

2023.013

FF

Student Technology Fee
Grant Proposal Request Form
Fiscal Year 2022-23
Northwestern State University of Louisiana

ALL BLANKS MUST BE FILLED COMPLETELY

Prepared by: Douglas Landry & Katie Coody For: Veterinary Technology Program

Department/Unit: Biological & Physical Sci. College: Arts & Sciences Campus: Natch.

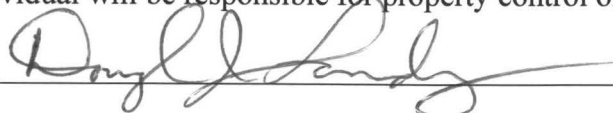
Which NSTEP Goals/Objectives does this project meet? 1, 3, and 9

Requested equipment will be located/installed/housed? Building Bienvenu Hall Room 230 & 303

Does the department requesting funding receive lab fees? YES

Are department property policies and procedures in place for requested equipment? Yes

Which individual will be responsible for property control of the requested equipment?

Signature:  Date: November 8, 2022

Proposal Requested Amount: \$11,483.13 Budget Attached (circle one): YES

Proposal delivered to Student Technology located in Watson Library, Room 113. Date 11/11/2022

The proposal must include all specifications, description, model number, quotation, cost, state contract number, and vendor for each item. If the proposal does not include all requested information, it will be returned.

1. Describe target audience.

The veterinary technology program offers an Associate Degree as well as a veterinary technology concentration biology Bachelor of Science Degree curriculum. Enrollment in the veterinary technology curriculum was approximately 170 students this fall, with many of the students double majoring to include the A.D. and B.S. degree options. We are currently maintaining our enrollment that varies between 140-170 student annually. Our current enrollment approaches the maximum number of students current faculty and staff levels can accommodate within the parameters set forth by our accrediting agency.

Graduates of these programs become veterinary technicians or veterinary technologists, respectively, and are eligible to sit for the National Veterinary Technician Examination to become Registered Veterinary Technicians or Technologists. The curricula require teaching a detailed list of hands-on application of skills in laboratories to meet the guidelines of our

accrediting body, the American Veterinary Medical Association.

The laboratory courses VTEC 3101, 3191, and 3201 would utilize the requested equipment. These courses are required of all students majoring in Veterinary Technology. These courses require students to use skills learned to analyze blood and fecal samples and monitor anesthesia associated with surgery and dental procedures on live animals. The courses require that students perform tasks which resemble those skills performed daily by veterinary technicians in veterinary hospitals.

2. Describe project/initiative for which you are requesting funds.

We are requesting funds to replace our slanted non-functional centrifuge in Bienvenu Room 230 and an outdated surgical monitor in Bienvenu Room 303 that is becoming dysfunctional with modern, updated equipment. Students enrolled in VTEC 3191, Veterinary Hospital Technology 1, are required to learn to process and separate blood components to run diagnostic blood chemistry panels and send samples to diagnostic labs. Graduates in the workplace perform this procedure daily on patients and is a required essential skill dictated by the American Veterinary Medical Association, our accrediting agency. Students perform venipuncture on a variety of species and it is centrifuged for separation. The students extract the plasma or serum to be evaluated on the chemistry panel. Students in VTEC 3191 learn the fundamentals of blood analyzers and evaluating the chemistry panel results while students in VTEC 3201 run pre-anesthetic chemistry panels to ensure that patients do not have abnormalities prior to anesthesia. Students enrolled in VTEC 3101, Veterinary Parasitology, will utilize the slanted centrifuge on fecal samples to examine for parasites. Many large animal parasites can only be concentrated for visualization by performing a sediment exam. In order for students to properly learn this technique, a slanted or fixed centrifuge is necessary. Veterinary technicians perform this diagnostic daily in large animal clinics. Students in VTEC 3201 will utilize the surgical monitor to evaluate parameters such as heart and respiratory rates, oxygen saturation, electrocardiograms, blood pressure, temperature, and end tidal carbon dioxide levels of anesthetized patients. This improves patient safety associated with anesthesia and allows students to become familiar with equipment that would be found in the workplace in well-equipped veterinary hospitals.

3. State measurable objectives that will be used to determine the impact/effectiveness of the project.

- a. Each equipment item will be set up to be readily accessible to students enrolled in the referenced laboratory courses.
- b. Students will be instructed in the care and use of the equipment and will have the experience of using the equipment to evaluate samples and care for live animal patients.
- c. Course syllabi will be updated to reflect use of this equipment.
- d. Practical examinations will be administered to each student enrolled in the laboratory courses using this equipment.
- e. Students are graded daily in anesthesia and surgery labs on their performance, which will include proper use of the equipment and their understanding of what the monitored parameters indicate.

