NORTHWESTERN STATE
UNIVERSITY OF LOUISIANA

Full Funding Approved

13-Jan 2024

Internal Use Only

STUDENT TECHNOLOGY FEE
GRANT PROPOSAL REQUEST FORM
FISCAL YEAR 2023-24

ALL BLANKS MUST BE FILLED COMPLETELY

Prepared by: Jessica Despino for School of Allied Health

Department/Unit: Allied health College: CONSAH Campus: Shreveport/Alex

Which NSTEP Goals/Objectives does this project meet? Objectives 1, 3, 4, 7, & 8 Goals 1 &

Requested equipment will be located/installed/housed? Bldg _____ Room _____

Does the department receive lab fees? YES ☑ NO ☐

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: Jessica Ashworth Despino Digitally signed by Jessica Ashworth Despino Date: 2023.11.09 11:15:45 -06'00' Date: 11/9/2023

Proposal Requested Amount: 67,856 Budget Attached: YES ☑ NO ☐

Email completed request to Chris Brumley at brumleyc@nsula.edu

Funding from the Student Technology Fee is allocating funds to departments and individual grants, awarded on a competitive basis, which advance the teaching/learning process within the mission of the University. All requests will be considered in this context, as articulated herein and as reflected in the unit's technology plan. Proposals should enable or enhance the ability of Northwestern students to access and assimilate large mounts of information, further their professional competence, and provide state of the art technologies in their field. The nature of, and rationale for, a request for student technology fee allocation must be consistent with the University's and requesting unit's technology plan.

- Grant applications must be submitted by November 16th at 4:00 pm
- Funding decisions will be made during the month of December 2023
- If your grant is approved by STAT, you will be informed via email

STUDENT TECHNOLOGY FEE
GRANT PROPOSAL REQUEST FORM GUIDELINES

The proposal must include all specifications, descriptions, model numbers, quotations, cost, state contract numbers, and vendors for each item. If the proposal does not include all requested information, it will be returned.

1. Describe target audience.
2. Describe project/initiative for which you are requesting funds.
3. State measurable objective that will be used to determine the impact/effectiveness of the project.
4. Indicate how each project objective will be evaluated.
5. If funded, which NSTEP objective(s) will funding of this project advance? How will funding of the project advance the University and College/unit technology plan?
6. Provide a justification for funding of this project. Estimate the number of students that will be served per academic year and in what ways. Please indicate also any unique needs of the target group.
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.
8. Describe any personnel (technical or otherwise) required to support the project/initiative.
9. Provide a schedule for the implementation and evaluation.
10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five (5) years.
11. Explain in detail a plan and policy that will be in place to ensure property security/controls for any equipment received through the Student Technology Fee. If you are requesting equipment that will either be checked out to students or moved within the department, you must provide a checkout/loan policy.
12. Does the department that is requesting equipment receive lab fees? If so, please provide a justification for requesting funds from the Student Technology Fee over using lab fees from your department.
13. Attach a detailed budget.
14. Attach two (2) letters of support for the project from the following individuals: the requesting department's Dean, the appropriate Vice President or student request, the SGA President from the requesting campus.

1. **Describe the target audience.**

   The radiography phantom will allow the Radiography Program to provide the proper training in image production, positioning, and radiation protection. This training will benefit the program's students, faculty, and clinical stakeholders, including the patients, clinical instructors, radiography department personnel, radiologists, and hospital staff in proximity when imaging is performed.

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

   We currently have an older adult phantom that is in disrepair or does not accurately simulate the patient's anatomy or tissue density, limiting our ability to educate the students to accurately select the amount of radiation required to produce a diagnostic image. It is vital that the students receive this training to ensure that they have a thorough understanding of radiation exposure to the patient and how it affects the quality of the images they produce. The whole-body phantom is a life-size adult human radiography phantom with a synthetic skeleton and realistic tissue density. The whole-body radiography phantom, PBU-7200, is a Lifesize, full-body anthropomorphic phantom with a synthetic skeleton, lungs, liver, mediastinum, and kidneys embedded in a soft tissue substitute replicating an adult patient. Students position the phantom as an actual patient and take X-rays to evaluate the diagnostic accuracy of their positioning and the amount of radiation used to produce the resultant radiograph. This is a vital step in the education of radiography students. It allows them to experiment in the on-campus lab and develop their skills before x-raying actual patients at the clinical site. The realism of this phantom will be instrumental in educating the NSU radiography students in accurate patient positioning and selecting the proper amount of radiation required to create quality diagnostic images while protecting the patient from overexposure to radiation and reducing radiation exposure to the student and clinical staff.

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

   The overarching goal of this project is to increase practice readiness skills for radiologic students through enhanced simulation-based training. The project will be operationalized through the following objectives:

   Objective 1: Increase the quality of simulation-based education for radiologic students by investing in a whole-body phantom.

