

**LOUISIANA BOARD OF REGENTS  
BOARD OF REGENTS SUPPORT FUND**

**REVIEW OF COMPETITIVE PROPOSALS SUBMITTED FOR FUNDING  
CONSIDERATION IN THE DEPARTMENTAL ENHANCEMENT  
PROGRAM**

**FY 2018-19 COMPETITION**

**March 23, 2019**

**REPORT OF THE FINAL PANEL BOARD OF REGENTS SUPPORT FUND RESEARCH  
DEPARTMENTAL ENHANCEMENT PROGRAM  
FY 2018-19**

**BACKGROUND INFORMATION**

One hundred and fifty-five (155) proposals requesting a total of \$20,463,538 in first-year funds were submitted for funding consideration in fiscal year (FY) 2018-19 to the Departmental Enhancement Program of the Board of Regents Support Fund (BoRSF). Nine disciplines were eligible, including Arts, Business, Chemistry, Computer & Information Sciences, Earth & Environmental Sciences, Education, Engineering A, Mathematics, and Targeted Workforce.

As described in the 2018-19 Departmental Enhancement Request for Proposals (RFP), academic units at eligible institutions could submit two types of proposals: Comprehensive Enhancement proposals, which could request up to \$1,000,000 over five years; and Targeted Enhancement proposals, which could request up to \$250,000 for one year. Individual academic units could submit only one (1) Comprehensive Enhancement proposal, though there were no restrictions on the number of Targeted Enhancement proposals submitted. An institutional screening committee consisting of, at minimum, an administrative representative from the academic unit, an institutional academic officer, and a representative from the campus's sponsored programs office, was required to approve the selection of Comprehensive Enhancement submissions for each academic unit, as well as approve and rank Targeted Enhancement submissions in order of priority to the submitting academic unit. Overall, twenty-three (23) Comprehensive Enhancement proposals and one hundred thirty-two (132) Targeted Enhancement proposals were submitted. The 2018-19 RFP noted that only one to three Comprehensive Enhancement proposals could be selected for funding due to limited monies available and high long-term commitment of dollars required.

**THE REVIEW PROCESS**

The one hundred fifty-five (155) proposals submitted were subjected to a two-round review process. During the first round of review, proposals were assigned to one (1) of nine (9) discipline-based panels and evaluated by two of twenty-six (26) total reviewers. The first-round panels submitted their reviews and rankings, including a list of highly recommended proposals, to the final panel for consideration.

The final panel consisted of five members: Zerihun Assefa, Professor and Head, Chemistry Department, North Carolina A&T State University, Chair; Gerard Caneba, Professor of Chemical Engineering, Michigan Tech University; Virginia Rougon Chavis, Professor of Art, University of Mississippi; Bongsik Shin, Professor, Management and Information, San Diego State University; and Cynthia Sims, Professor and Associate Dean for Academic and Student Affairs, Interim Chair of Workforce Education and Development, Southern Illinois University.

The final panel exchanged materials and communications during March 2019 via email. After a final video conference, the panel highly recommended three (3) Comprehensive Enhancement proposals for a total of \$590,000 in first-year funds, and twenty (21) Targeted Enhancement proposals for a total of \$1,763,068 in first-year funds, based on monies projected to be available. Overall, twenty-four (24) Departmental Enhancement proposals are recommended for total support of \$2,353,068 in first-year

funds. For the three (3) Comprehensive Enhancement proposals highly recommended for funding, a total of \$1,894,398 was recommended over five years.

Given funding constraints in the BoRSF, no additional proposals are recommended for funding. Each unsuccessful applicant will receive in July 2019 the first-round panel and, if applicable, final panel assessments, including scores, for the proposal(s) submitted.

Table I of this report contains the rank-order list of Comprehensive Enhancement proposals highly recommended for funding by the Final Panel. Table II contains the rank-order list of Targeted Enhancement proposals highly recommended for funding by the final panel. Table III lists the members of the final panel, and Table IV lists the members and contributing consultants of the nine (9) first-round review panels. These are followed by a compilation of written comments made by the final panel with additional contributions from first-round panelists. These are presented in rank order for Comprehensive Enhancement proposals, followed by Targeted Enhancement proposals. Appendix A contains a list of all Departmental Enhancement proposals submitted, and Appendix B contains the rating form used by all consultants to evaluate proposals.

**Table I****Comprehensive Enhancement: Highly Recommended for Funding**

<b>Rank</b>	<b>#</b>	<b>Institution</b>	<b>Discipline</b>	<b>1st-YR Request</b>	<b>1st-YR Recommendation</b>	<b>Total Request</b>	<b>Total Recommendation</b>
1	010ENH-19	Louisiana Tech	Arts	\$215,200	\$200,000	\$338,700	\$323,500
2	007ENH-19	LSU	Chemistry	\$297,103	\$290,000	\$990,214	\$883,339
3	012ENH-19	Nicholls State	Engineering A	\$300,000	\$100,000	\$887,509	\$687,509
<b>Total</b>				\$812,303	\$590,000	\$2,216,423	\$1,894,348

**Table II**  
**Targeted Enhancement: Highly Recommended for Funding**

Rank	#	Institution	Discipline	1st-YR Request	1st-YR Recommendation
1	050ENH-19	LSU	Earth & Environmental	\$128,447	\$123,447
2	087ENH-19	Nicholls State	Arts	\$17,584	\$17,584
3	025ENH-19	BRCC	Targeted Workforce	\$61,933	\$61,933
4	132ENH-19	ULL	Computer & Information	\$111,495	\$111,495
5	134ENH-19	ULL	Earth & Environmental	\$87,945	\$87,945
6	058ENH-19	LSU-Shreveport	Earth & Environmental	\$11,985	\$11,985
7	106ENH-19	SLU	Business	\$88,208	\$88,208
8	027ENH-19	Centenary	Arts	\$27,366	\$27,366
9	104ENH-19	SLU	Arts	\$42,334	\$42,334
10	054ENH-19	LSU	Arts	\$147,999	\$110,000
11	066ENH-19	Louisiana Tech	Chemistry	\$200,000	\$196,351
12	094ENH-19	Northwestern St	Chemistry	\$116,150	\$116,150
13	086ENH-19	Nicholls State	Mathematics	\$75,342	\$75,342
14	108ENH-19	SLU	Chemistry	\$30,448	\$30,448
15	126ENH-19	Tulane	Engineering A	\$186,900	\$180,000
16	097ENH-19	Northwestern St	Arts	\$66,809	\$66,809
17	144ENH-19	ULL	Education	\$106,452	\$56,452
18	037ENH-19	LSU Ag	Targeted Workforce	\$64,500	\$64,500
19	024ENH-19	BRCC	Engineering A	\$59,371	\$59,371
20	080ENH-19	McNeese State	Computer & Information	\$91,148	\$91,148
21	033ENH-19	Fletcher TCC	Targeted Workforce	\$154,510	\$144,200
<b>Total</b>				<b>\$1,876,926</b>	<b>\$1,763,068</b>

