#2020.013

STUDENT TECHNOLOGY

GRANT PROPOSALS

2019 – 2020

CPU - ✓

TRACY BROWN: ACCEPTED ✓ OPPOSED: _____

COMMENTS:

No technical issues

SIGNATURE: Tracy Brown DATE: 12/2/19

HEATH FITTS: ACCEPTED ✓ OPPOSED: _____

COMMENTS:

SIGNATURE: Heath Fitts DATE: 12/4/19

SHAWN PARR: ACCEPTED ✓ OPPOSED: _____

COMMENTS:

SIGNATURE: [signature] DATE: 12/3/19

BLAYNE HENSON: ACCEPTED ✓ OPPOSED: _____

COMMENTS:

SIGNATURE: [signature] DATE: 12/4/19

PHILLIP MARTIN: ACCEPTED ✓ OPPOSED: _____

COMMENTS:

SIGNATURE: [signature] DATE: 12-3-19

#2020.013

Northwestern State University of Louisiana

FF

2019-2020
Student Technology Fee
Grant Application

Please Complete the Entire Application

Prepared by: Dr. Wanda L. Goleman For: School of Biological and Physical Sciences

Department/Unit: BMVT College: AS Campus: Natchitoches

Which NSTEP Goals/Objectives does this project meet? Goals 1 and 2; Objectives 1, 2, 3, 5, 9

Requested equipment will be located/installed/housed? Building Bienvenu Hall Room 304

Does the department receive lab fees? (circle one) **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? Dr. Chris Lyles

Signature: Dr. Wanda L. Goleman Date: 11/21/19

Proposal Requested Amount: $9163.44 Budget Attached (circle one): **YES**/NO

Proposal delivered to Student Technology located in Watson Library, Room 113. Date 11/22/2019

Please be sure to include detailed specifications, vendor information, state contract information, descriptions, and quantities in the application.

1. Describe the target audience.
Primarily Courses: BIOL 2251, 2261, 3311, 3321, reaching approximately 400 students over the course of an academic year.

Biology 2251 & 2261 Human Anatomy & Physiology for Nursing & Allied Health Majors I & II: This is a two-semester course is taken primarily by pre-nursing, psychology, and exercise physiology majors. Some education majors also opt to take these courses.

Biology 3311 & 3321 Human Anatomy and Physiology Laboratory I & II: This is a two-semester course aimed at upper level biology students, specifically students in the Biological Sciences Biomedical Concentration (pre-medicine, pre-physical therapy, pre-occupational therapy, pre-pharmacy, pre-physician assistant, and pre-dental. Additionally, Scholar's College majors frequently take these courses.

Occasionally, workshops are also held for high school students using this equipment.

2. Describe the project/initiative.
To purchase 8 laboratory computers to replace the current computers purchased approximately 10 years ago with Student Technology Fees.

3. State measurable objectives that will be used to determine the impact/effectiveness of the project.
To be able to continue to allow more students hands-on personal experiences (such as measures of their own muscle, heart and lung activates) with computer software, simulation programs.

4. Please explain the evaluation process for each objective.
Continued use of the computers in laboratory classes will provide evaluative evidence of the aforementioned objective.

5. Which NSTEP http://www.nsula.edu/nstep/NSTEP.pdf objective(s) will this funding of this project advance? How will the funding of the project advance the University and College/unit technology plan?
Funding of this proposal will advance the following NSU technology enrichment goals:

Goal 1) To create an environment that supports Individual efforts toward academic, career, social, and civic success.
Goal 2) To make Northwestern State University the premier regional university in the state.

NSTEP objectives accomplished through this upgrade based on the above stated goals are:
1) To improve access to technology by students, faculty, and staff at Northwestern State University.
2) To provide classrooms with updated technology and multimedia.
3) To upgrade laboratories with modern technology.
5) To upgrade and maintain the campus communication network and infrastructure.
9) To provide and support hardware and software upgrades, new hardware and software for specialized functions, training for technical support personnel.

In addition, the following key areas of the College of Arts and Sciences Plan with be advanced:
Maintenance and Support
Laboratory Equipment
Computer Accessibility

6. Please justify funding for the project. Provide 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.
Approximately ten years ago, a grant was funded via the Student Technology Fees for the purchase of 8 laboratory computers along with a physiology software program upgrade (Biopac) for laboratory 304 in Bienvenu Hall. This hardware-software system allows for students to collect real-time measurements of multiple body functions such as cardiovascular physiology, electromyograms, pulmonary function studies, nerve physiology, reaction times, and digestive physiology. The lifespan of the computers purchased at that time has expired (expected lifespan of computer technology is approximately five years), although the software remains viable. In general, the computers are beginning to malfunction during data collection and are not expected to survive much longer.

