Milestones

While we propose a Clemson University College of Veterinary Medicine to meet a dire need after careful data-guided study, its execution remains ambitious and on a rigid and tight timetable given the necessary and complex coordination between funding provided by the State of South Carolina, hiring, program development, accreditation, and construction.

The projected timeline with key milestones in implementing the proposed College is shown on the next page. Letters of endorsement from the South Carolina Farm Bureau Federation and the South Carolina Association of Veterinarians regarding the proposed College accompany this proposal.

Fiscal Year	Construction Milestone	Accreditation Milestone	Student Milestone	SREB Slot Reallocation	Recurring Funding	One-Time Funding
22/23	Comprehensive feasibility study on project budget, timing and site selection;- Engage Architect / Engineering firms and Construction Manager at Risk to provide schematic designs of facilities	Detailed implementation and Program plan		\$0	\$0	\$10,000,000
23/24	Finish Schematic Design (Fall 2023) and complete Construction Design documents(Spring 2024); Begin sitework	Hire Founding Dean (Summer 2023), set curriculum, begin preparation for letter of reasonable assurance application and site visits		\$0	\$2,500,000	\$45,466,000
24/25	Begin Construction - Teaching & Clinical Space (Fall 2024)	Obtain Letter of Reasonable Assurance (Winter 2025)	Recruit 1st class (Spring 2025); Applications (Summer 2025)	\$0	\$7,500,000	\$175,800,000
25/26	Begin Construction Research Space (Fall 2025)		Accept 1st class (Winter 2026)	\$0	\$10,000,000	\$57,400,000
26/27	Complete Construction Teaching&Clinical by beginning of Fall 2026 semester	Provisional Accreditation upon enrolling first class (Aug. 2026)	Enroll 1st class (Aug. 2026)	\$1,700,000	\$12,500,000	\$0
27/28	End construction	Provision Accreditation, report data, site visits	Enroll 2nd class	\$3,400,000	\$12,500,000	\$0
28/29	Occupy and Maintain	Provision Accreditation, report data, site visits	Enroll 3rd class	\$5,100,000	\$12,500,000	\$0
29/30	Occupy and Maintain	Provisional Accreditation with application for full; award first DVM degrees (May 2030)	Enroll 4th class - Award 1st DVM (May 2030)	\$6,800,000	\$12,500,000	\$0
30/31	Occupy and Maintain	Full accreditation		\$6,800,000	\$12,500,000	\$0

List the courses required for new concentrations, options, or tracks (prefix, number, title, and credit hours).

Clemson University anticipates submitting a new program proposal for a DVM Veterinary Medicine in the near future, but at this time is first seeking to establish the College of Veterinary Medicine as that future program's home.

Provide information about major, general education, and elective course requirements, and the number of credit hours required for graduation, if changing.

N/A

If the program is adding or moving to blended or online delivery: provide a brief description of resources available to offer the program online (IT support, network capacity, and instructional support/availability for students, faculty qualifications to teach online, etc.) and the support provided to faculty to deliver and students to complete the program online; and state whether program will be covered by the State Authorization Reciprocity Agreement or discuss plans to receive approval from other states as required.

N/A



**South Carolina
Farm Bureau Federation**

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December 15, 2022

The Honorable Henry McMaster
State House
1100 Gervais Street
Columbia, SC 29201

Dear Governor McMaster,

The South Carolina Farm Bureau (SCFB) has for many years been concerned about the shortage of veterinarians available in our state's rural communities and available for SC livestock farmers. The growing shortage of veterinarians throughout South Carolina has now expanded into companion animal practices even in large cities. This expansion of veterinarian shortages to urban areas has only made the difficulty our members face getting sufficient veterinary care for livestock and pets in rural areas that much worse.

During the voting delegate session at our Annual Convention earlier this month, the delegates approved official SCFB policy supporting the establishment of a College of Veterinary Medicine at Clemson University. In addition, our policy supports state funding for construction and operation of this new College.

We look forward to working with you and the state Legislature on this issue in the coming year.

Sincerely,

Harry Ott
President, South Carolina Farm Bureau Federation



December 15, 2022

The Honorable Henry McMaster
State House
1100 Gervais Street
Columbia, SC 20201

Dear Governor McMaster,

The South Carolina Association of Veterinarians (SCAV) was established in 1911 as an affiliate of the American Association of Veterinarians (AAVP) as the leading advocate for the veterinary profession in South Carolina.

Our 1,045 veterinarian members are universally conveying to us their concerns over a growing shortage of veterinarians available to work in their practices. The number of open positions for veterinarians to work with companion animals and with shelters is unprecedented and growing worse each year. South Carolina is not alone in facing an acute, growing shortage of veterinarians. A 2019 study projects a national shortage of 15,000 veterinarians by 2030 potentially resulting in as many as 75 million pets without access to veterinary care in this country.

The SCAV Board of Directors recently adopted a resolution supporting the establishment of a College of Veterinary Medicine at Clemson University as an essential next step to address this growing crisis in our state. The SCAV Board of Directors was especially supportive of the distributive model of veterinary education proposed for a Clemson University College of Veterinary Medicine.

SCAV appreciates the concern and support for animals you have shown throughout your career. We urge you to support creation of a College of Veterinary Medicine at Clemson University along with the necessary state funding for the project as the best way to address this growing crisis affecting the quality of life for the citizens of our state.

Sincerely,

Mike Ferguson

Mike Ferguson, DVM
President, SCAV