**Table III**  
**2019 Departmental Enhancement Final Review Panel**

<b>Name</b>	<b>Institution</b>	<b>Specialty</b>
Zerihun Assefa	North Carolina A&T State University	Chemistry
Gerard Caneba	Michigan Tech University	Chemical Engineering
Virginia Rougon-Chavis	University of Mississippi	Graphic/Web Design
Bongsik Shin	San Diego State University	Management Information Systems
Cynthia Sims	Southern Illinois University	Workforce Education

**Table IV**  
**2019 Departmental Enhancement First-Round Review Panels**

Name	Institution	Specialty
<b>Arts</b>		
Virginia Rougon-Chavis	University of Mississippi	Graphic/Web Design
Marla Schweppe	Rochester Institute of Technology	Digital Design
Daniel Abrahams	University of Arkansas	Music Education
Bradley Meyer	Stephen F. Austin	Percussion Studies
Dan Pfiefer	Middle Tennessee State University	Audio Engineering
Brandon Vaccaro	University of Massachusetts-Lowell	Sound Recording Technology
John Fleming	Texas State University	Theatre History
Penelope Hasekoester	Stephen F. Austin	Acting & Directing
<b>Business</b>		
Nitish Singh, chair	St. Louis University	International Business
Scott Schaefer	University of Utah	Business Administration
<b>Chemistry</b>		
Wei You, chair	University of North Carolina	Polymer Chemistry
Maria Ngu-Schwemlein	Winston-Salem State University	Medicinal/Organic Chemistry
Robert Strongin	Portland State University	Organic Chemistry
<b>Computer &amp; Information Sciences</b>		
Steve Tate, chair	University of North Carolina Greensboro	Cryptography
Jaudelice de Oliveira	Drexel University	Computer Engineering
<b>Earth &amp; Environmental Sciences</b>		
David Eggleston, chair	North Carolina State University	Marine Sciences
Natasha Dimova	University of Alabama	Environmental Geochemistry
<b>Education</b>		
Angela Wiseman, chair	North Carolina State University	Literacy Education
Donna Gee	Angelo State University	Instructional Technology
<b>Engineering A</b>		
Chris Cherry, chair	University of Tennessee	Civil Engineering
Shaikh Ahmed	Southern Illinois University	Electrical Engineering
Brandon Weeks	Texas Tech	Chemical Engineering
<b>Mathematics</b>		
Hema Srinivasan, chair	University of Missouri	Commutative Algebra
Robin Blankenship	Morehead State University	Topological Graph Theory
<b>Targeted Workforce</b>		
Larry Warford, chair	League for Innovation in the Community College	Workforce Development
Russell Hamm	Individual Consultant	Workforce Development

**FY2018-19 Departmental Enhancement**  
**Comprehensive Enhancement Proposals Highly Recommended for Funding**

**Ranking:** #1 in Comprehensive Enhancement

**Proposal #:** 010ENH-19     **Institution:** Louisiana Tech University     **Discipline:** Arts

**Title:** Howard Center for the Performing Arts Power and Lighting Enhancement

**Total Requested:** \$338,700.00 (Year 1: \$215,200.00, Year 2: \$123,500.00)

**Total Recommended:** \$323,500.00 (Year 1: \$200,000.00, Year 2: \$123,500.00)

Louisiana Tech seeks to replace the Howard Center's outdated lighting system, which was installed in 1983. The update to LED is appropriate, is more cost-efficient, and allows for dimmer switch capabilities. The switch will provide a long-term savings in energy costs, and in turn improve the existing program across the board. The goals are specific and point directly to the mission of the institution. This upgrade to the lighting system will help educate students and also improve the experience for visitors in the community who attend performances. The proposal is concise and directly addresses the departmental mission's goals and objectives in a measurable way. The timeline of two years is appropriate and reasonable to complete the upgrade. Existing infrastructure and equipment will be utilized as appropriate. The impact of this upgrade is a natural one of technological progress. The venue hosts 130 events per year, serving approximately 26,000 individuals in the community. While the proposal is not entirely clear on specific metrics that will be used for the evaluation, it is understood that the requested equipment will make a significant difference in the program via the employability of the students and creative research of faculty members. Reduced funding of \$200,000 is recommended in the first year. Reductions may be made at the discretion of the PI. The equipment match must be maintained in full, though indirect costs may be reduced proportionately. Full funding is recommended in year two.

**Ranking:** #2 in Comprehensive Enhancement

**Proposal #:** 007ENH-19     **Institution:** Louisiana State University and A&M College

**Discipline:** Chemistry

**Title:** Enhancing the Capabilities of the Shared Laboratory for Macro- and Bio  
Macromolecular Research [SLMBR]

**Total Requested:** \$990,214 (Year 1: \$297,103; Year 2: \$196,070; Year 3: \$199,772; Year 4: \$149,815; Year 5: \$147,454)

**Total Recommended:** \$883,339 (Year 1: \$290,000; Year 2: \$196,070; Year 3: \$100,000; Year 4: \$149,815; Year 5: \$147,454)

This proposal seeks nine instruments to enhance and modernize a multiuser facility at LSU that serves researchers in chemistry, biology, engineering, and materials science. The equipment upgrade effort is much needed for a modern macro/biomolecular-capable research institution. The current challenge for the shared laboratory has been to update some of the antiquated instrumentation. The multiuser nature of the facility will facilitate collaborative research and provide a platform to train students in a multidisciplinary environment. A timeline is in place to order and install the requested instruments over the five-year period of the grant (one in the first



year, two each in the second and third years, one in the fourth year, and two in the fifth year) along with the training and support plans to insure optimal integration of the equipment. It would absolutely enhance the research competitiveness of LSU.

The proposal is well organized and persuasive and, given the highly experienced researchers assembled in the facility, the likelihood of success is great. However, the panel has specific reservations about the plan in year 3 to set up the size exclusion chromatograph with differential refractive index and a multi-angle light scattering detector (SEC-DRI-MALS). This would be of marginal benefit to the proposed project as compared to an instrument that only has the DRI detector. DRI is not very sensitive to these variabilities, compared to  $dn/dc$  in MALS; derivatives from measured data are always harder to accurately determine compared to non-differentiated data. Another detector system, such as a GPC-FTIR or the SEC that uses a hyphenated DRI-FTIR detector, would provide better results at reasonable cost. Partial funding of \$290,000 is recommended in year one, and a partial amount of \$100,000 is recommended in year three, with reductions to be made at the discretion of the PI. The institutional matches, which consist of salary support and indirect costs, may be reduced proportionately where necessary. Full funding is recommended in years two, four and five.