The laboratory computers will be available for the numerous stimulation programs that are currently utilized in the variety of anatomy and physiology courses. In addition, upgraded computers will allow for expanded abilities to use updated programs including online programs and web sites that are available. These programs provide students with creative, interesting and innovative ways for learning. The majority of biology students using this equipment have career goals in some area of healthcare. Being able to collect and analyze actual human physiological data in these courses offers many of them their first real hands-on experience in attaining this goal. The students also have the opportunity to compare different data sets which gives them a better understanding of human variation. Additionally, many of the nursing and allied health students enrolled in these courses are at an introductory level and are more vulnerable to

dropping courses. Being able to collect and analyze live data using hands-on learning techniques aids in the retention of these vulnerable students by keeping learning fresh and interesting.

Primarily Courses: BIOL 2251, 2261, 3311, 3321, reaching approximately 400 students over the course of an academic year.

7. List the individuals who will be responsible for the implementation of the project/initiative and indicate their demonstrated abilities to accomplish the objectives of the project.
Dr. Wanda L. Goleman – many years of computer use and collection of physiological data.

8. Describe any personnel (technical or otherwise) required to support the project/initiative.
Other support will come from Student Technology.

9. Provide a schedule for implementation and evaluation.
Immediately upon arrival, computers will be set up equipment and incorporated into all listed classes. Evaluation of their effectiveness is completed each semester via student assessments of understanding.

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five years.
Expected life of computer technology is approximately 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 Student Technology Fee. If requested equipment that will be either/or checkout to students or moved within the department, please provide a checkout/loan policy.
All equipment will be maintained in the laboratory. Students are not allowed to check out the either hardware. Doors to the laboratory remain locked unless an instructor is present.

12. Does the department receive lab fees? If so, please explain the need for Student Technology Fee funds.
This department does have laboratory fees available, however the total cost of $9163.44 for the purchase of eight new computers would reduce funds needed to maintain and operate this laboratory as well as many others.

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 for student request, the SGA President from the requesting campus.

Project: Replacement of Laboratory Computers used for the Study of Human Physiology

Proposed Budget

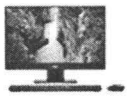
Equipment	Student Tech Fee Money Requested	Number of Units	Project Total
OptiPlex 7470 All-in-One - Build your own	$1145.43	8	$9163.44

Cart

Savings	$6,108.96
Subtotal (8)	**$9,163.44**

Dell Contract Code: C000000010742
Customer agreement number: -4400002525

Items	Quantity	Unit Price	Item total
OptiPlex 7470 All-in-One - Build your own	8	$1,909.05	$15,272.40



Discounted unit price: $1,145.43
Dell Contract Code: C000000010742
Estimated Ship Date
12/04/2019

Premier discount -$6,108.96
Catalog Number: 84 / xctoo7470aiousr

Category	Description	Code	SKU	ID
OptiPlex 7470 AIO	OptiPlex 7470 All-in-One XCTO	G4YRUXE	[210-ASEV]	1
Processor	Intel® Core™ i5-9500 (6 Cores/9MB/6T /3.0GHz to 4.4GHz/65W); supports Windows 10/Linux	G3TIKEM	[338-BRSY]	146
Operating System	Windows 10 Pro 64bit English, French, Spanish	GF48XA1	[619-AHKN]	11
Windows AutoPilot	No Windows AutoPilot	GYEO2AP	[340-CKSZ]	291
Microsoft Office	No Productivity Software	GEKH8UQ	[630-AAPK]	1002
Memory	8GB 1X8GB DDR4 2666MHz Non-ECC	GFH3TEZ	[370-ADZL]	3
Systems Management	No Out-of-Band Systems Management	G4GYSWU	[631-ACCY]	49
Additional Hard Drive	No Additional Hard Drive	GNTOSJ7	[401-AADF]	637
Wireless	No Wireless	GVHB6TP	[555-BBFO]	19
Wireless Driver	No Wireless Driver	GQMKF4C	[340-AFMQ]	7
Chassis Options	7470 AIO 23.8" FHD 1920x1080 IPS Non-Touch Anti-Glare, Camera, Integrated Graphics, Bronze PSU	GIFYQ2A	[329-BEJI]	116
Keyboard	Dell KB522 Business Multimedia Keyboard (US)	GHRL7AX	[580-AFHW]	4
Mouse	Dell MS116 Wired Mouse	GWJIAF2	[275-BBBW]	12
Back Cover	No Cable Cover	GDT2C7Z	[325-BCZQ]	376
Adapter	No Additional Cable	GIX0L8M	[379-BBCY]	592
External Speakers	No External Speaker	GTNM7E2	[817-BBBC]	200095
Stands and Mounts	OptiPlex All-in-One Basic Stand, 7460/7470 All-in-One	GI7GK90	[575-BBRC]	558
Software Stack	Windows 10 NonEmbedded without IR Camera	GFW0O2L	[525-BBCL] [640-BBLW] [658-BBMR] [658-BBRB] [658-BCUV] [658-BEHG]	1003

