



DEPARTMENT OF
HIGHER EDUCATION &
WORKFORCE DEVELOPMENT

New Program Report

Date Submitted:

04/22/2021

Institution

University of Missouri-Columbia

Site Information

Implementation Date:

8/1/2021 12:00:00 AM

Added Site(s):

Selected Site(s):

University of Missouri-Columbia, 105 Jesse Hall, Columbia, MO, 65211

CIP Information

CIP Code:

018301

CIP Description:

A program that prepares individuals, under the supervision of veterinarians, laboratory animal specialists, and zoological professionals, to provide patient management, care, and clinical procedures assistance as well as owner communication. Includes instruction in animal nursing care, animal health and nutrition, animal handling, clinical pathology, radiology, anesthesiology, dental prophylaxis, surgical assisting, clinical laboratory procedures, office administration skills, patient and owner management, and applicable standards and regulations.

CIP Program Title:

Veterinary/Animal Health Technology/Technician and Veterinary Assistant

Institution Program Title:

Veterinary Technology

Degree Level/Type

Degree Level:

Bachelor's Degree

Degree Type:

Bachelor of Science

Options Added:

Collaborative Program:

N

Mode of Delivery

Current Mode of Delivery

Online

Student Preparation



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Special Admissions Procedure or Student Qualifications required:

An articulation agreement between the UM system and prospective student's previous institution will have to be established to facilitate a proper transfer of associate-level credits to apply toward their baccalaureate degree. Therefore, each student's path to earning the BSVT may be slightly different, and articulation agreements between community colleges and the MU CVM will be established to streamline this process for students.

Specific Population Characteristics to be served:

The BSVT target population is registered veterinary technicians. These potential students will need to have graduated from an AVMA-accredited associate-level veterinary technology program and completed all the AVMA-required technical skills. In addition to graduating from a veterinary technology program, these applicants must also have passed their national licensure exam, VTNE (Veterinary Technology National Exam), and therefore be credentialed to work in the profession.

Faculty Characteristics

Special Requirements for Assignment of Teaching for this Degree/Certificate:

We do not plan to have additional requirements for instructors above the master's degree required by Mizzou's Office of eLearning for online undergraduate programs. However, we do plan to offer preference toward instructors that have knowledge of the veterinary medical profession and are either veterinarians or registered veterinary technicians who can refine their courses to keep them as clinically practical as possible.

Estimate Percentage of Credit Hours that will be assigned to full time faculty:

27%

Expectations for professional activities, special student contact, teaching/learning innovation:

All DVM and RVT instructors are required to keep up their continuing education hours needed for state licensure, which will ensure that they are staying up to date on clinically relevant information.

Student Enrollment Projections Year One-Five

| | | | |
|--------|---------------|---------------|----------------------------|
| Year 1 | Full Time: 13 | Part Time: 12 | |
| Year 2 | Full Time: 25 | Part Time: 25 | |
| Year 3 | Full Time: 32 | Part Time: 42 | Number of Graduates: 12 |
| Year 4 | Full Time: 41 | Part Time: 63 | |
| Year 5 | Full Time: 50 | Part Time: 80 | Number of Graduates: 32 |

Percentage Statement:

n/a

Program Accreditation

Institutional Plans for Accreditation:

Specific program accreditation is not necessary. The University of Missouri College of Veterinary Medicine is currently fully accredited by the American Veterinary Medical Association (AVMA). The AVMA does have an accrediting body that evaluates associate-level and 4-year veterinary technology programs, but they do not assess bachelor's completion programs.

Program Structure



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Total Credits:

120

Residency Requirements:

n/a

General Education Total Credits:

36

Major Requirements Total Credits:

40

Course(s) Added

| COURSE NUMBER | CREDITS | COURSE TITLE |
|---------------|---------|--|
| | 3 | Biomedical Comparative Physiology |
| | 3 | Elements of Comparative Anatomy |
| | 3 | Animal Welfare & Ethics |
| | 2 | Veterinary Cytology |
| | 3 | Veterinary Business & Practice Management |
| | 2 | Domestic Animal Behavior |
| | 3 | Comparative Pharmacology |
| | 3 | Leadership & Communication in Veterinary Technology (WI) |

Free Elective Credits:

18

Internship or other Capstone Experience:

None.

Assurances

I certify that the program is clearly within the institution's CBHE-approved mission. The proposed new program must be consistent with the institutional mission, as well as the principal planning priorities of the public institution, as set forth in the public institution's approved plan or plan update.

I certify that the program will be offered within the proposing institution's main campus, CBHE-approved service region or CBHE-approved off-site location.

I certify that the program will not unnecessarily duplicate an existing program within the geographically applicable area.

I certify that the program will build upon existing programs and faculty expertise.

I certify that the program can be launched with minimal expense and falls within the institution's current operating budget.

I certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful. Institutions' decision to implement a program shall be based upon demand and/or need for the program in terms of meeting present and future needs of the locale, state, and nation based upon societal needs, and/or student needs.

Contact Information



DEPARTMENT OF
HIGHER EDUCATION &
WORKFORCE DEVELOPMENT

New Program Report

First and Last Name: STEVEN
CHAFFIN

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Phone: 573-884-3360

5.C. Program Structure

5.C.1. Program Structure Form

1. Total Credits Required for Graduation: 120 minimum
Most students enrolling in the BSVT program will transfer between 39-43 veterinary technology specific credits dependent on their AAS program. They will also have variable general education credits transfer.
2. Residence requirements, if any: None
3. General education
 - a. Total general education credits: 36

| Course Area | Hrs |
|--|-----|
| Math & Quantitative Reasoning | 3 |
| English Exposition & Argumentation | 3 |
| Biological, Physical, & Math Sciences (must include two disciplines and at least one lab) | 9 |
| Humanities & Fine Arts (must include at least 2 disciplines) | 9 |
| Social & Behavioral Sciences (must include two disciplines and a civics course) | 9 |
| First Writing Intensive Course | 3 |

4. Major Requirements
 - a. Total credits specific to degree: 40

Required Courses (specific course or distribution area and credit hours): 22

| Course | Hrs | Course | Hrs |
|--|-----|-----------------------------------|-----|
| Leadership & Communication in Veterinary Technology (WI) | 3 | Biomedical Comparative Physiology | 3 |
| Elements of Comparative Anatomy | 3 | Domestic Animal Behavior | 2 |
| Comparative Pharmacology | 3 | Veterinary Cytology | 2 |
| Veterinary Business & Practice Management | 3 | Animal Welfare & Ethics | 3 |

5. BSVT Elective credits

a. Total elective credits: 18

- i. Veterinary Medical Terminology (1)
- ii. Farm Animal Sanitation & Disease (3)
- iii. Small Animal Physical Rehabilitation (3)
- iv. Veterinary Nursing for Lab Animal & Research (3)
- v. Fundamentals of Small Animal ECC (3)
- vi. Clinical Veterinary Neurology (3)
- vii. Principles of Toxicology (3)
- viii. Canine & Feline Nutrition (3)
- ix. Veterinary Hematology & Chemistry (3)
- x. Introduction to Equine Clinical Practice (3)
- xi. Intro to Veterinary Clinical Parasitology (2)
- xii. Equine Critical Care & Nursing (3)

6. Requirement for thesis, internship, or other capstone experience: None.

7. Any unique features such as interdepartmental cooperation:

This program will be taught by members of all three academic departments within the College of Veterinary Medicine including Biomedical Sciences, Veterinary Pathobiology, and Veterinary Medicine & Surgery as well as several adjunct instructors from the state of Missouri, and across the US. The College of Veterinary Medicine is excited for this interdepartmental collaboration which is noted in the letters of support from all three department chairs.

New Degree Program Proposal:

**Bachelor of Science in
Veterinary Technology**

University of Missouri – Columbia

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Executive Summary

The Bachelor of Science in Veterinary Technology (BSVT) online degree plan is specifically designed to meet the needs of practicing registered veterinary technicians (RVTs) who currently have few options for advanced degrees in their specific field. This RVT-to-BSVT program offers the advantages of a 4-year institution and instruction from the University of Missouri College of Veterinary Medicine. Simultaneously, the online format allows access to an asynchronous, COVID-friendly, distance-learning environment that is more financially feasible for non-traditional students.

The BSVT provides an extra credential that can amplify career paths and leverage salary increases for new and existing veterinary technicians, all while enhancing their professional knowledge base and increasing job satisfaction, job mobility, and the quality of patient care and outcomes. Graduates of the RVT-to-BSVT program will demonstrate the necessary advanced competencies to function as veterinary team leaders and to excel as providers, designers, and coordinators of patient care in their current veterinary practice.

The veterinary community's reaction to this degree proposal has been very positive. In addition to letters from prospective employers and the development of articulation agreements with community colleges, MU's College of Veterinary Medicine received a generous donation of \$180,000 specifically for the launching of the BSVT. This will enable the program to launch from a sound financial position with substantial opportunity for enrollment growth and net revenue generation.

As a final point, the College of Veterinary Medicine will be the first CVM to offer this RVT-to-BSVT degree entirely online and is passionate about developing and delivering this program here at Mizzou. It will be a source of opportunity nationwide for veterinary technicians practicing in the 33 states where no bachelor option is available. The RVT-to-BSVT degree plan is a crucial program that highlights the demand for access to CVM-led veterinary technician education. We aim to raise awareness across the nation of the value of well-educated animal caretakers and recognize the amazing profession of veterinary technology.

1. Introduction

The primary objective of the Bachelor of Science in Veterinary Technology (BSVT) is to further the education of practicing veterinary technicians and to prepare them for additional successes by providing access to instruction at a nationally accredited college of veterinary medicine, without the need to relocate or interrupt employment. Historically, the standard education for veterinary technicians is a two-year associate's (AAS) program where the primary emphasis is on learning and performing technical skills. (Appendix B). The American Veterinary Medical Association (AVMA) has a required skill list that each student must complete to graduate from an AAS-level veterinary technology program successfully. Following their graduation, veterinary technicians must pass the Veterinary Technician National Exam (VTNE) and become licensed in their specific state as a registered/certified veterinary technician. Once these initial steps are completed, technicians' options for continuing their education, acquiring new skills to diversify their career path, or advancing within the profession are limited. The goal of the RVT-to-BSVT program is to emphasize the knowledge behind the skills while also improving communication and leadership capabilities to create highly educated and professionally competent support staff for our veterinary medicine practices within the state of Missouri and beyond.