**Ranking:** #3 in Comprehensive Enhancement

**Proposal #:** 012ENH-19   **Institution:** Nicholls State University   **Discipline:** Engineering A  
**Title:** Enhancement of Coastal Louisiana Research and Workforce Infrastructure by  
Building on the Expertise of Unmanned Aerial Systems [UAS] Technology  
Established at Nicholls and Tulane Universities

**Total Requested:** \$887,509 (Year 1: \$300,000; Year 2: \$196,685; Year 3: \$199,339; Year 4: \$191,485)

**Total Recommended:** \$687,509 (Year 1: \$100,000; Year 2: \$196,685; Year 3: \$199,339; Year 4: \$191,485)

Funds are requested to enhance research and education infrastructure in the use of Unmanned Aerial Systems (UAS) in a collaborative effort between Nicholls State's Geomatics, Marine and Environmental Biology programs and Tulane's Departments of Earth and Environmental Science, River-Coastal Science and Engineering and Global Environmental Health. The project aims to make Nicholls State a leader within Louisiana, and potentially the country, in UAS training. Adding UAS capacity to Tulane, and complementing Nicholls' UAS strengths with water quality and health analysis are sizeable opportunities to expand on important projects, with a potential major impact. The project will also substantially aid recruiting and retention of students. Issues related to the training for part 107 certification should be cleared up. Issues involving the FAA May 4, 2016 memo covering many aspects of flying drones at universities for faculty and students should also be resolved. Students can fly as part of a class as long as the class is not specifically for training the student how to fly. Since one of the classes is specifically on training to fly, many aspects of section 336 differ and the university may be getting into a situation where they are now a commercial enterprise requiring different licensing. While it is a strength that the university has an FAA Certificate of Waiver, another main concern is that the investigators are asking for nearly \$500,000 in drones alone. It would make sense at this stage to focus on training and purchase of software/workstations along with acquiring a few lower-priced drones for real operations. In addition, it is surprising that there is no request for supplies, which

will be crucial for sustainability both short and long term. Focusing on a single research task with an emphasis on training, software and sustainability would greatly enhance impact. The project does present a unique opportunity to invest in coastal defense for the State of Louisiana and the country as a whole. Partial funding of \$100,000 is recommended in year one, due to limited available funds and the unresolved issues noted above. There is no institutional match in year one. A reduced workload at the outset will provide an opportunity for the team to consider panel recommendations and maximize the project's efficiency in subsequent years, for which full funding is recommended.

### **FY2018-19 Departmental Enhancement**

#### **Targeted Enhancement: Proposals Highly Recommended for Funding**

**Ranking:** #1 in Targeted Enhancement

**Proposal #:** 050ENH-19      **Institution:** Louisiana State University and A&M College

**Discipline:** Earth & Environmental Sciences

**Title:** Acquisition of a Dedicated Mass Spectrometer for Sulfur Isotope Analysis in Research and Analytical Services

**Requested:** \$128,447      **Recommended:** \$123,447

LSU's Department of Oceanography and Coastal Sciences seeks to acquire a mass spectrometer to measure sulfur (S) isotopes for various research and analytical services activities. The new instrument will replace an outdated, inoperable, and non-repairable instrument. The timeline of the proposal is efficient. Preparations by the PIs have already been made to speed up the implementation of the new instrument. A compelling argument for having the instrument in house is made based on the current costs of outside S-isotope analyses. The team is well qualified and the work this proposal will support is of high priority for the department and LSU. Partial funding of \$123,447 is recommended with reductions to be made at the discretion of the PI. The institutional match may be reduced proportionately.

**Ranking:** #2 in Targeted Enhancement

**Proposal #:** 087ENH-19      **Institution:** Nicholls State University      **Discipline:** Arts

**Title:** Fume Extraction Enhancement for Painting and Printmaking

**Requested:** \$17,584      **Recommended:** \$17,584

The Department of Art at Nicholls State University requests an upgrade to the existing fume filtration systems in the painting and printmaking studios. The existing two portable systems are twenty years old and outdated to the extent that the filters are no longer available in the market. The requested upgrade is essential to keep the department in compliance with OSHA and their national accrediting agencies, SACS-COC and NASAD. As safety is the defining issue of the request, the final panel strongly believes that it must be addressed. The impact is obvious for all faculty and student users. Maintaining the new equipment could potentially cost less, as the technology has improved. Full funding is recommended.

**Ranking: #3 in Targeted Enhancement**

**Proposal #: 025ENH-19      Institution: Baton Rouge Community College**

**Discipline: Targeted Workforce**

**Title: Picture Archive Communication System Training**

**Requested: \$61,933      Recommended: \$61,933**

BRCC's Sonography Department seeks to provide students with industry-quality skills in order to improve employability by acquiring a Picture Analysis and Communication System. This will update the delivery of sonography training to current industry standards. One of the objectives of this proposal involves increasing the number of students with a GPA of 3.5 or higher by 5% through the enhancement of the twelve courses impacted by the use of the new equipment. The second objective involves increasing the employability rate for medical sonography graduates by 5% from the current 90%, to 95%. The proposal provides a strong rationale for the need for educational and professional development of this population: a workforce gap of 40 sonographers each year due to the few educational programs in sonography. Moreover, an anticipated 20% growth in sonographer positions in Louisiana by 2026 is predicted. An advisory committee will observe students and faculty using the new equipment and collect feedback on the process in order to determine the effectiveness of its use and its impact on student learning. Full funding is recommended.

**Ranking: #4 in Targeted Enhancement**

**Proposal #: 132ENH-19      Institution: University of Louisiana at Lafayette**

**Discipline: Computer & Information Sciences**

**Title: Equipment for Virtual Reality Research, Education, and Outreach**

**Requested: \$111,495      Recommended: \$111,495**

The School of Computing and Informatics at UL Lafayette seeks to obtain virtual reality (VR) equipment, extend its software framework, and initiate new VR/AR research. The PI has a strong track record. The expected impacts of the proposed project are systematically documented from many different angles, including curriculum/instruction, research, STEM workforce, faculty development and economic impact. The team has accumulated experience with grant-driven research and community engagement, and is in a position to make a difference across this spectrum. The budget is well developed, including details on necessary hardware and software, and justification of the need for them. Some objectives (especially 4 and 5) will be difficult to measure as evaluation plans are not described well and need to be considered during project implementation. Although the sustainability plan also lacks details, the PI's track record of maintaining and operating his VR lab for 16 years gives a strong indication that he will be able to sustain the lab after the proposed software and hardware are deployed. Full funding is recommended.

**Ranking:** #5 in Targeted Enhancement

**Proposal #:** 134ENH-19      **Institution:** University of Louisiana at Lafayette

**Discipline:** Earth & Environmental Sciences

**Title:** Targeted Enhancement: Acquisition of a Laser Diffraction Particle Size Analyzer for Research, Education, and Training in Earth and Energy Sciences

**Requested:** \$87,945      **Recommended:** \$87,945

The School of Geosciences at UL Lafayette seeks to acquire a particle size analyzer which will complement existing instrumentation and facilities. The goals and objectives are clear, and the timeline of the project is well described. A clear vision is laid out for how the instrument will be implemented in current and future research projects, and integrated into the curriculum. The proposal articulates a strong plan for sustainability. The instrument will be maintained by a PhD-level technician who will be trained by the manufacturer. The team members have experience with the instrument. Overall this is a well-written proposal with strong justification and full funding is recommended.