4. Indicate how each project objective will be evaluated.

- a. The laboratory will be inspected and maintained to ensure that the requested equipment items are properly placed, maintained, and used appropriately in VTEC 3101, 3191, and in VTEC 3201.
- b. The syllabi will be compared to existing syllabi to ensure that updated instructions

regarding use of the equipment items are included.

c. Student examinations will be evaluated by instructors to determine that student acquisition of skills is occurring. Documentation of student acquisition of essential skills will be maintained for each student enrolled in these laboratories.

d. Instructors directly oversee students monitoring anesthesia in VTEC 3201. Instructors quiz students regarding what the monitored parameters mean and what anesthetic adjustments need to be made to maintain these parameters within a normal range to improve patient safety associated with anesthesia. A daily point total is given to each student based on their knowledge and performance, which has a significant impact on their overall grade in the course.

5. If funded, which NSTEP <http://www.nsula.edu/nstep/NSTEP.pdf> objective(s) will this funding of this project advance? How will funding of the project advance the University and College/unit technology plan?

a. This project will advance the following NSTEP objectives:

1. *To improve access to technology by students, faculty, and staff at Northwestern State University.* Specifically, to expose students to modern laboratory equipment, train them in its use, and give them basic essential skills required in post-graduate careers.
3. *To upgrade laboratories with modern technology.* Specifically, to use modern instruments appropriate in complexity for the current "state-of-the-art" in veterinary medicine and technology.
9. *To provide and support hardware and software upgrades, new hardware and software for specialized functions, training for technical support personnel.* Specifically, the equipment item requested represents functions specialized for modern veterinary medicine and the training of personnel for the workplace.

b. This project will advance the following University and College of Science, Technology, and Business goals:

1. *Goal 1: Northwestern State University will endeavor to create and maintain a responsive, student-oriented environment.* Specifically, by providing the latest technological advances in veterinary medicine to student instruction, we will respond to the student's need to be well educated.
2. *Goal 2: Northwestern State University will provide programs, services, and operations throughout the University of high quality and effectiveness.* Specifically, the Veterinary Technology program is fully accredited by the American Veterinary Medical Association. Providing modern technological equipment for student instruction illustrates that we care to provide a high quality educational experience for our students, so that they are well prepared for board examinations and a career in veterinary medicine.

6. Provide a justification for funding of this project. Estimate the number of student that will be served per academic year and in what ways. Please indicate also any unique needs of the target group.

Veterinary medicine capabilities and technologies continue to advance at a rapid rate; this fact requires that we who educate Veterinary Technicians keep pace with advancements if we are doing what is best for our students. The Veterinary Technology Program enrollment is above 170 students during our most recent count, and each of these students is required to take the Veterinary Hospital Technology 1 and 2 as well as Veterinary Parasitology courses in their last year of coursework before a semester-long internship. The enrollment per semester in each of these courses is typically 20-24 students.

The NSU Veterinary Technology Program serves to educate students who will become Registered Veterinary Technicians after successfully completing the National Veterinary Technician Examination and applying for licensing. This program helps fill a nation-wide shortage of veterinary technicians. It is a necessity that we have the equipment available to train our students well, so that they will be prepared for their internship and their role in the workplace. The equipment items requested are essential if we are to continue providing modern excellence in Veterinary Technology education.

7. List those individuals who will be responsible for the implementation of the project/initiative and indicate their demonstrated abilities to accomplish the objectives of the project.

- a. Dr. Douglas Landry, a veterinarian, has over 19 years of professional experience, and 2 years of experience in teaching veterinary technology students.
- b. Dr. Kaleigh MacQueen, a veterinarian, has over 5 years professional experience, and 2 years of experience in teaching veterinary technology students.
- c. Ms. Katie Gill Coody, a 2008 graduate of NSU in Veterinary Technology, is a Registered Veterinary Technician with over 15 years clinical experience and is in her eleventh year of teaching and assisting in laboratories at NSU.
- d. Ms. Lauren Leger, a 2014 graduate of NSU in Veterinary Technology, is a Registered Veterinary Technician with over 8 years of clinical experience and is in her seventh year of teaching and assisting in laboratories at NSU.

All are well experienced with the use, handling, care, and capability of each of these equipment items used for teaching and in practical clinical veterinary applications.