The RVT to BSVT program will establish Missouri as an industry leader in advanced veterinary technician education. One of the most exciting aspects of this endeavor is that we will be the first institution within the state of Missouri to offer a bachelor's degree in veterinary technology and the first college of veterinary medicine in the nation to offer an RVT-to-BSVT program entirely online. There are currently four veterinary medicine colleges that offer veterinary technology education, and they all offer 4-year face-to-face bachelor's degree programs.¹ These programs typically take a maximum enrollment of 25-40 students, due to space needed for hands-on instruction and in accordance with AVMA-CVTEA's requirements for teacher-to-student ratios when working with live animals. The RVT-to-BSVT degree plan will not be limited by these constraints and can offer the roughly 32,000 students currently enrolled in associate-level vet tech programs, and the more than 100,000 practicing veterinary technicians' access to quality education to advance their career while maintaining their employment.^{10,9} In preparation for this RVT-to-BSVT degree development here at Mizzou, we joined a site visit at Purdue's Veterinary Nursing Program and their guidance proved invaluable in our degree planning.

The new BSVT degree will expand the knowledge of veterinary technicians in private veterinary practices and can facilitate career advancement, including practice leadership, animal hospital management, and complement the experience needed to become a veterinary technician specialist (VTS). It will also open doors into human and animal pharmaceutical sales, research laboratories, and employment with the

military or government regulatory agencies. If interested veterinary technicians choose to stay in private practice, a BSVT degree will allow for a more well-rounded education that can increase self-confidence, improve client communication, elevate patient care, and advance pet nursing competency, leading toward increased job satisfaction and hospital economic growth. Lastly, we can extrapolate from human medicine that these graduates may have more favorable clinical outcomes than associate-trained veterinary technicians. The American Association of the Colleges of Nursing (AACN) has collected extensive research that indicates that higher nursing education makes a significant difference in clinical outcomes.

Offering an RVT-to-BSVT degree at MU will reveal tremendous potential for future veterinary technology educational opportunities within the College of Veterinary Medicine. The BSVT will highlight numerous options for certificate programs in various specialties offered at the University of Missouri Veterinary Health Center. These certificates will provide opportunity for veterinary technicians who decline to pursue the full BSVT degree but aspire to grow their knowledge base in specific veterinary specialties or fill gaps that may extend from their associate-level training. A bachelor's degree in veterinary technology will also be an important stepping stone for all veterinary technicians interested in pursuing MU's Master's in Biomedical Sciences with a Veterinary Science Emphasis program, a popular degree offered through the CVM. Additionally, most BSVT students will likely be working in the profession and our goal is for this entire program to be approved by RACE (Registry of Approved Continuing Education) and allow technicians to claim their bachelor degree coursework as their yearly continuing education needed for state licensure.

Conceptual discussions are underway at a national level, led by the American Association of Veterinary State Boards (AAVSB), related to adding a mid-tier veterinary care professional (similar to a human physician's assistant) that will require masters-level training as well as an additional clinical internship at a college of veterinary medicine. If this concept comes to fruition, all veterinary technicians interested in this career path must first attain a bachelor's degree that the RVT-to-BSVT program can provide.

As you can see, 2021 is an exciting time within the veterinary technology community as discussions concerning advanced degrees and the addition of a 6-year degree path, scope of practice distinctions between 2 & 4-year degrees, and title unification are being debated by multiple national groups, including the American Association of Veterinary State Boards (AAVSB), the Association of American Veterinary Medical Colleges (AAVMC), the National Association of Veterinary Technicians in America (NAVTA), the Veterinary Innovation Council (VIC), American Veterinary Medical Association (AVMA), National Association of Veterinary Technicians in America (NAVTA), and the Veterinary Nurse Initiative (VNI). These groups are all working to create a more varied career path for veterinary technicians that would afford upward mobility, greater depth of proficiency, better pay, and hopefully improved job

satisfaction. Consequently, this advanced education will upgrade support staff for practicing veterinarians and enhance patient care for America's pet population.

Although the UM system does not currently offer a degree plan in veterinary technology quite a few courses have been explicitly developed for undergraduate veterinary education within MU-CVM's Online Programs. Therefore, to build the RVT-to-BSVT degree plan, we will not have to start from scratch, as the proposed curriculum only includes four new courses. This degree plan aims to provide a pathway to a baccalaureate degree that will permit transfer of previous veterinary technology education and finish with a credential that is specific for student's chosen profession. We developed the BSVT curriculum using guidelines from the AVMA for bachelor-level degrees and recommendations outlined by the Veterinary Innovation Council (VIC) in their 2-yr. vs. 4-yr Education Project Report, as well as a large volume of feedback from RVT and DVM's within MU's Veterinary Health Center and private practices across the state.

According to the AVMA, Missouri is one of 33 states in the US that do not offer an in-state bachelor's degree in veterinary technology: AL, AR, CO, CT, DE, HI, ID, IL, IA, KS, MD, MN, MO, MT, NE NV, NH, NJ, NM, NC, OH, OK, OR, RI, SC, SD, UT, VT, VA, WA, WV, WI, & WY. Of these states, the Bureau of Labor and Statistics' Occupational Statistics notes that Illinois is a high demand state, and Colorado, North Carolina, Maryland, and Minnesota are all states with the highest concentration of jobs and location quotients for the occupation of veterinary technology, which is encouraging for out-of-state interest in this program.⁹ Noted in attached letters of support (Appendix C), several out-of-state veterinary technician programs support our proposed plan and have students currently interested in enrolling.

The CVM's BSVT program also aligns with the AVMA's task force on veterinary technology recommendations that COE-accredited veterinary colleges should develop or host accredited programs in veterinary technology. The College of Veterinary Medicine at MU is passionate about creating this online RVT-to-BSVT degree plan to be a nationwide source of opportunity for veterinary technicians.

If there are any questions, please contact Cindy Cravens, DVM at: W103 Veterinary Medicine Building, by phone at (573) 884-8454, or by email at ccfx3@umsystem.edu.

2. University Mission & Program Analysis

2.A. Alignment with University Mission & Goals

The UM System has set a vision to "advance the opportunities for success and well-being for Missouri, our nation and the world through transformative teaching, research, innovation, engagement and inclusion." The RVT-to-BSVT program at the CVM will advance opportunities for success and well-being of veterinary technicians in the state of Missouri and nationwide, secondary to providing a pathway to a

baccalaureate degree that is currently only offered at three other online programs (St. Petersburg College, Tarleton State University, and Penn Foster College). Providing this route for completion of a bachelor's degree that is clinically relevant and specific to the needs of non-traditional, working veterinary technicians will positively impact enrollment growth for MU, as these students will all be new students for the university.

The strategic priorities at the University of Missouri are in direct alignment with the RVT-to-BSVT program, especially regarding student success. Through this program, we can encourage and support faculty who are committed to excellent teaching as a critical component of student success. As educators, we have a responsibility to enhance learning experiences and be thoughtful stewards of resources. The MU campus houses an accredited college of veterinary medicine with many world-renown veterinary educators. However, veterinary paraprofessionals have little to no access to this quality education due to lack of a pathway for credit transfer, or degree plans specific to the veterinary technology profession. This gap in educational opportunities for veterinary technicians at the CVM is an inefficient use of campus resources that could provide superior advanced veterinary technology education.

An asynchronous, online RVT-to-BSVT degree can increase flexible paths to learning and degree completion by allowing RVT's to advance their education while continuing to work in the profession. This advanced education can also increase professional development and improve career outcomes for practicing veterinary technicians who desire leverage for higher salaries and enhanced training in soft skills specific to successful veterinary medical care and leadership.

In addition to the need for a bachelor's program to advance registered veterinary technicians' education, this degree program may become a stepping stone to a master's level veterinary professional that includes additional licensure. A NAVTA study from March 2020 revealed that 80% out of 703 veterinary technician respondents are interested in developing a conceptual APVN (Advanced Practice Veterinary Nurse) credential through a veterinary nursing graduate program at a college of veterinary medicine.¹⁶ Discussions will continue on a national level over the establishment and logistics of such a plan and its required internships, credentialing exam, and scope of practice. The proposition of creating a new credentialed veterinary professional is in response to the chronic issue that has troubled the profession for over a decade: too few veterinarians and veterinary technicians to meet the growing demands of pet owners. This BSVT program will be the start of establishing infrastructure at the University of Missouri College of Veterinary Medicine to build upon to meet the rising demands within the veterinary health care community. Therefore, the RVT-to-BSVT program can emphasize areas of broader impacts to promote education, outreach, and benefits to society regarding access to quality veterinary care.

Regardless of the advanced practice credential in veterinary technology, the College of Veterinary Medicine's Online Programs already offers a master's program in Biomedical Sciences with an emphasis in Veterinary Sciences. Current NAVTA president, Ken Yagi, is a graduate of this master's program, and it is quite popular with veterinary technicians including several of our BSVT instructors and veterinary technicians employed at MU's Veterinary Health Center. Offering an RVT-to-BSVT degree plan, whose graduates can then enroll in an established master's degree program will optimize organizational structures to achieve teaching and engagement objectives at the College of Veterinary Medicine.

Evaluation of the veterinary profession show that societal demands continue to evolve; therefore, it is necessary to train a diverse workforce of exceptional animal health professionals to meet these needs. Developing the RVT-to-BSVT program will create more highly skilled veterinary technicians that can provide superior service for the nation's veterinary community, livestock producers, pet owners, and veterinary health corporations to contribute to economic growth. Additionally, just as human nurses improved their clinical outcomes with advanced degree training in human nursing care, we foresee that the same could be true for veterinary technicians and their ability to care for their animal patients. In the March 2019 issue of *The Joint Commission Journal of Quality and Patient Safety*, Dr. Maya Djukic and her colleagues from New York University released details from a new study, which found that baccalaureate-prepared RNs reported being significantly better prepared than associate degree nurses on 12 out of 16 areas related to quality and safety, including evidence-based practice, data analysis, and project implementation.

According to the Missouri Veterinary Medical Board, there are currently 1,273 licensed veterinary technicians in the state. This number is expected to grow considerably, as Moberly Area Community College's (MACC) new veterinary technology program will begin producing 32 graduates a year starting in the spring of 2023. An articulation agreement has been established between the College of Veterinary Medicine and MACC to create a uniform transfer into MU's RVT-to-BSVT program following MACC-AAS graduation (Appendix L). In addition, an MOU creating a partnership has been signed by both institutions to facilitate AAS vet tech students to participate in hands-on veterinary technician training at MU's Veterinary Health Center while enrolled at MACC, providing economic workforce development for central Missouri and meeting the state's need for licensed veterinary technicians. In return MACC will encourage their AAS-VT graduates to enroll in the RVT-to-BSVT program. This degree plan can serve all veterinary technicians by being a flagship of the future, benefitting the increasing number of veterinary technicians who elect to pursue advanced degrees.