**Ranking:** #6 in Targeted Enhancement

**Proposal #:** 058ENH-19      **Institution:** LSU Shreveport

**Discipline:** Earth & Environmental Sciences

**Title:** Pure Water System to Enhance Teaching and Research at LSUS

**Requested:** \$11,985      **Recommended:** \$11,985

The Departments of Chemistry and Biological Sciences at LSU Shreveport seek a new Millipore deionized water (DIW) system to replace a completely degraded older system. A strong justification is articulated in terms of the need for teaching laboratory courses in both Chemistry and Biology. The lack of a reliable DIW system is very problematic for the basic functioning of the two departments, specifically the lab courses. Having hands-on courses is essential for training the future workforce in the area, which is developing a growing technology cluster in Shreveport. The School of Science has a sustainability plan in place for replacing cartridges. The upgraded system will expand opportunities to hire new faculty who will bring fresh research opportunities. The PI is very capable, and has demonstrated efficacy in operating the old system. Full funding is recommended.

**Ranking:** #7 in Targeted Enhancement

**Proposal #:** 106ENH-19      **Institution:** Southeastern Louisiana University

**Discipline:** Business

**Title:** iSale Lab: Development of an Interactive Sales and Leadership Experience Lab to Improve Student Readiness and Increase Employment Opportunity

**Requested:** \$88,208      **Recommended:** \$88,208

The Department of Marketing and Supply Chain Management at SLU seeks funds to convert space in the College of Business into a multi-faceted interactive learning facility. The goals and objectives are clear, well-thought-out, and achievable. They are aligned well with the missions of the unit and larger College, as well as the institution's Real-World Ready initiative for students. The systematic delineation of the goals and objectives is one of the best among all proposals

reviewed. The potential impact on elevating the curriculum and instructional effectiveness is noted. The existing and proposed facilities presented in images in Appendix A are a great help to visualize the entire project. The proposed activities are a part of a larger undertaking to create an iSale facility, for which the University's matching funds, industry sponsors, and private-sector support for the construction will be combined. The institutional and community-level support for the iSale Lab initiative underscores the strong commitment to long-term success. The PI articulates various statistics-driven facts to support a meaningful impact argument, which is largely missing from other proposals. The strong motivation for long-term sustainability is clearly demonstrated. The sustainability plan is relatively concrete (e.g., the proposed Director to oversee iSale Lab, certificate program, rental fees) and future prospects (e.g., ongoing and future private sector sponsorship, commitment by Southeastern Development Foundation) are well documented. The annual cost of technology maintenance is estimated and will be covered by ongoing and future revenue sources. For evaluation, measurability is not clearly stated but the review of objectives indicates that measuring outcomes will not be challenging due to the clear definitions of the objectives whose assessments will consist of a simple yes or no. Full funding is recommended.

**Ranking: #8 in Targeted Enhancement**

**Proposal #: 027ENH-19      Institution: Centenary College      Discipline: Arts**  
**Title: Studio Art Instructional Space Enhancement: Improving Pedagogy, Safety, and Accessibility**  
**Requested: \$27,366      Recommended: \$27,366**

The Department of Art & Visual Culture at Centenary College seeks to improve safety and accessibility in the sculpture studio, as well as update teaching tools such as wirelessly enabled projectors in the drawing and painting classrooms. The woodshop in sculpture needs a dust-collection system that connects directly to the new woodshop equipment. The updated air filtration systems in the sculpture and ceramics studio will filter fine dust/mineral particles. These improvements are in line with the mission of the institution. The dust collection system is an absolute necessity for the health and safety of everyone who uses the building and the pedagogical improvements are crucial for a successful learning environment. These enhancements are necessary to any department in the arts. This proposal has a very stable sustainability plan that fits within the department budget, and will lower costs in the future. The faculty members involved are credentialed and capable of maintaining the new systems. Full funding is recommended.

**Ranking: #9 in Targeted Enhancement**

**Proposal #: 104ENH-19      Institution: Southeastern Louisiana University      Discipline: Arts**  
**Title: Dance/Movement Studies Studio Enhancement**  
**Requested: \$42,334      Recommended: \$42,334**

The Department of Music and Performing Arts at SLU seeks to replace original lights (from 1971), which are no longer operational, in the Dance/Movement Studios. The goals are straightforward, reasonable and directly related to the daily use of the space. Since this is the only dedicated classroom space and technology dance lab on campus, the lights and curtains are necessary for the student work and performances. The impact reaches to students, faculty, staff and all who enter the arts facilities. Although the evaluation metrics are not specific, anyone utilizing the space will notice a significant difference. The proposal has a very stable sustainability plan that fits within

the department budget, and will lower costs in the future. The requested equipment will be much easier to maintain and the selected items will last well into the future. The budget seems well developed and designed to make the most of the items requested. The team is experienced and capable. Full funding is recommended.

**Ranking: #10 in Targeted Enhancement**

**Proposal #: 054ENH-19      Institution: Louisiana State University and A&M College**

**Discipline: Arts**

**Title: Exhibition Gallery Enhancement for the Textile Arts**

**Requested: \$147,999      Recommended: \$110,000**

The Department of Textiles, Apparel Design, and Merchandising seeks exhibition enhancements to a recently acquired building wing that is being converted into a new, larger LSU Textile & Costume Museum exhibition gallery. This is a four-fold enhancement of the former space, with a dedicated exterior visitor entrance. The new space is exciting, but needs to be brought to museum standards to exhibit 2D and 3D textile art. The proposal requests funding for secure, movable exhibition cases; a movable, modular wall display system; a flexible wall mounting system; and communications technology for exhibition interpretation. With the updates, larger exhibitions, educational enhancements and new research opportunities will be possible, while allowing the current space to become a teaching/research area (for 30 students, rather than 10) in which artifacts can be easily accessed. An opening exhibition on Mayan textile arts is already scheduled and will be executed in collaboration with the University of South Florida Library. The impact reaches to students, faculty, staff and the community at large. This proposal has a very stable sustainability plan and the systems are modular. The faculty members involved are credentialed and capable of maintaining the equipment. Partial funding of \$110,000 is recommended with reductions to be made at the PI's discretion.

**Ranking: #11 in Targeted Enhancement**

**Proposal #: 066ENH-19      Institution: Louisiana Tech University      Discipline: Chemistry**

**Title: Acquisition of a 400 MHz NMR Spectrometer for Enhancing Education and Undergraduate Research at Louisiana Tech University**

**Requested: \$200,000      Recommended: \$196,351**

The Chemistry program at Louisiana Tech seeks to enhance its educational infrastructure and curriculum with acquisition of a high-field NMR spectrometer. The objectives are to provide students with hands-on practical experience with the instrument, improve curriculum and courses, and facilitate increased research. The incorporation of the equipment into teaching is clearly explained and consistent with the goals and objectives. The utility for research projects is also aligned with the goals, but details related to use in specific projects are generally lacking. The objectives are mostly reasonable, achievable and related to the mission statement, although hands-on experience may be somewhat limited and proficiency in oral and written communication may only be marginally impacted. A clear, compelling timeline is provided, with complete assignments of responsibilities for installation and usage of the instrument. This project will be significant in elevating the unit's existing resources, enhancing instructional lab courses, and supporting the development of new courses in the curriculum. The unit has two benchtop NMRs that are limited to liquid samples. The requested 400 MHz NMR would be a substantial enhancement. Having a



400 MHz or comparable instrument is an absolute requirement for a chemistry department to operate a quality up-to-date program. The PI and Co-PIs have excellent backgrounds in various areas of expertise to implement the work plan successfully. Partial funding of \$196,351 is recommended with reductions to be made at the PI's discretion.