Item total: $9,163.44

Category	Description	Code	SKU	ID
Operating System Recovery Options	OS-Windows Media Not Included	GLA9OQ1	[620-AALW]	200013
ENERGY STAR	ENERGY STAR Qualified	G6J34SM	[387-BBLW]	122
Dell Endpoint Security	Dell Encryption Personal, 1 Year	PDPE1Y	[421-9984] [954-3455]	593
LCD	OptiPlex All-in-One Non-Touch Panel	GP3NLIA	[391-BBDM]	760
Image Restore	Dell Backup and Recovery	GOIRK29	[658-BCUV]	200076
FGA Module	No FGA	NOFGA	[817-BBBB]	572
Video Card	Intel® Integrated Graphics	GZQDA24	[490-BBFG]	6
Hard Drive	M.2 128GB Class 35 Solid State Drive	G4YBCUQ	[400-BEYC] [412-AALV] [773-BBBJ]	8
External Optical Device	No External ODD	GVTOW4N	[429-ABGY]	317
Placemat	Setup and feature guide for 7470AIO	G26BFX4	[340-CMLL]	60
Processor Label	Intel® Core ™ i5 Processor Label	GBYUG7C	[340-CKVN]	749
Documentation	Safety, Environmental, and Regulatory I nformation (English/French/Multi-lang uage)	G7RB0GY	[340-AGIK]	21
EAN/UPC Label	No UPC Label	G8WGTYN	[389-BCGW]	292
TPM Security	Trusted Platform Module (Discrete TP M Enabled)	GJMDKT6	[329-BBJL]	297
Optane	No Optane	GGALRD0	[400-BFPO]	200304
Order Information	US No Canada Ship Charge	G3IA0L8	[332-1286]	111
Raid Connectivity	NO RAID	GX5Q06T	[817-BBBN]	1009
Transportation from ODM to region	Standard shipment	GQT8IGC	[800-BBIO]	200080
Intel Responsiveness Technologies	No Intel Rapid Start or Smart Connect	GOC5TYG	[409-BBCF]	707
Protect Your New PC	No Security Software	NOSS	[650-AAAM]	1014
Label	Regulatory Label 7470 AIO	G2TBACR	[389-DPBE] [389-DPYO]	676
Shipping Material	Package MOD for DAO Fixed/HAS con fig or no stand config	G9ZEIP7	[340-CEJU] [389-BBUU]	465
Power Cord	System Power Cord (US)	GA5894N	[450-AAOJ]	20
Hardware Support Services	5 Years ProSupport Plus with Next Bus iness Day Onsite Service	PPN5	[997-6870] [997-6942] [997-6952] [997-6962] [997-6982] [997-8367]	29

Savings: $6,108.96

Subtotal (8): $9,163.44

Savings	$6,108.96
Subtotal (8)	**$9,163.44**

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NORTHWESTERN STATE
DEPARTMENT OF BIOLOGY, MICROBIOLOGY, & VETERINARY TECHNOLOGY

To the selection committee,

Please accept this letter of support for the proposal submitted by Dr. Wanda Goleman. The requested computers are an integral part of our anatomy and physiology curriculum and they impact approximately 400 students an academic year and will replace the existing units that are ~10 years old. The computers are used to operate Biopac software that allows for students to collect real-time measurements of multiple body functions such as cardiovascular physiology, electromyograms, pulmonary function studies, nerve physiology, reaction times, and digestive physiology.

This proposal has the School of Biological and Physical Sciences full support.

Thank you,

CHRISTOPHER N. LYLES, Ph.D.
INTERIM DIRECTOR AND ASSISTANT PROFESSOR
Northwestern State University
Bienvenu Hall | Rm 112
Northwestern State University of Louisiana
Natchitoches, LA 71497

NORTHWESTERN STATE
COLLEGE OF ARTS AND SCIENCES

November 21, 2019

Dear Student Technology Grant Committee:

I am writing this letter in support of Dr. Wanda Goleman's to replace the computers in the human anatomy and physiology laboratory located in Bienvenu Hall Room 304. This replacement is essential to allow the continued use of the Biopac technologies typically utilized in this laboratory. The Biopac system allows students to conduct physiology-experiments such as electrocardiogram and blood pressure analyses. The experiences gained from using such equipment will help these students better prepare for careers in the medical field.

The School of Biological and Physical Sciences does currently collect lab fees for some courses, but those fees are used to purchase consumables that are used in educational laboratories, and those fees have not been adjusted for inflation in over 15 years. The funds are not sufficient to purchase larger pieces of equipment like a computers. Additional funding sources are required to keep our laboratories outfitted with current technologies to provide our students with the best educational experience.

Dr. Goleman has my full support in the submission of this grant proposal. I trust that you will give her every consideration as she 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

Francene J. Lemoine, Ph.D.
Interim Dean and Professor
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