Becoming the first college of veterinary medicine to offer an RVT-to-BSVT degree plan is an exciting endeavor. We aspire to be a national leader in the profession and

become the school of choice for outstanding veterinary technician education at an advanced level. These aspirations are in direct alignment with the university policy of enhancing the development of individuals and the well-being of society, and in this case, the well-being of society's four-legged family members.

2.B. Duplication & Collaboration within Campus, Across System

Duplication is not anticipated, as there are currently no bachelor's degrees available in veterinary technology through the UM system. Furthermore, there are no bachelor-level degrees offered in the state of Missouri in veterinary technology. There are 25 bachelors' in veterinary technology degrees offered in the nation, but only three are entirely online completion degrees.

MU's College of Veterinary Medicine Online Programs currently offers an undergraduate certificate in veterinary sciences. This certificate is primarily obtained by pre-veterinary undergraduate students. There is no expectation for competition between these programs due to differing student target audiences.

At the college level, the BSVT will generate and enhance collaboration across departments within the college of veterinary medicine as our program includes instructors from veterinary pathobiology, veterinary medicine and surgery, and biomedical sciences.

3. Business-Related Criteria & Justification

3.A. Market Analysis

3.A.1. Rationale and Workforce Demand for the Program

There is an obligation within the veterinary community to have knowledgeable nursing staff for animal patients, mirroring what is available in human health care. Veterinary technicians were listed among the top 20 fastest growing occupations in Missouri from 2017-2019. However, there is a constant need for more well-trained applicants for veterinary technology, animal laboratory technology, pharmaceutical and animal health industry, veterinary practice managers, and veterinary technician specialists. According to the Bureau of Labor Statistics, veterinary technicians occupy a high-growth career. Our latest market analysis shows occupational growth projections for 2020-2030 at both national and regional levels to be above average at twenty percent nationally and nineteen percent regionally (Appendix J). The BLS' projected a nineteen percent rise in openings for vet techs across the country between 2018 and 2028, which is nearly triple the average growth anticipated across all occupations during that same time (7 percent). According to data from www.projectionscentral.com for 2016-2026, veterinary technicians/technologists will have 10,700 average annual openings.

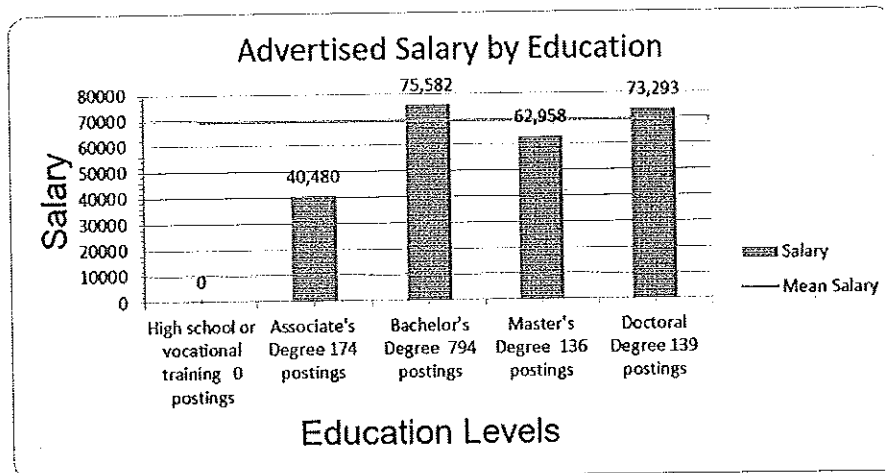
Additionally, the Bureau of Labor and Statics reported in 2018 that there are 106,680 veterinary technicians in the United States. According to the AVMA (American Veterinary Medical Association), there are 8,000 more new graduates every year. The latest Committee on Veterinary Technology Education & Activities (CVTEA) Vet Tech Director Survey reports that there are 34,677 students currently enrolled in an AAS vet tech program.¹⁰ But unfortunately, the 2016 NAVTA (National Association of Veterinary Technicians in America) Demographic Survey indicated 45% of respondents had left the vet tech profession due to low income and lack of career advancement. When evaluating this lack of job satisfaction in veterinary technology, the survey noted "there is a known shortage of credentialed vet techs, and the difficulty in finding qualified personnel to fill positions is a major complaint by veterinary practices."

There is plenty of data that demonstrates the need for veterinary technicians both regionally and nationally. But the biggest question that faces the profession of veterinary technology today: how can we enhance job satisfaction to improve retention? The NAVTA survey was specific in 3 reasons why so many licensed veterinary technicians are leaving the profession: minimal utilization of nursing skills, lack of options for career variance and upward mobility, and low salaries.

Part of what makes the RVT-to-BSVT program so unique is that we can elevate our graduate's knowledge base and proficiencies crucial to veterinary practice. This advanced credential can open doors for leadership opportunities within their current employment place or expand into other genres of the animal health fields. Additionally, we plan to include in our RVT-to-BSVT program marketing plan outreach to the DVM community to provide education on proper technician utilization and the many benefits of having highly-trained support staff for their veterinary clinics.

Lastly, research performed here at the University of Missouri College of Veterinary Medicine in 2019 would indicate that obtaining a bachelor's degree in veterinary technology would be an excellent investment as it would positively influence veterinary technician's salaries. This same article discussed that "online access to degree-granting institutions allows more opportunities for veterinary technicians to obtain advanced degrees." Additional education can increase the veterinary technician's value within the veterinary medicine community and improve salaries and skill utilization.

Salary by Education for Those with Veterinary Technology Bachelor's Degrees Using Advertised Job Postings November 1, 2018 to October 31, 2019



Earning an advanced degree, such as a bachelor's degree, improves job retention rate and allows graduates the opportunity to pursue varied career paths.⁹ The veterinary field is continuously advancing, developing new systems, and discovering new treatment methods. Veterinary technicians are encouraged to become lifelong learners to offer better patient care and improve animal healthcare throughout their community. However, based on the current market analysis, there are very few options nationally and zero regionally that can offer this advanced education (Appendix J). The market evaluations performed both in 2019 and 2020 for this program showed zero listings for job listings that were specific for a bachelor degree in veterinary technology. However, we suspect that this is due to a lack of qualified applicants in the region at this time, and expect that the job market will respond to an influx of higher trained veterinary technicians following program establishment. It is important to offer these paraprofessionals options to increase their salary or change their career outlook, so we retain them in the profession and avoid additional workforce shortages in veterinary medical practices where these animal caretakers are in high demand.

Affordability is also paramount for this program's success when targeting non-traditional students who often will be supporting families and a population of workers that are consistently associated with low wages. According to our Burning Glass Market Analysis, CVM's current tuition and fees are quite competitive compared to the two major online competitors. It is important to note that none of 3 online RVT-to-BSVT programs will be housed in a college of veterinary medicine. The tuition rate/credit hour for non-resident, distance-learning, undergraduate programs at MU-CVM is \$470/cr for a 40-credit BSVT program, St. Petersburg College is \$425.79/cr for a 41-credit BAS program, and Tarleton St. University is \$595.65/cr for a 40-credit BAS program. (Appendix I)

As well as evaluating job markets for BSVT graduates and affordability for perspective BSVT students, we wanted to survey practicing DVM's that employ veterinary technicians at their clinics. To evaluate employer demand and support for an RVT-to-BSVT program, we reached out to referring veterinarians using MU's VHC referral DVM list serve. Our survey had 50 practicing veterinarians that responded, and of those respondents, 69% practiced in the state of Missouri. The full survey can be viewed in Appendix K.

Two specific responses that were encouraging of the BSVT program development are listed here:

| | Yes | Maybe | No |
|---|--------|--------|--------|
| Would you support your RVT/CVT employees furthering their education by pursuing a bachelor's degree if totally online and asynchronous, so they could continue to work while in school? | 83.67% | 8.16% | 8.16% |
| Would you offer any financial support for interested employees if most courses were RACE certified and eligible for use as yearly CE? | 38.78% | 48.98% | 12.24% |

We have also had several regional and national industry leaders in veterinary medicine step forward with support for an RVT-to-BSVT program. We are thrilled to include endorsements from KC Animal Health Corridor, BioNexus KC, and VCA (Veterinary Clinics of America). Including support of such wide-reaching corporate partners that employ many veterinary technicians regionally and nationally will promote program success. (Appendix C)

The BSVT degree program has received positive feedback and is generating a dramatic amount of enthusiasm across administration here at the CVM, as well as among AAS-VT programs, state organizations, and animal health industry partners. The numerous letters of support show the tremendous backing for this program is wide-ranging and abundant. These letters (Appendix C) provide an example of just how large this program's administrative backing is.

3.A.2 Student Demand for the Program

Twenty-five institutions currently offer a bachelor's degree in veterinary technology, and according to the AVMA CVTEA in 2019-2020, there were 1936 students enrolled in these programs. Of these 25 bachelor-level programs, most require some or all face-to-face coursework; there are only three bachelor completion programs for veterinary technology that are offered entirely online: St. Petersburg College in FL, PennFoster College in AZ, and Tarleton State University in TX. There is no college of veterinary medicine that currently offers a RVT-to-BSVT degree in veterinary technology online, and only four CVM's that offer any veterinary technology education at all (Purdue, Michigan State, Lincoln Memorial, and Mississippi State).

As the rising interest in advanced degrees in veterinary technology is highlighted, such as AAVMC's (American Association of Veterinary Medicine Colleges) 2020 publishing of "Development of Advanced Veterinary Nursing Degrees: Rising Interest Levels for Careers as Advanced Practice Registered Veterinary Nurses", the more the veterinary community is going to have to reevaluate the options currently offered to veterinary technicians.³ The BLS states that there are currently 106,680 veterinary technicians, however the AVMA estimates that there are more likely 56,000 veterinary technicians (with the BLS also including veterinary assistants who have not earned a degree and license) that are currently practicing in North America.⁹ Regardless of which number is accurate, the current options for these potentially 50,000-100,000 practicing veterinary technicians if they want to further their education or career, is to attend one of three online bachelor's completion programs, or relocate to another area that offers an in-seat completion program. This lack of access is a driving force for MU to be the first college of veterinary medicine to offer a two-year degree completion, entirely online and asynchronous, to allow students to stay active in their careers while pursuing this advanced education.

To gauge student demand, we contacted regional veterinary technology programs that are currently offering associate level degrees and asked their students to participate in an anonymous survey. We were pleased to have 142 responses, which included a majority of positive feedback in pursuing additional education following their graduation, as well as assessing interest in potential courses.

| | Yes | Maybe | No |
|--|--------|--------|-------|
| Would you be interested in pursuing a bachelor's degree if available online, so you could take classes while employed? | 83.80% | 15.49% | 0.70% |
| Would an advantageous credit transfer encourage you to pursue a bachelor's degree? | 92.25% | 6.34% | 1.41% |

Recommendations of topics that students would like to see included in the program was also discussed in the survey. Responses included: large animal nursing, exotic animal care, anesthesia, business management, and pharmacology as the most common recommendations. Of the seventy-five responses, fifty-four of those topics are already included in our program and we look forward to adding additional content as the program grows and succeeds.