**Ranking:** #12 in Targeted Enhancement

**Proposal #:** 094ENH-19     **Institution:** Northwestern State University

**Discipline:** Chemistry

**Title:** Enhancement of Undergraduate Scholarship through Nuclear Magnetic Spectroscopy

**Requested:** \$116,150     **Recommended:** \$116,150

Northwestern State's School of Biological and Physical Sciences seeks to enhance undergraduate teaching and research by acquiring a new 80 MHz NMR instrument that would replace the current dysfunctional 40 MHz system. This will have a strong impact on many fronts, and is clearly related to the institutional mission. The unit is currently attempting to expand its chemistry focus to revive a lost major. Student and faculty commitment to this goal is well articulated, but it cannot be accomplished without a functional NMR for teaching and research, as the instrument is needed for ACS certification. Having an NMR is also clearly in keeping with the unit's mission of inspiring students with instructional methods. With the recent approval of a chemistry concentration for the physical science program, an influx of students is expected. These students will need access to the instrument. The benchtop instrument is an excellent choice, requiring far less maintenance than typical NMR models. Full funding is recommended.

**Ranking:** #13 in Targeted Enhancement

**Proposal #:** 086ENH-19     **Institution:** Nicholls State University     **Discipline:** Mathematics

**Title:** Flexible, Collaborative Learning Environment for Improving Mathematics Success of STEM Students

**Requested:** \$75,342     **Recommendation:** \$75,342

The Department of Mathematics at Nicholls State University seeks to enhance classroom infrastructure to improve learning for STEM, business and education majors. This is a well-crafted proposal, with an efficient budget and well-articulated needs. Clearly there will be high impact for Louisiana from improving teacher candidate education. The team and larger department have a strong track record of successfully securing and implementing grants. The timeline for obtaining the necessary equipment and training is compelling and achievable. The program is focused on students who traditionally struggle with college Algebra, a gateway course for STEM majors. Additionally, the University serves a student body with the highest percent of first-generation applicants among Louisiana's public universities, so there is a need for additional support for these students. The planned improvement of facilities and the curriculum is pedagogically sound in that it combines a variety of methods to assist students in their learning, including traditional approaches, online practice, and hands-on experiences. The department has thoroughly evaluated its resources and contributed to the project with existing materials. Creating the new lab will positively affect three classrooms. The description of what the department has on hand and is planning to repurpose is detailed and impressive. Full funding is recommended.

**Ranking:** #14 in Targeted Enhancement

**Proposal #:** 108ENH-19      **Institution:** Southeastern Louisiana University

**Discipline:** Chemistry

**Title:** Upgrading the Technology Infrastructure of Southeastern's Chemistry and Physics Department

**Requested:** \$30,448

**Recommended:** \$30,448

The goals of the proposal are (a) to improve the educational efficacy for students; (b) to alleviate demand placed on the department due to an increased number of students serviced by the department on a daily basis; and (c) to improve the faculty's ability to educate students in fundamental chemical concepts and mathematical techniques. The objective is to acquire needed hardware and software to upgrade the computer facilities, with three project goals being clearly identified: improving educational efficacy for the department's majors by upgrading computer facilities with new hardware and software; alleviating demand on the department by replacing old computers; and improving the faculty's ability to educate students in fundamental chemical concepts and mathematical techniques by providing videos. The total of potential students impacted by this project is 4,300, nearly one-third of Southeastern's student body. Current computers are, indeed, very old and have been in high demand. It is unclear, however, how much usage is anticipated for the requested machines. The applicants should provide a table detailing how much time each machine has been used. The anticipated impact in various areas is compelling for the computer replacement and the video equipment in general terms. It should be expected that most of the chemistry and physics students will benefit. Overall, the PI and co-PI have excellent backgrounds in the project areas and are expected to implement the work plan successfully. Matching funds are committed from the institution in the amount of \$10,000. Full funding is recommended.

**Ranking:** #15 in Targeted Enhancement

**Proposal #:** 126ENH-19      **Institution:** Tulane University      **Discipline:** Engineering A

**Title:** Atomic Force Microscope for Fast Imaging and Dynamic Systems

**Requested:** \$186,900

**Recommended:** \$180,000

Tulane's Chemical and Biomolecular Engineering Department seeks to upgrade its Bruker Dimension Icon atomic force microscope (AFM) to the Bruker BioFastScan system with a unique capability. The enhancement will provide a 20-fold increase in scan speed over the current Icon scanner (reducing image acquisition time from around ten minutes to around one). The requested equipment is expected to boost the research productivity of the department as well as the University as a whole. The described projects, while being diverse and encompassing a range of application domains, have a particular focus and center around the subject of interfacial sciences. Plans for faculty development are well conceived and thought out. The acquisition of the proposed equipment has the potential to establish the group's position as a leader in the area of experimental interface sciences. Plans for strengthening ties with industry partners are commendable. A plan for performing regular maintenance and keeping the training manuals up to date is described in detail and the sustainability plan is well-conceived and -articulated. The investigators are high quality with strong funding records. They are capable in the field of AFM. Overall, the proposal is founded on a sound scientific rationale, is well written, and possesses a strong interdisciplinary character.



The final panel recommends funding of the proposal at slightly reduced level of \$180,000, with reductions to be made at the discretion of the PI. There is no institutional match.

**Ranking:** #16 in Targeted Enhancement

**Proposal #:** 097ENH-19 **Institution:** Northwestern State University **Discipline:** Arts

**Title:** Addition of World Music Ensemble Course Offerings through the Acquisition of Musical Instruments

**Requested:** \$66,809

**Recommended:** \$66,809

Northwestern State's Department of Music requests funding to initiate a steel drum band by purchasing steel drums, cases, stands, covers, mallets and sheet music. All goals are reasonable for the type of world music course and ensemble proposed, and should be easily achieved. The goals listed relate to the mission of providing cultural development, enrichment and artistic service to the students, university and community. The work plan is strong, and creates a working ensemble in a short period of time. The impact from this equipment appears to yield more diverse ensemble offerings for the program; help graduates (both undergraduate and graduate music students) attain necessary job skills; and provide substantial opportunity for the faculty members to engage in professional development. It would also allow the department to offer similar musical experiences to those of its peers, which may help in its recruitment and retention of students. The proposal would have been strengthened by including a description of the types of research studies that faculty and students at Northwestern might initiate through this proposed new course/ensemble. It is also recommended that Professor Molina work on creating evaluation opportunities for faculty, administrators, students, and community members through written/online surveys. A dedicated line item in the department's operating budget for the ensemble would help ensure the quality and longevity of the instruments in the ensemble. While funding recommendations tend to prioritize those programs already in place and with an upward trajectory, support for this new area makes sense. Full funding is recommended.