   Objective 2: Expand the use of experiential learning through the creation of innovative scenarios through the development of a simulation-based clinical competency utilizing the phantom with three different scenarios each semester.

4. **Indicate how each project objective will be evaluated.**

   Objective 1: Increase the quality of simulation-based education for radiologic students by investing in a whole-body phantom.

Activities to accomplish objective	Responsible Party	Timeline	Evaluation/ Performance Measures
Purchase phantom	Program Director	Spring 2024	Purchase requisitions are submitted
		Spring 2024	Equipment received

Objective 2: Expand the use of experiential learning through the creation of innovative scenarios through the development of a simulation-based clinical competency utilizing the phantom with three different scenarios each semester.

Activities to accomplish objective	Responsible Party	Timeline	Evaluation/ Performance Measures
Develop stories and scenarios with input from SAH faculty and project team.	Jessica Despino	Summer semester 2024	Three different scenarios created for each clinical level.
Develop rubric/assessment tool to evaluate student performance during simulation activity with phantom.	Project team	Summer semester 2024	Rubric created
Facilitate phantom simulation activity.	Project team	Fall and Spring semesters	Facilitated at least 3x/semester. Student performance scores (measured by rubric) End-of-semester survey to collect participants' perceptions. Feedback will be used to adjust and modify the phantom scenarios to maximize effectiveness.

5. If funded, which NSTEP objective(s) will 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:

Objective 1: To improve access to technology for students, faculty, and staff at Northwestern State University.

Objective 3: To upgrade laboratories with modern technology.

Objective 4: To improve and proliferate the use of distance education within all colleges at NSU.

Objective 7: To encourage technology initiatives by faculty, staff, and students.

Objective 8: To encourage innovation and research

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

Goal 1: To create an environment that supports individual efforts toward academic, career, social, and civic success.

Goal 3: To work together and create an environment of excellence.

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

The purchase of the radiography phantom is to ensure that our students, prior to performing patient imaging clinically, are properly trained in the production of high-quality diagnostic radiographs and radiation protection. This purchase will directly affect the success of the student by better preparing them to skillfully position patients for radiographic imaging and knowledgeably and accurately select the amount of radiation required to produce a diagnostic image while minimizing radiation exposure to the patient, student, and personnel.

Purchase of this equipment will provide on-campus instruction in patient care, positioning, and radiation protection using a phantom with similar tissue densities of an adult human body. This knowledge will facilitate the successful transfer of imaging skills clinically, enhance student performance, and provide the skills that future employers seek.

The whole-body phantom will be utilized for all three academic semesters (Spring, Summer, and Fall semesters) for courses RADS 3310, RADS 3820, RADS 3311, RADS 3811, RADS 3911, RADS 4511, RADS 4611, and RADS 4711. A total of 130 radiologic science clinical students will be served during each academic year.

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.**

Jessica Despino

Jessica Despino will be responsible for implementing the project's activities on the Alexandria campus. She will incorporate changes to clinical competencies and simulation training in Alexandria to facilitate equitable instruction for all BSRS students. Jessica Despino will also be a part of the project team to develop and facilitate rubric and activity assessments each semester. Her role in the project is vital to ensure project activities are executed effectively on the Alexandria campus.

Sarah Barnes

Sarah Barnes will also be responsible for implementing the project's activities on the Alexandria campus. She will incorporate changes to clinical competencies and simulation training in Alexandria to facilitate equitable instruction for all BSRS students. Sarah Barnes will also be a part of the project team to develop and facilitate rubric and activity assessments each semester. Her role in the project is vital to ensure project activities are executed effectively on the Alexandria campus.

Kari Cook

Dr. Kari Cook will also be responsible for overseeing the project's activities on the Alexandria campus. She will give guidance on simulation training in Alexandria to facilitate equitable instruction for all BSRS students. Kari Cook will also be a part of the project team to develop and facilitate rubric and activity assessments each semester. Her role in the project is vital to serve as a mentor for project activities on the Alexandria campus.

Tammy Curtis

Dr. Tammy Curtis will be responsible for implementing the project's activities on the Shreveport campus. She will incorporate changes to clinical competencies and simulation training in Shreveport to facilitate equitable instruction for all BSRS students. Her role in the project is vital to ensure project activities are executed effectively on the Shreveport campus.

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

No personnel will be required to support the project/initiative. Whole-body phantoms will be delivered to designated campuses. Whole-body phantoms come fully assembled and are lightweight.

9. Provide a schedule for the implementation and evaluation.

	Spring	Summer	Fall	Spring
	Jan– May 2024	Jun – Jul 2024	Aug – Dec 2024	Jan – May 2025
Equipment is purchased				
Equipment is received				
Develop simulation scenarios with input from SAH faculty and project team.				
Develop a rubric/assessment tool to evaluate student performance during simulation activity with phantom.				
Facilitate phantom simulation activity.				
Assess student performance re: positioning skills (simulation-lab competency grades), semester feedback re: simulation scenarios				

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five (5) years.