8. Describe any personnel (technical or otherwise) required to support the project/initiative.

No special installation is required. The equipment items will require minimal assembly, which can be accomplished by instructors.

9. Provide a schedule for implementation and evaluation.

The equipment items will be ordered when funding becomes available. They should be delivered within thirty days after the issuance of a purchase order and will be set up for use immediately upon arrival. VTEC 3101 and 3191 are taught during the fall semester and VTEC 3201 is taught during the spring semester, so the equipment will begin being utilized as soon as it is installed. The equipment will have been used by all upper-level veterinary technology students by fall 2023, and evaluation methods of the project fully implemented.

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five years.

These equipment items are expected to last greater than ten years with proper care and maintenance. Veterinary technology faculty/staff emphasize proper care of equipment to the students, as that is also a valuable skill in the veterinary hospital setting.

11. Explain in detail a plan and policy that will be in place to ensure property security/controls for any equipment received through a Student Technology Fee. If you are requesting equipment that will be either/or checkout to students or moved within the department, you must provide a checkout/loan policy.

The laboratory where the equipment will be housed remains locked at all times unless the laboratory is in use for teaching purposes. The equipment will not be used outside the laboratory. No loss of equipment has occurred from this laboratory in the previous 30 years it has been used for teaching these laboratory courses.

12. Does the department that is requesting equipment receive lab fees? If so, please provide a justification for requesting funds from tech fee funds over using lab fees from your department.

Veterinary Technology does receive student assessed lab fees. However, the total amount averages about \$7,000 per academic year. Veterinary technology laboratory courses involve extensive use of expendable medicines and medical supplies, like bandage materials, syringes/needles, gloves, all drugs needed to successfully anesthetize animals to perform surgical procedures, diagnostic testing kits, supplies to run diagnostic laboratory machines, etc. Because these materials are one-use items, we must spend lab fee funds to restock these supplies each year. We do not receive funds in the amount necessary to purchase equipment items such as these.

13. Attach a detailed budget.

A detailed budget follows.

14. Attach two (2) letters of support for the project from the following individuals: the requesting department's Dean, the appropriate Vice President or for student request, the SGA President from the requesting campus.

Letters of support are attached.

Budget Summary:

Qty	Item #	Description	Unit Price	Ext. Price
1		Centrifuge	\$4,217.87	\$4,217.87
1		Anesthetic Monitor	\$7,265.26	\$7,265.26
		Total		\$11,483.13

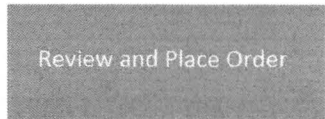
1. The centrifuge must have a fixed angle rotor that has a capacity of at least twenty-four 15mL tubes and spin at a variable range with the maximum speed being at least 3,000 rpm.
2. The anesthetic monitor must include ECG, pulse oximetry, heart rate, blood pressure, temperature, and end tidal carbon dioxide measurements.

Sales Quotation

*Quote Nbr	Creation Date	Due Date	Page
2314-4439-01	11/10/2022		1 of 1
Payment Terms		Delivery Terms	
NET 30 DAYS		DEST	
Valid To		Prepared By	
12/31/2022		LAPALOMBELLA, GIANLU	
Customer Reference		Sales Representative	
RFQ 11/10/22		GIANLUCA LAPALOMBELLA	
To place an order	Ph: 800-955-1177	Fx: 800-955-0740	
Submitted To:		Customer Account: 481040-001	
DOUGLAS LANDRY 318-357-5915		NW STATE UNIV 998 S JEFFERSON ST CENTRAL RCVG NATCHITOCHE LA 71497	



FISHER SCIENCE EDUCATION
4500 TURNBERRY DRIVE
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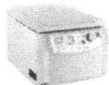



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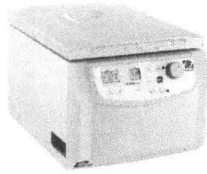
Nbr	Qty	UN	Catalog Number	Description	Unit Price	Extended Price
1	1	EA	02 106 1055	CENTRIFUGE, MULTI PRO	2,934.40	2,934.40
				 <p>Ohaus Frontier 5000 Series Multi Pro Centrifuge, Capacity: 4 x 100 mL, Hertz: 50/60 Hz, Max. RCF: 18,624, Max. Speed: 14,000 rpm, Refrigerated: No, Voltage: 120 V/230 V, Electrical Requirements: 120 V, Stainless Steel Vendor Catalog # 30314811 This item is being sold as 1 per each</p>		
2	1	EA	02 106 1059	ROTOR,ANGLE,30X15 RB/FA, ID	1,283.47	1,283.47
				 <p>Ohaus Angle Rotors, Capacity: 30 x 15 mL, RB-FA/ID, For Use With: Frontier 5000 Series Multi Pro Centrifuges (FC5714), Polypropylene, Max. RCF: 2,830 x g, Max. Speed: 4,500 rpm, Angle: 35 deg., Description: Angle Rotor, Net Weight: 3.260 kg, Recommended Applications: Education Vendor Catalog # 30314832 This item is being sold as 1 per each</p>		
MERCHANDISE TOTAL						4,217.87

NOTES:

We now offer highly competitive financing with low monthly payments. Please contact your local sales representative for more information.