**Ranking:** #17 in Targeted Enhancement

**Proposal #:** 144ENH-19 **Institution:** University of Louisiana at Lafayette

**Discipline:** Education

**Title:** Improving Teacher Preparation through a Maker-Centered Learning Collaborative Classroom

**Requested:** \$106,452

**Recommended:** \$56,452

The Department of Curriculum and Instruction at UL Lafayette seeks to enhance pre-service teacher education. The objectives are strong. The team of faculty tasked with implementing the project are well qualified. The proposal will enhance the preparation of teacher candidates in language arts, science, mathematics, engineering design, and social studies through maker-centered learning and design thinking. It will benefit 200 Education majors and approximately 600 children each year through STEM field experiences and outreach activities. The faculty team will use this project to conduct research regarding out-of-school-time STEM, educational robotics, engaging students in scientific inquiry, and effective practices for math education, innovation and design in K-12, which are all worthy research constructs. A stronger rationale for this project

would have been beneficial, particularly providing statistical data on the need for more STEM teachers, extent of teacher shortages, extent of the minority teacher shortage, and related issues. Balancing the value of the initiative with the absence of a strong data set, the final panel recommends partial funding of \$56,452. Reductions may be made at the discretion of the PI. There was no institutional match.

**Ranking: #18 in Targeted Enhancement**

**Proposal #: 037ENH-19      Institution: Louisiana State University Agricultural Center**

**Area: Targeted Workforce**

**Title: Economic and Workforce Development in Food Manufacturing**

**Request: \$64,500**

**Recommended: \$64,500**

The School of Nutrition and Food Sciences at the LSU Ag Center aims to recruit and train undergraduate and graduate students to enhance needed workforce skills in the food manufacturing sector. The proposal targets the need for better food choices for consumers, including antibiotic-, preservative-, and hormone-free foods, and non-GMO supplies. The objectives are aimed at stimulating economic innovation through workforce development and enhanced experiential learning via private-public partnerships, as well as enhancing a food manufacturing system that promotes innovation for delivery of healthy choices. A compelling argument is made that food manufacturing positions exceed the national number of graduates by 16%, which creates a need for specialized training in the food manufacturing sector. Students will benefit from learning how to develop shelf-stable, thermally processed foods as well as gaining experiences outside of the classroom via internships with partnering organizations and applied research opportunities. The team seeks to acquire equipment needed to seal food packages, measure color quality, and provide professional development for the faculty. Full funding is recommended.

**Ranking: #19 in Targeted Enhancement**

**Proposal #: 024ENH-19      Institution: Baton Rouge Community College**

**Discipline: Engineering A**

**Title: BRCCs Project to Boost Engineering Skills**

**Requested: \$59,371**

**Recommended: \$59,371**

The Pre-Engineering Department at BRCC aims to provide quality academic research experiences appropriate for community college students planning to transfer to four-year civil, electrical and chemical engineering degree programs. By familiarizing students with specific aspects of civil and electrical engineering, the department will enable them to make better decisions regarding their electives and transfer decisions. The rationale, goals and objectives are specific, measurable, and well-scoped for this equipment. The only concern is the reach of the project: it involves only civil and electrical engineering disciplines, rather than all engineering disciplines. The impact is solely focused on students at a pivotal point in their academic careers. The ability to have low-cost, hands-on experiments is an important feature of this proposal. This project will clearly take a longer timeframe for evaluation than is suggested in the proposal. This includes assessment of transfer of students into four-year programs and the success of these students after transfer. The project team

should not measure success just by graduation, but should also focus on retention and time to graduation. If successful, the investment in this project is small enough to ultimately sustain using internal funding. The risk is small and the project is worthy. The final panel recommends full funding.

**Ranking:** #20 in Targeted Enhancement

**Proposal #:** 080ENH-19      **Institution:** McNeese State University

**Discipline:** Computer & Information Sciences

**Title:** Enhancement of Education in Internet-of-Things [IoT] Security

**Requested:** \$91,148

**Recommended:** \$91,148

Electrical Engineering and Computer Science faculty at McNeese State University seek to develop course content and hands-on laboratory education collaboratively in the areas of Internet-of-Things and cyber security. The objectives of this proposal are adequately stated and the proposed subject is important and highly topical. The PI makes a good case for the need for new equipment. The user base for the new equipment is quantified at around 160 students. The profiles of the investigator's team members indicate plenty of synergistic experience relevant to this project. The budget details are organized and well justify the equipment funding. Although details are missing, the main goal of this particular proposal is to "upgrade currently outdated equipment" in two different labs to facilitate improvements of existing and new courses in content design. The sustainability plan lacks specific details of funding sources (e.g., annual lab fees, internal grants) for ongoing maintenance and operation, and future commitment of such funding. Overall the proposal relies on just a generic program-level assessment plan (ABET-style), without tailoring the evaluation plan to the particular project. However, the main goal of the proposal is worthy and full funding is recommended.

**Ranking:** #21 in Targeted Enhancement

**Proposal #:** 033ENH-19      **Institution:** Fletcher Technical Community College

**Discipline:** Targeted Workforce

**Title:** Rebuilding Marine Diesel: Crafting our Future Workforce

**Requested:** \$154,510

**Recommended:** \$144,200

The Marine Diesel Technician Program at Fletcher Technical Community College seeks to replace outdated engines with state-of-the-art technology and equipment. The project is fully supported by industry partners on the program's advisory board, and Fletcher has provided an impressive \$118,300 match for equipment and supplies. The goals and objectives are clear and both responsive to the RFP and carefully aligned with industry requests. The technology upgrade will expand and modernize the curriculum. The impacts include faculty development and improving the employability of graduates. The team is experienced and prepared to manage the project. The evaluation plan is aligned with the goals and objectives, and will provide a meaningful measure of program development. The budget is clearly explained and demonstrates well how the investment will improve instruction. The proposal is highly compelling and will position students for high-wage, high-demand jobs. Due to limited available funds, partial funding of \$144,200 is recommended.