Table 1a. Student Enrollment Projections (anticipated total number of students enrolled in the program during the first five fall semesters following implementation.)

| Year: | 1 | 2 | 3 | 4 | 5 |
|-----------|----|----|----|-----|-----|
| Full-time | 13 | 25 | 32 | 41 | 50 |
| Part-time | 12 | 25 | 42 | 63 | 80 |
| Total | 25 | 50 | 74 | 104 | 130 |

Table 1b. New Student Enrollment Projections (anticipated number of students enrolled in the program during the first five fall semesters following implementation that are new to the University.)

| Fiscal Year: | 1 | 2 | 3 | 4 | 5 |
|--------------|----|----|----|-----|-----|
| Full-time | 13 | 25 | 32 | 41 | 50 |
| Part-time | 12 | 25 | 42 | 63 | 80 |
| Total | 25 | 50 | 74 | 104 | 130 |

Table 1c. Projected Number of Degrees Awarded

| Year: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------------|---|----|----|----|----|----|----|----|----|----|
| # of Degrees Awarded | 0 | 10 | 12 | 28 | 32 | 42 | 48 | 56 | 64 | 72 |

These student enrollment projections and degrees awarded have been revised since submission of the program preproposal and pro forma, due to new veterinary industry support, further consideration of survey feedback, and assessment of new information that facilitated comparison to similar programs. The anticipated initial enrollment is now 25 students, instead of 20, secondary to a high volume of Missouri practicing veterinary technicians that have reached out following the employer survey distribution. Additionally, when evaluating the student survey that had 142 respondents, over 70 students reported that they are interested in pursuing a bachelor's degree despite additional financial costs of attending at a college of veterinary medicine.

Student enrollment growth each year was estimated to go up starting in year three of the program to 10 additional new students/year, instead of 5. This is due to MU-CVM's partnership with Moberly Area Community College and their AAS-VT program will begin graduating 32 students annually in Spring 2023. Both institutions have already signed an MOU that outline this partnership (Appendix M) and are in agreement that an articulation agreement can provide a seamless transfer of credit for their AAS-VT program into MU's BSVT program. It is important to note that many of these students will have gone through the MACC program with an A+ scholarship

and may be entering MU with junior status and relatively little financial debt. Finally, they will have the opportunity to be working within the profession while attending this online degree plan as well.

Additionally, distribution of full-time and part-time student enrollments have stayed at 50/50 secondary to the fact that many perspective students who have reached out to the CVM for more information about the program have emphasized an interest to finish the degree plan within two-years. A majority of these veterinary technicians are excited to use this credential to open doors into new career opportunities. Ten students specifically mentioned the hope for the development of a veterinary physician's assistant or APVN and desire to get their bachelor's promptly to facilitate preparedness for this future career possibility. Although these students may not all take 20 credit hours both years, these estimations appear to be more accurate than 10 credits per year.

Finally, we evaluated 4-year, in-person, programs such as Murray State who had 90+ conferrals in 2016 and 2017 according to our Burning Glass Market Analysis (Appendix I). St. Petersburg College has an online bachelor's completion program most similar to our RVT-to-BSVT program and they have currently listed 125 enrollments in this BAS degree plan. Therefore, we are optimistic that we can provide access to a quality education to both newly graduated novice veterinary technician as well as those veterinarians who have been in the profession and are looking for new opportunities.

3.B. Financial Projection

3.B.1 Additional Resources Needed

The CVM is fortunate to have generous alumni and donors that contribute to their alma mater, such as Jim Nave, DVM. Dr. Nave has recently made a large donation to MU's College of Veterinary Medicine and has specified that \$180,000 should fund the launch of the BSVT program. Dr. Nave recognizes that the BSVT will serve an essential population within the veterinary community and answer a real need for additional veterinary technology education opportunities. With this tremendous support, it is likely that expenses incurred during the initial years of program will be covered. If the anticipated enrollments do not meet estimations, optional support funds may be borrowed from the CVM's "Dean's Fund for Excellence" and will be repaid to that fund when the program begins to produce a profit.

The program's online format enables reduced costs and minimal staffing during preliminary years, including a program director, to start year one, and a BSVT advisor, to start in year two. These employees will take care of transcripts, transfer credit, and confirming articulation agreements are in place for each enrolled student in the BSVT program.

Operating expenses of this program are relatively low since it is offered entirely online and will not have any in-seat instruction. The director's office is already outfitted with technology and furniture and there is an additional desk available that can be used for a program advisor. Budgeted costs include one additional computer and space overhead/rent for the two offices to be used in the Veterinary Medicine Building on MU's campus, as well as costs for supplies to be used by the two program employees, including membership dues for regional and national organizations. Being an online program will alleviate expenses associated with equipment costs and maintenance and repair. Very little or no change in long-term operating expenditures is anticipated for this program.

A primary operating expense for this degree plan will be dedicated to marketing the program nationwide. It is vital to market aggressively in the first few years of the program, as we plan to make the University of Missouri College of Veterinary Medicine, the premier university for advanced online education in veterinary technology.

3.B.2. Revenue

All students interested in this bachelor's completion degree will be new to the University of Missouri and the College of Veterinary Medicine. The UM system currently offers some courses focused on veterinary technicians; however, without an ability to transfer their associate-level credits, we have lost out on the opportunity to bring many of these veterinary paraprofessionals to our college. Also, offering a degree plan specific to their needs as veterinary technicians, we should gain a whole new following of interested students.

The BSVT pro forma has also been updated with MU's estimated undergraduate discount rate for tuition for the 2021-2022 school year. (BSVT Pro Forma). These discounts will increase MU's ability to provide scholarship funding of general benefit to all undergraduate students in MU. Enrollment projections included in the attached pro forma document include an estimated full-time student taking 20 hr/year and graduating after two years and part-time students taking 10 hr/year and graduating in four years. We estimated a total program attrition for both full and part-time students to be 20% across their 2-4-year enrollment (Appendix E). We used numbers from St. Petersburg College for comparison since they offer a bachelor's completion degree entirely online. Their program attrition is consistently around 20%, and they typically have a 95% graduation rate after the first year of schooling.

We do not expect our program to receive ear-marked state support, nor will it draw from any existing University of Missouri core institutional budget.

3.B.3. Net Revenue

The BSVT program's primary strength is that it is entirely online, and no space or equipment will need to be added to the college to offer this degree plan. Further, the

ability to build from a foundation of previously available courses, eliminates the need to hire a large number of new instructors to cover this coursework. In anticipation of the new degree, many of the CVM instructors have already developed their courses for the BSVT program, and most are already certified as online instructors through Mizzou's Office of eLearning. This dedication to keeping expenditures down in combination with high-interest levels within the veterinary community will ensure program success within the first few years.

Table 2. BSVT Financial Projections for Years 1-5

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------------------------|-------------|-------------|------------|-----------|-----------|
| 1. Expenses per year | | | | | |
| A. One-time | | | | | |
| <i>New/Renovated Space</i> | | | | | |
| <i>Equipment</i> | 2,837 | - | - | 2,837 | - |
| <i>Library</i> | | | | | |
| <i>Consultants</i> | | | | | |
| <i>Other</i> | | | | | |
| Total one-time | 2,837 | - | - | 2,837 | - |
| B. Recurring | | | | | |
| <i>Faculty</i> | 73,600 | 75,072 | 76,573 | 78,104 | 79,666 |
| <i>Staff</i> | 0 | 51,000 | 52,020 | 53,060 | 54,121 |
| <i>Benefits</i> | 25,517 | 47,417 | 47,417 | 50,358 | 50,358 |
| <i>Instructional Costs</i> | 46,000 | 43,000 | 52,000 | 61,000 | 70,000 |
| <i>Marketing/Travel</i> | 50,000 | 35,000 | 35,000 | 35,000 | 35,000 |
| <i>Other</i> | 15,800 | 19,100 | 19,100 | 19,100 | 19,100 |
| <i>Campus Overhead</i> | 8,550 | 10,824 | 11,284 | 11,978 | 12,330 |
| Total recurring | 219,467 | 281,413 | 293,394 | 308,600 | 320,575 |
| Total expenses(A+B) | \$222,304 | \$281,413 | \$293,394 | \$311,437 | \$320,575 |
| 2. Revenue per year | | | | | |
| <i>Tuition/Fees</i> | 119,662 | 240,899 | 347,279 | 484,553 | 613,544 |
| <i>Institutional Resources</i> | | | | | |
| <i>State Aid</i> | | | | | |
| <i>Other</i> | | | | | |
| Total revenue | \$119,662 | \$240,899 | \$347,279 | \$484,553 | \$613,544 |
| 3. Net revenue (loss) per year | (\$102,642) | (\$40,514) | \$53,885 | \$173,116 | \$292,969 |
| 4. Cumulative revenue (loss) | (\$102,642) | (\$143,156) | (\$89,271) | \$83,844 | \$376,814 |

3.B.4. Academic and Financial Viability

The revised program plan targets enrollment of at least 100 active students participating in the RVT-to-BSVT program by year four (FY2025). The asynchronous learning network will enable students to manage their own time and priorities while working individually and collaboratively with classmates from diverse backgrounds, often across multiple time and geographical zones. Classes that cannot create this specific atmosphere will diminish the community experience and reduce the chances of veteran and novice veterinary technicians working together to elevate the group's learning experience. In the early years of the program, we plan to offer 15/20 courses each year to rotate some of the electives on an every-other-year basis. A goal of 100 students participating in classes distributed over three semesters should include close to 20 students/course and drive the vibrant learning community atmosphere.

Our goal will be a minimum of 90 students to be financially viable and self-sufficient by year four of the RVT-to-BSVT program. This viability figure was determined by evaluating the BSVT Pro Forma FY2025 revenue along with the additional assumption that the resource allocation model will be in effect at this time.

Table 3. Enrollment for Academic and Financial Viability

| Viability | Minimum Enrollment |
|-----------|--------------------|
| Academic | 100 |
| Financial | 90 |
| Overall | 100 |

3.C. Business Plan: Marketing, Student Success, Transition & Exit Strategies

3.C.1. Marketing Plan

A new program such as the RVT-to-BSVT degree plan will require an aggressive marketing plan to confirm that both veteran and newly graduated veterinary technicians are aware of this opportunity to continue their education online and self-paced. This campaign will have a several-step approach, starting with our communications department creating a virtual introduction using the broad reach of MU-CVM's distribution list and social media presence. Additionally, Missouri Veterinary Medical Association and Missouri Veterinary Technology Association has offered to distribute paper mailers and provide additional social media presence for this introduction. Information about the degree program will be included in the College of Veterinary Medicine website and Mizzou's eLearning website as well.

