

UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

Improving First Clinical Semester Simulation
Learning Experiences Through the Use of
Auscultation Trainers

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Dr. Lisa Broussard – Dean: College of Nursing and Health Sciences

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Title: Improving First Clinical Semester Simulation Learning Experiences Through the Use of Auscultation Trainers

Date: 5/22/2024

Names:

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Abstract

The University of Louisiana at Lafayette College of Nursing and Health Sciences (CONHS) offers baccalaureate education to prepare future nurses through diverse experiences of didactic preparation, enhanced by simulation and clinical experiential learning. The first clinical semester in the nursing curriculum, currently plotted as the second semester of sophomore year, introduces students to assessment techniques that are of utmost importance to nursing care. Paramount to the students' preparation are the skills of auscultation of patient heart, lung, and abdominal sounds. Students utilize didactic coursework and audiovisual learning aids to appreciate and discern the differences of auscultated body sounds. The use of medium- and high-fidelity simulation mannequins as learning aids in the nursing simulation labs allows clinical faculty to assess student understanding and proficiency at auscultatory techniques in a safe and controlled environment.

Proposal Description

a. Purpose of grant and impact to student body as a whole.

The purpose of this STEP grant is to provide students at the School of Nursing entering their first clinical semester with learning via technologically advanced auscultatory training mannequins to assist in transition of didactic learning from the classroom and non-manipulatable audiovisual components of computer adapted software utilized in the nursing curriculum. Having programmable mannequins with up-to-date software features is imperative to meet the learning needs of the newer generation of college level learners.

All students in the baccalaureate nursing program are required to complete the courses in which these mannequins are being proposed, NURS208 – Fundamentals of Nursing Care, and NURS209 –Health Assessment Skills. Providing students with the learning tools they need to attain proficiency ensures the next generations of nurses graduating from this school have the skills and knowledge they need for successful practice.

The goal of this grant is to provide a total of five (5) medium fidelity adult torso auscultation trainers, with a plan of one (1) auscultation trainer for each clinical group of ten (10) students present during their assigned in-lab simulation experiences during the NURS208/NURS209 semester of assessment skills acquisition. The purchase of an additional pediatric torso auscultation trainer is included to assist these students in understanding and identifying physiologic differences between adult and pediatric patients. These auscultation trainers assist students in proper auscultatory assessment

techniques, particularly in relation to appropriate stethoscope placement and auditory findings associated with a plethora of potential normal and abnormal heart, lung, and abdominal sounds.

b. Projected Lifetime of Enhancement

STEP funds will be expended between January and May, 2025. Projected lifetime of the enhancement is expected to be approximately 7-10 years, based on simulation market expectations of product lifetime. Life-cycle maintenance costs are included within the proposed budget.

c. Person(s) responsible for:

i. Implementation:

Dr. Tricia Templet, BSN Program Coordinator, Mrs. Cheryl Mack, Learning Resource Center (LRC) Simulation Specialist, and Dr. Arielle St. Romain, Second Semester Sophomore Semester Coordinator, will jointly oversee the implementation of the mannequins into the NURS208 Simulation Labs.

ii. Installation:

No specific installation of the requested equipment is required, aside from preparation for utilization by clinical faculty. Equipment will be delivered to the CONHS LRC Simulation Labs. Setup will be implemented by Mrs. Cheryl Mack and Mrs. Mandy Helo, NURS208 Skills Laboratory Assistant.

iii. Maintenance:

A 1-year service plan is included from the manufacturer MedVision in the budget proposal. Mrs. Mack will oversee maintenance of the simulators as required for care and upkeep.

iv. Operation:

The patient simulators will be housed in the NURS208 Simulation Labs within the LRC. Mrs. Mandy Helo will be available for troubleshooting during student simulation and practice experiences and Mrs. Cheryl Mack will be available for maintenance and warranty upkeep.

v. Training:

MedVision will provide training service as reflected in the purchase quote. After training sessions have been completed by pertinent faculty and staff, the equipment will be available to these persons for auscultatory skills training with students throughout the semester.

Budget Proposal

1.	Equipment 6 MedVision Auscultation Trainers 5 adult trainers 1 pediatric trainer	\$93,000.00
2.	Software	Included in purchase cost
3.	Supplies Controlling computers x6 Bluescope™ stethoscope adapters x6 Bluescope™ chargers x6	Included in purchase cost
4.	Warranty 1-year premium warranty – Includes software updated and support; remote troubleshooting; yearly remote preventative maintenance; on-site repairs if necessary (no trip charges)	Included in purchase cost
5.	Installation/Training	Included in purchase cost
6.	Other Discount for bulk purchase	-\$4,650.00
7.	Tax/Shipping	\$700 shipping Tax exempt
Total:		\$89,050.00

Timeline Indicating Project Implementation Schedule:

1. December 2024 – Funding awarded
2. January – May 2025 – Purchase requisitions completed
3. May – August 2025 – Equipment received
4. Fall Semester 2025 – Equipment available in LRC NURS208 Skills Lab

Previously Funded STEP Projects:

Dr. Tricia Templet has previously been awarded a STEP grant in Fall 2019 entitled Maternal-Child Simulation Lab: Improving Pediatric Simulation. Dr. St. Romain and Dr. Hernandez have not previously been awarded any STEP grants prior to this submission cycle.