Tell us about your recent customer service experience by completing a short survey. This should take no longer than three minutes. Enter the link into your browser and enter the passcode: USA-PGH-CS2

<http://survey.medallia.com/fishersci>



OHAUS™ Frontier 5000 Series Multi Pro Centrifuge

OHAUS™ Frontier 5000 Series Multi Pro Centrifuges are universally powerful and versatile for virtually any lab application

Manufacturer: OHAUS™ 30314811

Catalog No.	02-106-1055
\$4,734.00 / Each of 1	
Qty	<input type="text"/> Check Availability

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Customers who viewed this item also viewed ⓘ

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Catalog No. 02-106-1051

OHAUS™ Frontier 5000 Series Multi Centrifuge

\$2992.00
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Catalog No. S72193

OHAUS™ Frontier 5000 Series Multi Centrifuge

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Catalog No. 02-106-1065

OHAUS™ Frontier Multi Pro Centrifuge

\$6674.00
/ Each



Catalc

OHAUS™ Frontier F

\$!

Description

- Powerful platform offers maximum flexibility for a range of applications
- These multi-purpose centrifuges offer a high-speed centrifugation platform which can be customized to fit workflow needs with a wide variety of rotors and accessories
- The intuitive design of the centrifuges & accessories enable easy access to parameter settings, and quick rotation between applications
- Features include automatic rotor recognition and backlit LCD
- The performance of these centrifuges is propelled by German engineering with high-quality components for reliable use
- Constructed of chemical-resistant stainless steel to ensure durability in lab use
- Centrifuges are equipped with protective features, including automatic over-speed protection, imbalance detection, and self-diagnostic system to ensure reliable use and operator safety

Specifications

Capacity	4 x 100 mL
Max. Speed	14,000 rpm
Material	Stainless Steel
Electrical Requirements	120 V
Frequency	50/60 Hz

Max. RCF	18,624 x g
Refrigerated	No
Type	Centrifuge
Voltage	120/230 V

Promotions

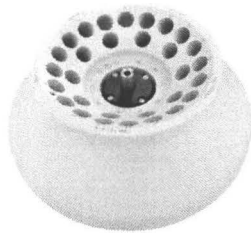
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Get a Mini Centrifuge with Centrifuge Purchase

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Buy an OHAUS Frontier Micro Centrifuge or Multi Centrifuge, get a mini centrifuge at no additional cost.

Expires: 06-30-2023



OHAUS™ Angle Rotors

OHAUS™ Angle Rotors for use with Frontier 5000 Series Centrifuges

Manufacturer: OHAUS™ 30314832

Catalog No.	02-106-1059
\$2,128.00 / Each of 1	
Qty	<input type="text"/> Check Availability

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Catalog No. 02-106-1051

OHAUS™ Frontier 5000 Series Multi Centrifuge

\$2992.00
/ Each



Catalog No. 02-106-1053

OHAUS™ Angle Rotors

\$1505.00
/ Each



Catalog No. S72193

OHAUS™ Frontier 5000 Series Multi Centrifuge

\$2290.00
/ Each

Description

- Angle Rotors are available in a variety of different sizes
- For use with Frontier 5000 Series Centrifuge

Specifications

Description	Angle Rotor
Type	RB-FA/ID
Max. RCF	2,830 x g
Net Weight	3.260 kg
Angle	35°

Material	Polypropylene
Capacity	30 x 15 mL
Max. Speed	4,500 rpm
For Use With (Equipment)	Frontier 5000 Series Multi Pro Centrifuges



SURGIVET ADVISOR TECH VITAL SIGNS MONITOR WITH PRINTER, 3 LEAD ECG, SPO2, HR, NIBP, ETCO2, 2-CH TEMP

Supplied By: SurgiVet (VINV-SMIT-1239)

Availability

This item is estimated to arrive in 3-5 business days.