We also plan to collaborate with Mizzou's Office of eLearning to market the program as extensively as possible on a national level. The CVM and OeL have had success in

the past advertising through various social media platforms. On the marketing summary for the CVM in 2019-2020, it appears the most successful approach for veterinary technology is targeted advertising with NAVTA, where social media spots averaged a cost of \$8.82/inquiry (Appendix N). To reach a national audience, we plan to market the RVT-to-BSVT program at national conventions such as American Veterinary Medical Association Conference, FETCH national conference, and Western States Veterinary Conferences, as well as more regional conventions such as Missouri Veterinary Medical Association. Additionally, once the BSVT program is approved, we plan to reach out to our industry partnerships, such as VCA and KCAHC, so that we can spread the word through their large organizations. Along with this national virtual marketing campaign, we plan to target regional AAS-VT programs that do not already offer a bachelor's option within their program.

The next step of this marketing plan will include the BSVT program director offering in-person/zoom seminars that will have more specifics about the degree plan, provide future options for practicing veterinary technicians, and inform listeners of any current events affecting the profession of veterinary technology. Furthermore, the director will need to confirm that articulation agreements can be put into place with all interested veterinary technology programs to facilitate students' easy credit transfer. Additionally, we plan to offer similar presentations to state and regional veterinary and veterinary technician associations to communicate this fantastic opportunity to potential students and their employers.

Getting our introduction distributed in the first year will be the most important and why we budgeted \$50,000 for marketing expenses for this year. As the program grows, the focus will shift to using a majority of testimonials from graduates, current students, and satisfied employers to convey the benefits of an online program like the BSVT.

3.C.2. Student Success Plan

The MU College of Veterinary Medicine is exceptionally passionate about both the development and success of this BSVT program. We want to create a program that will promote learner-centered education and include personalized academic guidance by our BSVT director, and later the BSVT advisor. An in-depth discussion will evaluate the student's readiness for continuing education and confirm that admission requirements and associate-level credit are eligible for transfer at this preliminary intake session. This meeting intends to identify if a student's family and economic concerns might impact their ability to excel in the program and collaborate with them to establish resources for success.

Students will also be required to complete an online "BSVT Readiness Course" before starting the curriculum. This online module offered through their canvas interface will survey students on study skills, information technology skills, readiness to learn, motivation, time management, and support space. Each student that flags one of these

issues as a concern for them when they start the program will then be offered a list of resources to improve knowledge, capability, or comfort in these categories. This aspect of preparation before the start of coursework is vital for our student success as many of our students will be non-traditional and have various work and family obligations to consider. Once the module is complete and resources have been sent, students will need to submit a written improvement plan explaining how they plan to overcome stumbling blocks associated with these flagged topics. Along with this module, canvas will house important information to welcome students into the program, including options for their personalized learning plan, information about academic integrity, honesty, and plagiarism, accessibility resources, tutoring information, and an introduction to the comprehensive learning record. Also, we recommend a virtual information management seminar with our CVM librarian on all aspects of our virtual Zalk Veterinary Library, effective note-taking, and discussion on evidence-based medicine.

Incorporated in this virtual readiness information will be links to MU campus wellness resources, including phone consultation and 24/7 crisis support, online seminars offered through MU Wellness Resource Center, and information about the Sanvello app. We want our students to have multiple options to understand and manage their stress and mental wellness and hope they will take some of those best practices into their work in the veterinary community after graduation.

In the first semester of the program, we encourage a career development meeting with our BSVT director to build off data established in the original advisement session. This meeting will encourage students to set academic and career goals and further refine their personalized learning plan. The learning plan will verify the number of credits they want to take each semester, plan on what electives they want to include, which semesters they are available, and their tentative graduation date.

Preparing our students early in the program, with the tools they can reach for when classes and life get overwhelming, are critical for student success. The focus following these initial meetings will allow students to lead their success plan. However, we will recommend advisement sessions to facilitate early intervention if a student begins to struggle.

In the second to last semester of the program, the student will have a follow-up meeting with our BSVT advisor or program director to confirm that all courses are in place for graduation the following semester. They will also be encouraged to provide feedback in surveys before beginning their senior year and again at graduation. These surveys will provide the feedback needed to gauge if the program meets expectations and evaluates students and graduates' satisfaction.

3.C.3. Transition Plan

With full support from the CVM Dean, program success will rely primarily with the BSVT program director. The director must develop partnerships with AAS-VT programs and then establish articulation agreements that provide a bridge into our program. The director will communicate with the Dean, offering regular updates, and will be in charge of the continued development of the program, marketing, and cultivating relationships for recruitment purposes and employer feedback. If a new director is appointed, they will have to jump in to continue to promote these relationships; however, the overall program should stay on a steady level of achievement due to the collaboration of other full and part-time employees devoted to this program's success.

Having an advisor 100% dedicated to the program will make it possible to facilitate the new program direction with relative ease for students. The advisor will continue to be the point person for both enrolled students and potential future students and monitoring the transfer credit of all students newly enrolled at MU. The Director of Veterinary Online Programs will continue to oversee all online coursework and help with instructor contact, so there are no negative repercussions to program quality during a leadership change.

Lastly, the College of Veterinary Medicine plans to continue its dedication to see this program succeed. The CVM will support the director in any way possible to see this program thrive and offer the best possible advanced education to all practicing veterinary technicians across the US.

3.C.4. Exit Strategy

The Bachelor of Science in Veterinary Technology degree will be a unique program that will bring students to the College of Veterinary Medicine and the University of Missouri that would otherwise not enroll at this institution. Using our student survey as a gauge, we anticipate an extensive interest in this program from veterinary technicians across the nation (Appendix A). However, if the program's headcount cannot meet the goal of 60-70 students actively enrolled by year three (FY2024), we plan to alter the program to a phased-down form. This approach will include decreasing the frequency of courses offered and excluding less popular electives from the program to manage expenditures. During this phased-down time, the program director will continue to market the program as best possible while keeping travel and other expenses to a minimum. Additionally, no new courses will be added, although we may consider adding certificate programs to increase revenue if we can verify stakeholder interest.

The BSVT program director and the College of Veterinary Medicine's Executive Dean of Finance will be monitoring the program's budget closely and evaluating options for increasing revenue and decreasing expenditures as best possible. Our initial goals for

the program are to be self-sustaining within the first few years and then push to increase enrollment to allow for a thriving learning community that will lend itself to providing an excellent student experience. MACC's AAS-VT program will have its first graduates in the Spring of 2023, and our articulation agreement will provide many of these students to immediately enter the BSVT program in FY2024. We expect to see an increase in enrollments at this time secondary to this exciting partnership.

Additional evaluations will continue every year, including a thorough viability evaluation in FY2025. If the RVT-to-BSVT program fails to reach 100 active student enrollments by FY2026, it will move to inactive status. This inactive standing will entail no new enrollments, teaching out current students, and working to make innovations to the program format or terminate the program at the end of FY2026.

4. Institutional Capacity

One of the many strengths of the BSVT degree plan is that there is a large volume of courses already being offered through Veterinary Online Programs. A majority of BSVT program instructors have a long history of teaching in an online setting and creating courses aligned with quality matters and now five pillars quality review recommendations. Dr. Laurie Wallace, Director of Veterinary Online Programs, Dr. C.B. Chastain, Advisor for Veterinary Online Programs, and Mrs. June Kelly, Business Support Specialist, are the current faculty and staff that will provide support for the BSVT degree.

Veterinary Online Programs (*Wallace, Chastain, Kelly*), an interdepartmental program within the College of Veterinary Medicine, began offering online courses for registered veterinary technicians in 2009, expanded courses to include online pre-veterinary elective courses, and delivered the first comprehensive online Master's course for veterinary professionals in 2014 with initial graduates in 2017. Veterinary Online Programs now offers an online graduate certificate and two online undergraduate certificates.

Mizzou Online (now UM System Office of eLearning) staff and instructional designers from MU Course Design and Technology (formerly ET@MO) have been involved in developing the Veterinary Online Programs courses, degree programs, and certificates. Our current educational designer is Amanda Stafford, and our Office of eLearning educational coordinator is Lindsey Boudinot, who offer invaluable support and guidance.

Since the BSVT program is offered entirely online, its stress on campus resources should be minimal to null, and the program curriculum will only have to add four new courses. We are excited that in this online medium, we can encourage peer interaction via discussion boards and continue to foster an active learning environment from differing perspectives of the profession, without additional time-intensive

requirements from instructors. We plan to have every BSVT course evaluated by the Office of eLearning and go through a full quality review process prior to its launch.

The University of Missouri College of Veterinary Medicine Online Programs already has a strong foundation established to build this degree. We have entrenched faculty devoted to seeing the program succeed and have the knowledge and tools to offer coursework that is both academically and clinically relevant to potential students. A majority of faculty also have years of experience working with Mizzou's Office of eLearning Course Design and Technology to develop elite online courses and facilitate an active learning community.

5. Program Characteristics

5.A. Program Outcomes

BSVT Program Learning Outcomes:

1. Develop confidence in personal leadership and utilize interprofessional communication skills to serve as a role model and a leader in the workplace.
2. Use veterinary medical terminology and advanced knowledge in veterinary technology to effectively discuss normal and abnormal conditions of animals.
3. Integrate and apply knowledge of veterinary technician specialties to effectively and appropriately provide veterinary nursing care in such domains as (but not limited to):
 - a. Animal behavior
 - b. Lab animal medicine and research
 - c. Clinical pathology
 - d. Small animal physical rehabilitation
 - e. Equine nursing
 - f. Farm animal nursing
 - g. Animal nutrition
 - h. Veterinary emergency and critical care
 - i. Small animal neurology
 - j. Veterinary clinical practice
 - k. Veterinary toxicology
4. Develop and apply advanced principles of veterinary practice management to make economically sound professional decisions, comply with legal and regulatory requirements, and contribute to a prosperous hospital environment.
5. Utilize appropriate written, verbal, and non-verbal skills to communicate with diverse populations through a variety of mediums.
6. Identify ethical and animal welfare dilemmas and apply a process for making critical choices and actions using compassion, integrity, respect, and responsibility.
7. Blend previous learning and develop advanced knowledge in veterinary anatomy, physiology, pharmacology, and clinical pathology.

Special Skills specific to this program:

All students admitted to this program have completed training to become a registered veterinary technician. This requires proficiency in essential skills identified by the AVMA CVTEA (American Veterinary Medical Association Committee on Veterinary Technician Education Accreditation) and passing their national licensure examination (Veterinary Technician National Exam).