## **Appendix A**

### **Summary List of Proposals**

**Proposals Submitted to the Departmental Enhancement Program - Comprehensive  
for the FY 2018-19 Review Cycle**

Proposal Number	PI Name	Institution	Project Title	Primary Category	Primary Discipline	Duration	Amount Requested					
							Year 1	Year 2	Year 3	Year 4	Year 5	Total
001ENH-19	Dr. Katherine Brandl	Centenary College	Developing a Data Science Program for the Liberal Arts	Education	Mathematics	5 Year(s)	\$39,390.00	\$92,250.00	\$69,188.00	\$46,125.00	\$23,062.00	\$270,015.00
002ENH-19	Dr. Daphne Williams	Grambling State University	A College of Business Pilot Program: The Tiger Academic Support Center [TASC]	Education	Business	5 Year(s)	\$234,099.00	\$191,369.00	\$191,419.00	\$191,669.00	\$191,419.00	\$999,975.00
003ENH-19	Dr. Troy Kammerdiener	Louisiana College	Collaborative Classroom and Labs for Computer Science Program	Education	Computer and Information Sciences	1 Year(s)	\$56,472.00	\$0.00	\$0.00	\$0.00	\$0.00	\$56,472.00
004ENH-19	Prof. Oliver Dasbach	Louisiana State University and A & M College	Workforce and Research Development in Mathematics	Research	Mathematics	5 Year(s)	\$186,000.00	\$186,000.00	\$186,000.00	\$186,000.00	\$186,000.00	\$930,000.00
005ENH-19	Dr. Cynthia DiCarlo	Louisiana State University and A & M College	Workforce Development: LSU Early Childhood Leaders Program	Workforce	Education	5 Year(s)	\$237,443.00	\$188,681.00	\$189,958.00	\$191,272.00	\$192,626.00	\$999,980.00
006ENH-19	Dr. Achim Herrmann	Louisiana State University and A & M College	Enhancement of Core Research Facilities for Coastal, Earth, and Planetary Sciences at LSU	Research	Earth and Environmental Sciences	5 Year(s)	\$297,464.00	\$198,530.00	\$191,622.00	\$192,000.00	\$119,552.00	\$999,168.00
007ENH-19	Prof. Mario Rivera	Louisiana State University and A & M College	Enhancing the Capabilities of the Shared Laboratory for Macro- and Bio-Macromolecular Research [SLMBR]	Research	Chemistry	5 Year(s)	\$297,103.00	\$196,070.00	\$199,772.00	\$149,815.00	\$147,454.00	\$990,214.00
008ENH-19	Mr. Nick Bustamante	Louisiana Tech University	Enhancement of Education in Scientific Visualization at Louisiana Tech University	Education	Arts	5 Year(s)	\$245,457.00	\$128,947.00	\$142,802.00	\$79,816.00	\$51,000.00	\$648,022.00
009ENH-19	Dr. David Hall	Louisiana Tech University	Equipment for Sophomore Living With The Lab	Education	Engineering A	4 Year(s)	\$293,652.00	\$193,735.00	\$193,739.00	\$180,987.00	\$0.00	\$862,113.00
010ENH-19	Dr. Jeremy Reynolds	Louisiana Tech University	Howard Center for the Performing Arts Power and Lighting Enhancement	Education	Arts	2 Year(s)	\$215,200.00	\$123,500.00	\$0.00	\$0.00	\$0.00	\$338,700.00
011ENH-19	Dr. Ahmed Abdel-Mohti	McNeese State University	Enhancement Plan to Add Structural Engineering Laboratory for Engineering and Science Education at McNeese State University	Education	Engineering A	3 Year(s)	\$299,510.00	\$181,584.00	\$154,277.00	\$0.00	\$0.00	\$635,371.00
012ENH-19	Dr. Balaji Ramachandran	Nicholls State University	Enhancement of Coastal Louisiana Research and Workforce Infrastructure by Building on the Expertise of Unmanned Aerial Systems [UAS] Technology Established at Nicholls and Tulane Universities	Research	Engineering A	4 Year(s)	\$300,000.00	\$196,685.00	\$199,339.00	\$191,485.00	\$0.00	\$887,509.00
013ENH-19	Dr. Duane Smith	Nicholls State University	Preparing Tomorrows Scientists Today: Enhancing the Undergraduate Biochemistry Experience for Science Majors	Education	Chemistry	3 Year(s)	\$300,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$300,000.00
014ENH-19	Dr. Radian Belu	Southern University and A&M College - Baton Rouge	Enhancement of Electrical Engineering Curriculum with Energy Related Virtual and Hands-on Laboratory Instrumentation for On-site and Remote Education and Learning	Education	Engineering A	2 Year(s)	\$196,736.00	\$3,000.00	\$0.00	\$0.00	\$0.00	\$199,736.00
015ENH-19	Dr. Joycelyn Harrison	Southern University and A&M College - Baton Rouge	Who Moved My Cheese?: The Acceptance of Change, and an Active Approach to Enhancing the Southern University and A&M College School of Education's Department of Counseling and Educational Leadership Counseling Program Offerings	Education	Education	5 Year(s)	\$300,000.00	\$200,000.00	\$200,000.00	\$200,000.00	\$100,000.00	\$1,000,000.00
016ENH-19	Prof. Vanessa White	Southern University at Shreveport	Center for Excellence in Computer Information Systems	Workforce	Computer and Information Sciences	5 Year(s)	\$299,062.00	\$199,952.00	\$199,822.00	\$151,357.00	\$149,617.00	\$999,810.00
017ENH-19	Prof. Vijay John	Tulane University	Helping build Excellence in Nanoscale Science and Technology Research through Acquisition of Direct Electron Detection for High Resolution Transmission Electron Microscopy.	Research	Engineering A	5 Year(s)	\$300,000.00	\$200,000.00	\$200,000.00	\$167,474.00	\$0.00	\$867,474.00
018ENH-19	Dr. Russell Schmehl	Tulane University	Enhancement of the Molecular Sciences at Tulane	Research	Chemistry	4 Year(s)	\$300,000.00	\$200,000.00	\$200,000.00	\$79,697.00	\$0.00	\$779,697.00
019ENH-19	Dr. Prashanth Buchiredy	University of Louisiana at Lafayette	Enhancing Chemical Engineering Laboratory: Graduate students with exceptional quality ready to transition to work environment	Education	Engineering A	5 Year(s)	\$218,398.00	\$169,983.00	\$126,259.00	\$108,328.00	\$90,088.00	\$713,056.00
020ENH-19	Dr. DILIP DEPAN	University of Louisiana at Lafayette	Acquisition of FTIR chemical bond imaging microscope for advancement in chemical, materials, and biological science research and teaching	Research	Engineering A	1 Year(s)	\$91,929.00	\$0.00	\$0.00	\$0.00	\$0.00	\$91,929.00
021ENH-19	Prof. Thomas Junk	University of Louisiana at Lafayette	Enhancement of a core facility in chemistry to promote the new Ph.D. program in Earth and Energy Sciences at UL Lafayette	Research	Chemistry	5 Year(s)	\$290,245.00	\$171,381.00	\$195,222.00	\$89,370.00	\$53,218.00	\$799,436.00

**Proposals Submitted to the Departmental Enhancement Program - Comprehensive  
for the FY 2018-19 Review Cycle**

Proposal Number	PI Name	Institution	Project Title	Primary Category	Primary Discipline	Duration	Amount Requested					
							Year 1	Year 2	Year 3	Year 4	Year 5	Total
022ENH-19	Dr. Ashok Kumar	University of Louisiana at Lafayette	Comprehensive Enhancement of Computing Infrastructure for Increased Learning and Employability of Undergraduate and Graduate Students in Computing	Education	Computer and Information Sciences	5 Year(s)	\$291,211.00	\$196,151.00	\$191,802.00	\$191,802.00	\$83,057.00	\$954,023.00
023ENH-19	Dr. Arun Lakhotia	University of Louisiana at Lafayette	Enhancing Educational Programming and Training Tools in Cyber Risk Mitigation and Security	Education	Computer and Information Sciences	5 Year(s)	\$279,445.00	\$150,547.00	\$151,935.00	\$136,236.00	\$136,986.00	\$855,149.00