No software is needed to support the equipment. The phantom will not need to be upgraded during the next five years with proper care and storage.

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

The whole-body phantom will stay in the designated diagnostic radiography lab. Students will not be allowed to check out the whole-body phantom. Each radiography lab door is secured and locked after

the laboratory course is finished for the day. A Radiologic Science faculty member must be present when the lab door is unlocked. Students are not left unattended.

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

    The Allied Health Department collects lab fees from students. These lab fees are required to provide supplies that are consumed on a regular basis in radiologic science core laboratory courses. Since the basic operation of laboratories depends on the availability of student lab fees and is often used up, such a large purchase as a whole-body phantom cannot be supported through lab fees.

13. **Attach a detailed budget.**

    A detailed budget is attached, and here is the website link to the full-body X-ray phantom.
    https://www.supertechx-ray.com/Anthropomorphic/FullBodyPhantoms/ErlerZimmer-7200.php

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

    Letters of support are attached.

Budget

Supertech®

P.O. Box 186 Elkhart, IN 46515-0186 Ph: 574-264-4310 USA Toll Free: 800-654-1054
Fax: 574-264-9551 http://www.supertechx-ray.com sales@supertechx-ray.com

October 4, 2023 – Valdi for 30 days –

Jessica Despino MSRS, RT(R)(MR)
Assistant Professor
Northwestern State University
Shreveport Louisiana
PH: (318) 769-7561
E-Mail: ashworthj@nsula.edu

Dear Jessica,

Thank you for the opportunity to send this quote.

Pricing for two of the full body phantom 7200 shipping to the same destination is as follows.

Item #	Description	Unit Price	Qty.	Ext. Price
7200	Erler-Zimmer Natural Bone Full Body X-Ray Phantom *****This Phantom Does Not Contain Internal Organs*****	$ 33,928	2	$ 67,856
	This Phantom has Organ Shadows of the Larynx, Lung, Heart, and Kidneys			
	Shipping via standard ground within the Continental 48 States			Included
	Total Price	$ 33,928	2	$ 67,856

This phantom is made containing a human skeleton. Each phantom may be different depending on the person used to make the phantom. One phantom may be a very petite woman, while the next may be a very tall athletic man.

Please also be aware pricing for this phantom is subject to change as the exchange rates between the USD and Euro fluctuate.

The current lead time in production is 7 - 9 months.

The 7200 will be new with a one year warranty against defects in parts and workmanship.

We are happy to accept a purchase order, invoice after shipping, and offer net 30 day terms for payment. (Net 30 day terms is assuming credit has been approved.)

Payments accepted: Check, ACH, or Credit Card. (There is a 3% convince fee for credit card payments.)

Pricing in this quote is only valid if two of the 7200 full body phantoms are purchased at the same time and shipping to the same destination. Split destinations or purchases will impact pricing.

Please feel to give us a call, or send an e-mail if there are any questions.

Best regards,

//Chris

Christopher Mell
Sales & Customer Support
Christopher@supertechx-ray.com

Letters of Support

NORTHWESTERN STATE
College of Nursing and School of Allied Health
Office of the Dean

November 7, 2023

RE: Student Technology Grant

Members of the Committee,

This letter is to express my support for the grant proposal submitted by the School of Allied Health faculty to purchase modern training equipment for students in the radiologic science program. This project is vitally needed to improve the quality of learning experiences made available for clinical students at the Shreveport and Alexandria instructional sites.

The use of x-ray phantoms in the BSRS program will serve to increase students' knowledge of radiographic procedures and radiation physics. In addition, the phantoms system will enhance students' knowledge of radiation safety, which is of utmost importance in health care. The addition of this cutting-edge technology will enhance the overall student experience, which will certainly foster a better prepared practitioner in the field of radiologic sciences. It is anticipated that the program, through this proposal, will be moved to a level of national eminence.

I urge you to act favorably to the proposal. The addition of this technology will most certainly benefit students who in turn will be able to become invaluable contributors to the quality of health care and economic development in Louisiana.

Sincerely,

Joel Hicks

Dr. Joel Hicks
Dean, College of Nursing and School of Allied Health

November 6, 2023

To whom it may concern,

As a student in a healthcare profession, I have seen both the scholastic and practical day-to-day sides of the healthcare system. What I've learned is that the closer the educational experience for students can represent the real-life practice of their profession, the better NSU's students will be prepared to be competent professionals.

The grant monies that the Shreveport Radiological Sciences Lab has requested will make a direct impact on the education and preparation of the students who participate in the program. The closer NSU's labs simulate the environment in which professional radiologists work, the better-prepared students will be when they graduate and enter the workplace.

I fully support and endorse this grant request.

Joshua Hooper
Shreveport SGA President