5.B. Program Design & Content

Veterinary technology programs are accredited and monitored by the AVMA's (American Veterinary Medical Association) CVTEA (Committee of Veterinary Technology Educations & Activities). This accrediting body has specific requirements set in place for 2-year & 4-year vet tech degrees, which require both degree plans to emphasize completion of "Veterinary Technology Student Essential and Recommended Skills List" (Appendix B). All 4-year veterinary technology degree holders are considered "technologists," while 2-year degree holders are considered "technicians." However, there are currently no additional skills or licensure examinations that are specific to 4-year degree holders or RVT-to BSVT graduates. The CVTEA also does not have any explicit guidelines for a bachelor's completion degree. However, if at some point there becomes a mid-tier master's-level veterinary professional, or the VIC is successful in creating scope of practice recommendations for 2-year vs. 4-year degrees, there will be additional accreditation and licensing exam requirements established.

Currently, the CVTEA recommends that programs offering baccalaureate degrees develop curricula that distinguish the program from an associate degree program. Per the CVTEA website, the baccalaureate degree program may expand veterinary exposure and offer added value options such as: Laboratory Animal Medicine, Practice Management/Business, Research, Education, Emergency/Critical Care, Anesthesia, Clinical Laboratory Medicine, Dentistry, and Internal Medicine. All these recommendations were considered when deciding what courses to include in this degree completion, and we hope to add additional courses as the program grows. (Appendix F)

The Veterinary Innovation Council (VIC) also developed a task force to establish the "High-Value Veterinary Technician Initiative: 2-yr vs. 4-yr Education Project".⁵ In their report, they concluded that the added value in 4-year education programs should primarily emanate from the expansion of general education along with communication, critical thinking, leadership, management, and perhaps business to position these graduates as well-trained to assume team leadership roles in the workplace. The task force also discussed the potential added value of training veterinary technicians within a college of veterinary medicine and recommended new accreditation processes and new certifying exams for these graduates and are

currently working with the AAVSB (American Association of Veterinary State Boards) and CVTEA to make these changes a reality.

The VIC's recommendations emphasized coursework including but not limited to: general education, communication, critical thinking, leadership, ethics, staff development and mentoring, self-care and wellbeing, risk management, and practice management fundamentals. They also recommended expanding previous knowledge in: emergency and critical care, dentistry, internal medicine, anesthesia and analgesia, laboratory animals, behavior, clinical pathology, clinical practice, dermatology, equine nursing, physical rehabilitation, nutrition, ophthalmology, surgery, zoological medicine, and diagnostic imaging. These focus areas are emphasized as they are all NAVTA (National Association of Veterinary Technicians Association) recognized veterinary technician specialties (VTS), and this program will be a fantastic compliment for technicians interested in obtaining a VTS certification.

Admission into our proposed BSVT program will require graduation from an AVMA-accredited associate-level veterinary technology program and a passing score on their national licensure exam (VTNE=Veterinary Technician National Exam), as well as a GPA of 2.5 on all college credit coursework. Once students are accepted into the program, they will have the ability to follow an asynchronous, self-paced plan, so they have the flexibility to continue working full or part-time within the profession.

To develop a curriculum that will meet the previously discussed guidelines while also aligning content with program outcomes and building off our previously offered veterinary technician coursework, we established a curriculum that is specific to our college of veterinary medicine. It has quite a few differences versus the other three bachelor completion degrees currently offered online, which are more specific for technicians interested in getting their VTS or becoming a practice manager. Our program is built on the concept that a bachelor completion credential would be a professional advancement opportunity and should lead to better utilization by employers, higher compensation, improved job satisfaction, and improved veterinary technician retention. We put a large emphasis on teaching the science behind the clinical and nursing skills students will have learned in their associate-level program and prepared them for additional upward mobility within the veterinary community and elsewhere.

Our curriculum has evolved since the original submission of the preproposal and includes some essential courses recommended in the VIC's report, distributed in June 2020. We also received helpful recommendations from the undergraduate curriculum committee when comparing our program to the nursing program, and they also suggested the addition of a leadership course. Therefore, we added both a course in leadership and communication and one in practice management to round out our core curriculum and aim to meet the needs of veterinary technicians that are currently practicing.

5.C. Program Structure

5.C.1. Program Structure Form

1. Total Credits Required for Graduation: 120 minimum
Most students enrolling in the BSVT program will transfer between 39-43 veterinary technology specific credits dependent on their AAS program. They will also have variable general education credits transfer.
2. Residence requirements, if any: None
3. General education
 - a. Total general education credits: 36

| Course Area | Hrs |
|--|-----|
| Math & Quantitative Reasoning | 3 |
| English Exposition & Argumentation | 3 |
| Biological, Physical, & Math Sciences (must include two disciplines and at least one lab) | 9 |
| Humanities & Fine Arts (must include at least 2 disciplines) | 9 |
| Social & Behavioral Sciences (must include two disciplines and a civics course) | 9 |
| First Writing Intensive Course | 3 |

4. Major Requirements
 - a. Total credits specific to degree: 40

Required Courses (specific course or distribution area and credit hours): 22

| Course | Hrs | Course | Hrs |
|--|-----|-----------------------------------|-----|
| Leadership & Communication in Veterinary Technology (WI) | 3 | Biomedical Comparative Physiology | 3 |
| Elements of Comparative Anatomy | 3 | Domestic Animal Behavior | 2 |
| Comparative Pharmacology | 3 | Veterinary Cytology | 2 |
| Veterinary Business & Practice Management | 3 | Animal Welfare & Ethics | 3 |

5. BSVT Elective credits

a. Total elective credits: 18

- i. Veterinary Medical Terminology (1)
- ii. Farm Animal Sanitation & Disease (3)
- iii. Small Animal Physical Rehabilitation (3)
- iv. Veterinary Nursing for Lab Animal & Research (3)
- v. Fundamentals of Small Animal ECC (3)
- vi. Clinical Veterinary Neurology (3)
- vii. Principles of Toxicology (3)
- viii. Canine & Feline Nutrition (3)
- ix. Veterinary Hematology & Chemistry (3)
- x. Introduction to Equine Clinical Practice (3)
- xi. Intro to Veterinary Clinical Parasitology (2)
- xii. Equine Critical Care & Nursing (3)

6. Requirement for thesis, internship, or other capstone experience: None.

7. Any unique features such as interdepartmental cooperation:

This program will be taught by members of all three academic departments within the College of Veterinary Medicine including Biomedical Sciences, Veterinary Pathobiology, and Veterinary Medicine & Surgery as well as several adjunct instructors from the state of Missouri, and across the US. The College of Veterinary Medicine is excited for this interdepartmental collaboration which is noted in the letters of support from all three department chairs.

5.D. Program Goals and Assessment

Learning outcomes will be assessed utilizing a variety of modalities, which will be dependent upon the course and instructor. The required courses will have a minimum of three proctored objective-based examinations. Other assessments may include, but are not limited to case evaluations, recordings, formative assessments, group presentations, discussion boards, and more.

All students in the BSVT program will have passed the Veterinary Technician National Exam (VTNE) before being accepted into the program. There is currently no additional certification or licensure/standardized exams for bachelor-level education in veterinary technology; however, this may be changing in the future.

Typically, first-time, full-time undergraduate students who graduate within six years at the University of Missouri have a graduation rate of 68%. We anticipate a higher graduation rate of ~80% for our program due to the significant differences between the students accepted into the BSVT program and a typical first-time freshman.

5.E. Student Preparation

The BSVT target population is registered veterinary technicians. These potential students will need to have graduated from an AVMA-accredited associate-level veterinary technology program and completed all the AVMA-required technical skills (Appendix B). In addition to graduating from a veterinary technology program, these applicants must also have passed their national licensure exam, VTNE (Veterinary Technology National Exam), and therefore be credentialed to work in the profession. They must also have a GPA of 2.5 or higher on all college credit coursework.

An articulation agreement between the UM system and prospective student's previous institution will have to be established to facilitate a proper transfer of associate-level credits to apply toward their baccalaureate degree. Therefore, each student's path to earning the BSVT may be slightly different, and articulation agreements between community colleges and the MU CVM will be established to streamline this process for students. An sample articulation agreement with Moberly Area Community College (MACC) has been included in the appendix.

The University of Missouri is currently working on developing articulation agreements with associate-level veterinary technology programs at:

1. Moberly Area Community College in Mexico, MO
2. Metropolitan Community College in Kansas City, MO
3. Crowder College in Neosho, MO
4. Jefferson College in Hillsboro, MO
5. University of Arkansas at Beebe in Beebe, AR
6. Murray State University in Ardmore, OK
7. Northwest Community College in Norfolk, NE
8. Joliet Junior College in Joliet, IL

5.F. Faculty and Administration

A BSVY director position will be finalized closer to the start of the 2021 fall semester. Cindy Cravens, DVM, is currently spearheading the program within the College. The director will need to have a vision for how the program can evolve to meet the needs of veterinary technicians over time. The director will commit approximately 0.8 FTE to the BSVT program.

Due to the nature of CVM's existing high-quality, online-ready faculty members, the College anticipates that it will only need to hire three part-time adjunct instructors to cover the new course load. We do not plan to have additional requirements for instructors above the master's degree required by Mizzou's Office of eLearning for online undergraduate programs. However, we do plan to offer preference toward instructors that have knowledge of the veterinary medical profession and are either veterinarians or registered veterinary technicians who can refine their courses to keep them as clinically practical as possible. All DVM and RVT instructors are

required to keep up their continuing education hours needed for state licensure, which will ensure that they are staying up to date on clinically relevant information.

5.G. Alumni and Employer Survey

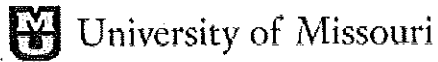
Following graduation, we plan to send out surveys at one, three, and five years following graduation to evaluate success within the profession and determine what areas we can build-on, and what areas are the most successful. These surveys will most likely be sent in a virtual format, such as SurveyMonkey or Qualtrics, and we will offer positive reinforcement for feedback, such as being entered in a drawing for a prize. Having feedback about job satisfaction, skills utilization, and salary is important, but having our graduates give us specific feedback on comparison before and after graduation will be crucial for our program evaluation and future goal-setting. We aim for most graduates to return surveys, including satisfied to extremely satisfied with competencies developed in the program and their clinical relevance in veterinary practice and patient care.