✓ Practice Preferred

\$8,349.24

Regular: \$8,749.59

Each

In Stock: 4



SKU	Unit of Measure	Pack Type	Case Qty	Purchase History
073374		Each	1	---

PRODUCT DESCRIPTION

The SurgiVet Advisor Tech Vital Signs Monitor features a 12-inch screen that allows for easy-to-view vital signs monitoring at a glance. For your convenience, the intuitive monitors can be controlled via touchscreen, knob or hard keys, and patient vital signs data download via Wi-Fi or Ethernet for each case. Integrated printers are available on monitors including basic and advanced parameters

FEATURES & BENEFITS

- SpO2 (Masimo SpO2 available)
- 3-lead electrocardiogram (ECG)
- 3 modes of ECG: monitor, surgical, diagnostic
- 13 ventricular arrhythmia detection
- ST elevation and depression
- Heart rate
- SunTech® non-invasive blood pressure (NIBP)
- Apnea detection (ETCO2 module)
- 2-channel temperature, drug calculator, impedance respiration, hemodynamic calculator, and titration table
- Wi-Fi or Ethernet data download

ADDITIONAL PRODUCTS



NORTHWESTERN STATE COLLEGE OF ARTS AND SCIENCES

November 10, 2022

Dear Student Technology Grant Committee:

I am writing this letter in support of Dr. Doug Landry's proposal to purchase new laboratory equipment for the veterinary technology hospital technology and parasitology laboratories located in Bienvenu Hall. These laboratories are utilized by all students (approximately 170) in the associate and/or bachelor degree programs in Veterinary Technology within the School of Biological and Physical Sciences. It is essential for students to learn to perform common laboratory tests on veterinary patient samples if they are to be workforce ready upon graduation as they are used to evaluate patient health status. The experiences gained from using such equipment will make our graduates more attractive employees in clinical positions and stronger candidates for graduate/professional schools.

The Veterinary Technology program within the School of Biological and Physical Sciences currently has an outdated and/or non-functional large capacity centrifuge and anesthetic monitor. Without these pieces of equipment, students are not able to perform essential medical analyses and learn to properly care for veterinary patients. While the Veterinary Technology program does collect lab fees for some courses, those fees are used to purchase consumables that are used in educational laboratories. Equipment, such as a centrifuge or anesthetic monitor, is not deemed an acceptable lab fee purchase based on state-mandated purchasing guidelines. Furthermore, the lab fees that we do collect have not been adjusted for inflation in over 15 years. Therefore, the collected funds are not sufficient to purchase larger pieces of equipment like those requested here. Additional funding sources are required to keep our laboratories outfitted with current technologies to provide our students with the best educational experience.

Dr. Landry has my full support in the submission of this grant proposal. I trust that you will give him every consideration as he works diligently to improve the student experience in the School of Biological and Physical Sciences. If you have any questions regarding my recommendation or support, please do not hesitate to contact me.

Sincerely,

Francene J. Lemoine, Ph.D.

Dean of the College of Arts and Sciences

Professor of Biology

Northwestern State University of Louisiana

Natchitoches, LA 71497

Phone (318)357-5805

Fax (318)357-4255

Email lemoinef@nsula.edu

DEDICATED TO ONE GOAL. **YOURS.**[™]

III NORTHWESTERN STATE

Office of The Provost

To: Student Tech Fee Committee
From: Dr. Greg Handel, Provost and Vice President of Academic Affairs
Re: Veterinary Technology
Date: November 10, 2022

I wholeheartedly support this grant request from Dr. Landry for funding veterinary technology laboratory equipment improvements. This equipment is necessary for three courses required for all veterinary technology students and will be routinely used by students in each of these courses. It will replace an outdated and dysfunctional anesthetic monitor and a nonfunctioning centrifuge with updated, modern equipment similar to what students will encounter in advanced veterinary hospitals. The faculty and staff in veterinary technology have a history of maintaining clean laboratories and their equipment in proper working order. This equipment should be used by students for years to come.

The veterinary technology program currently serves approximately 170 students and continues to be in high demand among both freshmen and transfer students. Regional veterinary hospitals recognize the quality of NSU graduates in veterinary technology and the demand for student interns and graduates always exceeds the supply. Providing the needed equipment will allow the program to continue serving the student population's educational requirements.

This application has my full support as the Provost and Vice President of Academic Affairs. I am very thankful to the Office of Instructional Technology and Student Support for continuing to support education programs at Northwestern State University of Louisiana.

Sincerely,



Greg A. Handel
Provost and Vice President of Academic Affairs
Dean of the Graduate School
Professor of Music Education

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