Although student and graduate satisfaction and success are our primary goals, we also want to elevate the patient care that can be offered in veterinary practices across America and improve the productivity of the veterinary medical team. For this reason, we also plan to survey employers of graduates to get their feedback on the opinions of employees' performance and productivity after graduation from our program. If practice owners can give us guidance on specific areas, we can expand our program to include, that will also be essential data when considering new courses to add to the program. Good communication is also vital to ensure that these employers are utilizing our graduates to their full potential, which is critical for the well-being of employers, employees, and the practice. We suspect a majority of employers will be satisfied to extremely satisfied with graduate employee performance on proficiencies in advanced veterinary technology.

5.H. Program Accreditation

Specific program accreditation is not necessary. The University of Missouri College of Veterinary Medicine is currently fully accredited by the American Veterinary Medical Association (AVMA). The AVMA does have an accrediting body that evaluates associate-level and 4-year veterinary technology programs, but they do not assess bachelor's completion programs. If the AASVB eventually develops a credentialing exam for bachelor-level technologists, then the CVTEA will then develop accrediting requirements that we will abide by.¹

6. Letters of Support



Office of the Provost
110 Jesse Hall
Columbia, MO 65211
PHONE 573-882-6596
FAX 573-882-0950
EMAIL MUProvost@missouri.edu
WEB provost.missouri.edu

March 3, 2021

Latha Ramchand, Provost
Mun Choi, President

Dear Provost Ramchand and President Choi:

Attached is the full proposal for a BS in Veterinary Technology. As a reminder, you have both already approved the pre-proposal. Dr. Martens and Steve Chaffin at UM System have reviewed this full request and are ready to move it forward. It does include markers for enrollment where we would consider inactivating the program if the targets are not met.

Please let me know if you need further information.

Sincerely,

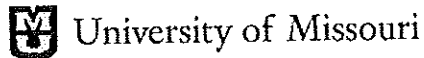
A handwritten signature in cursive that reads 'Matthew P. Martens'.

Matthew P. Martens
Senior Vice Provost

MPM:jb

A handwritten signature in cursive that reads 'Latha Ramchand' over a horizontal line.
Latha Ramchand, Ph.D. 03/03/2021 Date
Provost, University of Missouri

A handwritten signature in cursive that reads 'Mun Y. Choi' over a horizontal line.
Mun Y. Choi, Ph.D. 03/05/2021 Date
President, University of Missouri



University of Missouri

College of Veterinary Medicine
Office of the Dean

W203 Veterinary Medicine Bldg
Columbia, MO 65211-5120

PHONE 573-882-3768

FAX 573-882-5044

WEB cvm.missouri.edu

March 8, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Drs. Cravens and Wallace:

As Dean of the University of Missouri College of Veterinary Medicine, I would like to express my strong support for the online bachelor's degree in veterinary technology that is currently under development at our college. This program will meet a great need for the State of Missouri and beyond.

As I hear from alumni, visit veterinarians throughout the country, and speak with my dean colleagues at other accredited colleges of veterinary medicine, one message is clear and consistent: we need more certified veterinary technicians and we need to be able to retain them once hired. By offering the only BS completion program online in the US for this major, I am confident that Mizzou will quickly gain the reputation as the go-to for veterinary technicians nationwide wishing to expand their knowledge base and add to their value as employees. We hope to attract certified veterinary technicians who have completed their associate's degree through our MACC/MU program and elsewhere to apply for jobs at MU working in our veterinary teaching hospital. These technicians can then complete their BS program while employed at MU and further add to the collective expertise of our hospital staff. This is truly a win-win for our campus and for the students enrolled in the BS program.

I am excited to see us moving forward with this initiative and I support it wholeheartedly. It will contribute to Missouri workforce development and address an unmet need that the veterinary profession struggles with every day. Thank you for your hard work on this programmatic development. Please let me know how I can assist!

Best regards,

A handwritten signature in cursive script that reads "Carolyn J. Henry".

Carolyn J. Henry, DVM, MS (Oncology)

Dean

/cjh

UNIVERSITY *of* MISSOURI

COLLEGE OF VETERINARY MEDICINE

OFFICE OF THE ASSOCIATE DEAN FOR ACADEMIC AFFAIRS

April 30, 2020

RE: Online Bachelor's Degree in Veterinary Technology

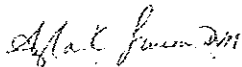
Dear Dr. Wallace and Dr. Cravens:

On behalf of the University of Missouri College of Veterinary Medicine Academic and Student Affairs departments, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online course work will make this program attractive to current veterinary technicians and allow them to continue to work within their profession while completing the degree. Providing this online opportunity to complete a bachelor's degree will allow veterinary technicians with an Associate of Applied Science degree the ability to expand their career opportunities, increase their marketable skills and contribute valuable leadership to their profession due to this specific advanced training.

I anticipate there will be a high level of interest in this opportunity to complete a bachelor's degree in veterinary technology online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

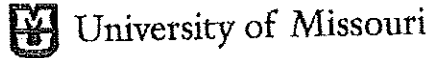


Angela K. Tennison, DVM

Associate Dean for Student Affairs

Interim Associate Dean for Academic Affairs





College of Veterinary Medicine
Office of the Dean

W203 Veterinary Medicine Bldg
Columbia, MO 65211-5120

PHONE 573-882-3768

FAX 573-882-5044

WEB cvm.missouri.edu

19 February 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Drs. Cravens and Wallace:

On behalf of the Dean's Office in the College of Veterinary Medicine (CVM) at Mizzou, please accept this letter in support of the online bachelor's degree in veterinary technology currently in development in the CVM.

Nationally, there is a high interest among many veterinary technicians to obtain a BS degree in veterinary technology. Offering this program entirely online will be far reaching, well beyond mid-Missouri or even the state of Missouri for that matter. Most importantly, the convenience of asynchronous learning will be appealing to many students who are currently in career. It will allow these students the flexibility to broaden their career opportunities while still being fully employed.

I commend you and the MU community for investing resources in this most worthwhile program. Please let me know how I may assist in moving this program forward.

Respectfully,

A handwritten signature in black ink that reads "Rusty L. Crawford".

Rusty L. Crawford, MPA
Executive Administrative Dean

/rlc



Biomedical Sciences
College of Veterinary Medicine
University of Missouri

Office of the Chair
E102 Veterinary Medicine Building
Columbia, MO 65211-5120
PHONE 573-882-7011
FAX 573-884-6890
EMAIL BowlesD@missouri.edu

April 22, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

As the Chair of Biomedical Sciences, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine. This degree program will fill a very specialized niche in the MU degree portfolio that has both a unique target demographic and unique degree requirements that is not accommodated by similar programs.

The convenience of asynchronous online courses makes this program even more attractive to veterinary technicians, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

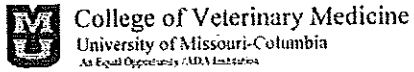
I anticipate that a high number of veterinary technicians will be interested in the opportunity to complete their BS degree online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

Douglas K. Bowles, Ph.D.
Professor and Chair
Department of Biomedical Sciences



1600 E. Rollins, E102 Veterinary Medicine Building, Columbia, MO 65211-5120. Phone: 573-882-7011 Fax: 573-884-6890
There's Only One Missouri.



College of Veterinary Medicine
University of Missouri-Columbia
An Equal Opportunity/ADA Institution

Brenda T. Beerntsen, PhD
Interim Chair and Professor
Department of Veterinary Pathobiology
213 Connaway Hall
Columbia, MO 65211-5130
Phone (573) 882-5033
beerntsenb@missouri.edu

January 2, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

As the Interim Chair of the University of Missouri's Department of Veterinary Pathobiology, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program very attractive to current veterinary technicians, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS degree the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

I anticipate there will be strong interest in this opportunity to complete a bachelor's degree in veterinary technology online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

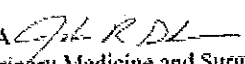
A handwritten signature in cursive script that reads "Brenda T. Beerntsen".

Brenda T. Beerntsen, Ph.D.
Interim Chair, Dept. of Veterinary Pathobiology
Professor of Veterinary Pathobiology



University of Missouri

College of Veterinary Medicine
Veterinary Health Center
900 E Campus Drive
Columbia, MO 65211
PHONE 573-882-7821

Date: August 25, 2020
To: Dr. Cindy Cravens
BSVT Program Director
MI: CVM Clinical Instructor
Community Practice-Veterinary Health Center
From: John Dodam, DVM, MS, PhD, DACVAA 
Professor and Chair, Department of Veterinary Medicine and Surgery
Subject: Support for Online Bachelor's Degree in Veterinary Technology

The purpose of this letter is to provide support for your proposed program that leads to a bachelor's degree in veterinary technology. This program is designed for veterinary technicians who have already earned an associate's degree. It will be an asynchronous, online program that will be a convenient way to reach out to interested veterinary technicians throughout the country. It will be a great way to add value to a 2-year degree. Moreover, it is in line with the Veterinary Innovation Council's High Value Technician Initiative.

I believe that your program will be a great way to improve salaries and employment opportunities for veterinary technicians. I look forward to see how the program evolves and develops. Please let me know if I can do anything to advance the program.



Bond Life Sciences Center
University of Missouri-Columbia

Room 471-G
Department of Veterinary Pathobiology
1201 Rollins Road
Columbia, MO 65211-7310
lorsonc@missouri.edu

January 15, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of the University of Missouri College, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

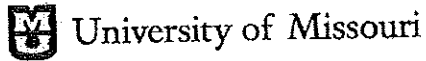
The convenience of asynchronous online courses makes this program even more attractive to current veterinary technicians, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS degree the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

I anticipate there will be a high level of interest in this opportunity to complete a bachelor's degree in veterinary technology online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

A handwritten signature in black ink, appearing to read 'Christian L. Lorson'.

Christian L. Lorson, Ph.D.
Professor
Associate Dean for Research & Graduate Studies, College of Veterinary Medicine
Department of Veterinary Pathobiology
Senator Christopher S. Bond Life Sciences Center, 471G
Phone: (573) 884-2219
Fax: (573) 884-9395
Email: lorsonc@missouri.edu



Office of Research and
Economic Development

330 Jesse Hall
Columbia, MO 65211
PHONE 573-882-9500
FAX 573-884-8471
WEB research.missouri.edu

January 21, 2020

Dr. Cindy Cravens, DVM
MU College of Veterinary Medicine
1520 East, Rollins Street
Columbia, MO 65211

Dear Dr. Cravens:

On behalf of the leadership of the University of Missouri department of Industry Partnerships and Engagement, I enthusiastically support the development of an online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program even more attractive to current veterinary technicians, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS degree the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

I anticipate there will be a high level of interest in this opportunity to complete a bachelor's degree in veterinary technology online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

Roy S. Hartline

Roy Hartline
Executive Director, Industry Partnerships & Engagement
University of Missouri



December 29, 2020

Cindy E. Cravens DVM
BSVT Program Director
University of Missouri College of Veterinary Medicine Clinical Instructor
W203 Veterinary Medicine Building
Columbia, MO 65211

RE: Online Bachelor's Completion Degree in Veterinary Technology

Dear Dr. Cravens,

BioNexus KC enthusiastically supports the development of the Bachelor of Science in Veterinary Technology at the University of Missouri College of Veterinary Medicine.

We are a non-profit organization committed to transforming the Kansas City bi-state region into a center of excellence for life sciences research, development, and commercialization. Our organization focuses on building the critical mass in life sciences researchers, infrastructure, and facilities. Key to achieving, and sustaining, success in our efforts is the availability of a technically competent, well-trained workforce.

Providing veterinary technicians an opportunity to complete a bachelor's degree online in a self-paced manner while working in the profession will expand their career opportunities, increase their marketable skills, and contribute valuable leadership due to their advanced training.

Veterinary technicians serve a range of growing needs in the veterinary and biomedical industries and I anticipate there will be a high level of interest in this opportunity to advance their education at a college of veterinary medicine – both by prospective students and employers.

BioNexus KC will continue to provide access to our extensive life sciences company network to assist in identifying required competencies, validating career pathways within this industry, and advocating for industry recognition of this new credential in the Kansas City region. These efforts are consistent with our organization's existing workforce development strategies.

This effort by MU to respond to the growing demand within the profession and provide access for technicians to earn their baccalaureate degree should be applauded.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith A. Gary".

Keith A. Gary, PhD
Vice President

30 W. Pershing Rd., Suite 210, Kansas City, Missouri 64108 Telephone (816)753-7700



12/22/20

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of VCA Animal Hospitals, I enthusiastically support the development of the online bachelor's completion degree in veterinary technology at the University Of Missouri College Of Veterinary Medicine.

It was a pleasure to meet with Dr. Cravens to learn of all that your program is doing to support and enhance the profession of veterinary technicians. The convenience of an online bachelor's degree plan makes this program even more attractive to current veterinary technicians, like myself, and allows us to continue to work within our profession while completing course work. This great opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS degree the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession.

I anticipate there will be a high level of interest in this opportunity to complete a bachelor's degree in veterinary technology online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

Teresa Stefan

Teresa Stefan, LVT
VCA Student Programs Specialist
Teresa.stefan@vca.com
425-221-8486

900 Grier Drive Las Vegas, NV 89119 • Telephone: (702) 382-5100 • FAX: (702) 979-1952 • VCA.com



January 17, 2020

30 W. Pershing Road
Suite 200
Kansas City, MO 64108
816.221.2121
fax: 816.842.2665
kcahc@thinkKC.com

THINK  .com

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

Please accept this letter from the KC Animal Health Corridor (KCAHC) in support of the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The KCAHC stretches from Columbia and St. Joseph, Missouri to Manhattan, Kansas. Within this area, there are over 300 companies and 20,000 people working in animal health. The companies located in the KCAHC are responsible for 56 percent of total worldwide animal health, diagnostics, and pet food sales and represent the largest concentration of animal health companies and service providers in the world. For more information about the KCAHC, please visit <http://kcanimalhealth.thinkkc.com>.

Since its founding 15 years ago, the KCAHC's mission has remained the same: support the growth of existing companies in the KCAHC and create an environment where new companies can grow and thrive. We accomplish this goal through the implementation of strategic priorities, which are approved by the Board. Representatives of the KCAHC Board are CEOs from the major animal health companies in the region in addition to the Dean of the Vet School at Kansas State University and the University of Missouri.

The KCAHC offers industry-leading workforce development solutions to complement the benefits of its globally unique animal health industry concentration. The KCAHC, in partnership with regional academic institutions, ensures that we are appropriately pipelining skilled talent into the animal health industry today and for many years to come.

The convenience of asynchronous online courses makes this program even more attractive to current veterinary technicians and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS degree the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

I anticipate there will be a high level of interest in this opportunity to complete a bachelor's degree in veterinary technology online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Should you require additional information regarding the KCAHC's endorsement of this program, please feel free to call or email me.

Sincerely,

Emily McVey
Director
Kansas City Animal Health Corridor
mcvey@thinkKC.com
M: 816.522.6168





Missouri Veterinary Medical Association

2500 Country Club Drive • Jefferson City, MO 65109 • (573) 636-8612 • Fax: (573) 659-7175
Email: mvma@mvma.org • Website: www.mvma.org

February 14, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of the Missouri Veterinary Medical Association, the MVMA supports the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program even more attractive to veterinary technicians, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

We are hopeful that a good number of veterinary technicians will be interested in the opportunity to complete their BS degree online, and we support MU's response to a growing opportunity in the profession for technicians with advanced training.

Sincerely,

Richard Antweiler
Executive Director

573-636-8612
rantweiler@mvma.org

March 15, 2020

Date:

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of the Missouri Veterinary Technicians Association, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program even more attractive to our members, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

Veterinary Technicians serve a range of growing needs in the veterinary and biomedical markets and I anticipate that they will be interested in the opportunity to complete their BS degree online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

Julie Rutherford

Julie Rutherford, RVT
MOVTA Conference Chair

Date: April 30, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of the Moberly Area Community College Veterinary Technology Program, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program even more attractive to current veterinary technicians, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS degree the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

I anticipate there will be a high level of interest in this opportunity to complete a bachelor's degree in veterinary technology online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

Stephanie Gilliam

Stephanie Gilliam, RVT, BS, CCRP, VTS (Neurology)
Director of Veterinary Technology
Moberly Area Community College
StephanieGilliam@macc.edu



**Metropolitan
Community College**
Maple Woods

January 6, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of Maple Woods Veterinary Technology program, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program even more attractive to our graduates, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

Graduates of the Veterinary Technology Program at Metropolitan Community College – Maple Woods serve a range of growing needs in the veterinary and biomedical markets and I anticipate that they will be interested in the opportunity to complete their BS degree online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

A handwritten signature in black ink, appearing to read 'Chris Morrow DVM'. The signature is fluid and cursive, written over a light blue horizontal line.

Chris Morrow DVM
Veterinary Technology Director
MCC – Maple Woods
(816) 604-3236

VETERINARY TECHNOLOGY PROGRAM



ARKANSAS STATE
UNIVERSITY
B E E B E
FLEET SPRING • LEAF • COLONY • HAWK

Date: February 20, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

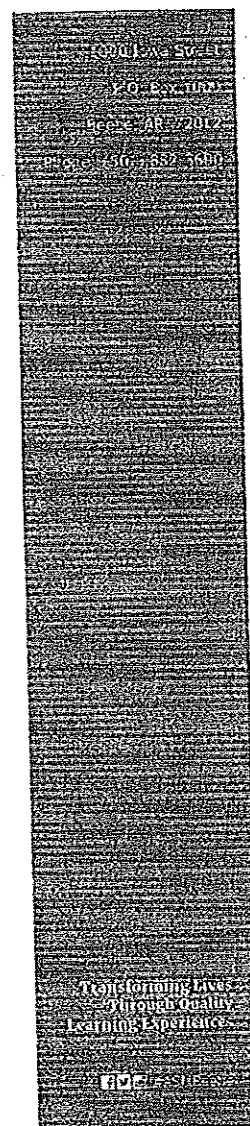
I strongly support the development of an online bachelor's degree in veterinary technology at the University Of Missouri College Of Veterinary Medicine.

I appreciate the fact that you are designing a program that will allow graduates with an AAS the ability to expand their knowledge while currently working in the field of veterinary medicine. In recent years, we have had an increase in graduates that are expressing an interest in continuing their education and pursuing a bachelor's degree. Most of the students are expressing an interest in online degree programs. I will refer our students to your program to continue their advance training.

I look forward to working with you in the future to develop an articulation agreement.

Regards,

Kristie A. Coley, DVM
kacoley@asub.edu
501-882-4572



MURRAY STATE COLLEGE

From Here...Go Anywhere.

December 20, 2019

RE: Online Bachelor's Degree in Veterinary Technology

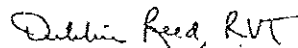
Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of Murray State College and their Veterinary Technology Program, we enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.


The convenience of asynchronous online courses makes this program even more attractive to our graduates, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

Graduates of the Veterinary Technology Program at Murray State College serve a range of growing needs in the veterinary and biomedical markets and we anticipate that they will be interested in the opportunity to complete their BS degree online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,



Debbie Reed, BS, RVT
Veterinary Technology
Program Chairman
One Murray Campus
Tishomingo, OK 73460
580-387-7521
dreed@mscok.edu



Laura Sandmann, BS, RVT
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Murray State College - Tishomingo - Ardmore Oklahoma
www.mscok.edu 580-387-7524



December 19, 2019

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of Northeast Community College and their Veterinary Technology Program, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program even more attractive to our graduates, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

Graduates of the Veterinary Technology Program at Northeast Community College serve a range of growing needs in the veterinary and biomedical markets and I anticipate that they will be interested in the opportunity to complete their BS degree online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Cooper".

Michael Cooper D.V.M.
Director of Veterinary Technology
Northeast Community College
801 East Benjamin Avenue
Norfolk NE 68701

801 East Benjamin Avenue | P.O. Box 469 | Norfolk, Nebraska 68702-0469 | (402) 371-2020 | (800) 348-9033 | fax: (402) 844-7400 | northeast.edu

EXTENDED CAMPUSES: O'Neill, South Sioux City, West Point | REGIONAL OFFICES: Alinsworth, Hartington



JOLIET JUNIOR COLLEGE

1901

Date: January 13, 2020

RE: Online Bachelor's Degree in Veterinary Technology

Dear Dr. Wallace and Dr. Cravens:

On behalf of the leadership of Joliet Junior College, and their Veterinary Medical Technology Program, I enthusiastically support the development of the online bachelor's degree in veterinary technology at the University of Missouri College of Veterinary Medicine.

The convenience of asynchronous online courses makes this program even more attractive to our graduates, and allows them to continue to work within their profession while completing course work. Providing an opportunity to complete a bachelor's degree online will allow veterinary technicians with an AAS the ability to expand their career opportunities, increase their marketable skills, and contribute valuable leadership to their profession due to this specific advanced training.

Graduates of the Veterinary Technology Program at Joliet Junior College serve a range of growing needs in the veterinary and biomedical markets and I anticipate that they will be interested in the opportunity to complete their BS degree online. This effort by MU to respond to the growing need in the profession for technicians with advanced training is to be applauded.

Sincerely,

Eileen McKee, MS, CVT
Program Director
Veterinary Medical Technology
Joliet Junior College
Phone: 815 280-2752
Fax: 815-280-2741

Illinois Community College District 525
1215 Houbolt Road Joliet, Illinois 60431-8938 (815)729-9020