Total Number of Proposals submitted	23
Total Funds Requested for First Year	\$5,568,816.00
Total Funds Requested for Second Year	\$3,368,365.00
Total Funds Requested for Third Year	\$3,183,156.00
Total Funds Requested for Fourth Year	\$2,533,433.00
Total Funds Requested for Fifth Year	\$1,524,079.00
Total Funds Requested	\$16,177,849.00

**Proposals Submitted to the Departmental Enhancement Program - Targeted  
for the FY 2018-19 Review Cycle**

Proposal Number	PI Name	Institution	Project Title	Primary Category	Single/ Multidisciplinary	Primary Discipline	Amount Requested
024ENH-19	Dr. Ildar Akhmadullin	Baton Rouge Community College	BRCCs Project to Boost Engineering Skills	Education	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$59,371.00
025ENH-19	Mr. Richard Goldsmith	Baton Rouge Community College	Picture Archive Communication System Training	Workforce	Single Discipline	Targeted Workforce	\$61,933.00
026ENH-19	Ms. Chorondalette Moore	Baton Rouge Community College	BRCCs PTEC Tool School	Workforce	Single Discipline	Targeted Workforce	\$143,737.00
027ENH-19	Prof. Jessica Hawkins	Centenary College	Studio Art Instructional Space Enhancement: Improving Pedagogy, Safety, and Accessibility	Education	Single Discipline	Arts	\$27,366.00
028ENH-19	Dr. Joshua Lawrence	Centenary College	Enhanced NMR Spectroscopy in the Undergraduate Curriculum	Education	Single Discipline	Chemistry	\$200,000.00
029ENH-19	Dr. Karen Soul	Centenary College	Enhancing Teacher Education in High Need Areas	Education	Single Discipline	Education	\$60,570.00
030ENH-19	Dr. Scott Vetter	Centenary College	Sustaining and Enhancing the Geology Curriculum by acquisition of a new Inductively Coupled Plasma Mass Spectrometer [ICP-MS]	Education	Single Discipline	Earth and Environmental Sciences	\$120,875.00
031ENH-19	Dr. Ruby Broadway	Dillard University	Waterway Alliance for Training in Environmental Research [ WATER],	Education	Multidisciplinary	Earth and Environmental Sciences	\$79,682.00
032ENH-19	Dr. Christopher Jeffries	Dillard University	Business, Leadership and Economic for Undergraduates [BLEU]	Education	Single Discipline	Business	\$114,998.00
033ENH-19	Mr. Ronnie Hayes	Fletcher Technical Community College	Rebuilding Marine Diesel: Crafting our Future Workforce	Education	Single Discipline	Education	\$154,510.00
034ENH-19	Dr. Jacqueline Harris	Grambling State University	Development of Bioinformatics Training Modules for Undergraduate Chemistry Courses	Education	Single Discipline	Chemistry	\$122,300.00
035ENH-19	Prof. Danny Hubbard	Grambling State University	Improving the Chemistry Curriculum with a 2D NMR Spectrometer	Education	Single Discipline	Chemistry	\$145,000.00
036ENH-19	Dr. Adena LeJeune	Louisiana College	Business Curriculum Enhancement through the Creation of a Collaborative Quantitative Analysis Lab/Classroom	Education	Single Discipline	Business	\$79,972.00
037ENH-19	Prof. louise wicker	Louisiana State University Agricultural Center	Economic and Workforce Development in Food Manufacturing	Workforce	Single Discipline	Targeted Workforce	\$64,500.00
038ENH-19	Dr. Kristine DeLong	Louisiana State University and A & M College	Expanding Capabilities of the PAST Laboratory Housed in Geography and Anthropology with Stable Isotopic Analysis	Research	Single Discipline	Earth and Environmental Sciences	\$199,945.00
039ENH-19	Dr. Brett Dietz	Louisiana State University and A & M College	Targeted Educational Proposal: Undergraduate and Graduate Student World Percussion Ensemble	Education	Single Discipline	Arts	\$82,165.00
040ENH-19	Prof. Kunlun Ding	Louisiana State University and A & M College	Fast Synchrotron Operando X-Ray Diffraction at Extreme Conditions	Research	Multidisciplinary	Engineering A (Chemical, Civil, Electrical)	\$129,417.00
041ENH-19	Dr. William Douglas	Louisiana State University and A & M College	Creating an Archive of Cultural Production	Research	Single Discipline	Arts	\$183,200.00
042ENH-19	Dr. Brendan Harmon	Louisiana State University and A & M College	Center for Digital Craft	Education	Single Discipline	Arts	\$100,000.00

**Proposals Submitted to the Departmental Enhancement Program - Targeted  
for the FY 2018-19 Review Cycle**

<b>Proposal Number</b>	<b>PI Name</b>	<b>Institution</b>	<b>Project Title</b>	<b>Primary Category</b>	<b>Single/ Multidisciplinary</b>	<b>Primary Discipline</b>	<b>Amount Requested</b>
043ENH-19	Prof. Darrell Henry	Louisiana State University and A & M College	Wavelength-Dispersive and Cathodoluminescence Spectrometers for the JEOL 8230 Electron Microprobe: Enhanced Trace Element Micro-analysis and Cathodoluminescent Zoning in Solid-State Materials	Research	Single Discipline	Earth and Environmental Sciences	\$93,920.00
044ENH-19	Dr. Amirhosein Jafari	Louisiana State University and A & M College	Enhancement of Building Energy and Modeling Research and Education through the Acquisition of Digital Fabrication Laboratory	Research	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$144,898.00
045ENH-19	Prof. Rendy Kartika	Louisiana State University and A & M College	Modern Instrumentation for Organic Chemistry Teaching Laboratories	Education	Single Discipline	Chemistry	\$199,404.00
046ENH-19	Prof. David Kirshner	Louisiana State University and A & M College	Computational Thinking for STEM Teacher Leadership Training at LSU	Education	Multidisciplinary	Education	\$104,164.00
047ENH-19	Dr. Kory Konsoer	Louisiana State University and A & M College	Acquisition of a shallow water sonar system to enhance riverine and coastal research and education	Research	Multidisciplinary	Earth and Environmental Sciences	\$175,123.00
048ENH-19	Dr. David Koppelman	Louisiana State University and A & M College	Enabling Technologies for Machine Learning, Ray Tracing, and Accelerated Computation Investigations	Research	Multidisciplinary	Engineering A (Chemical, Civil, Electrical)	\$144,600.00
049ENH-19	Dr. Kanchan Maiti	Louisiana State University and A & M College	Mechanistic understanding of ocean acidification and carbon fluxes in marine and coastal systems - a tool for research and education	Research	Single Discipline	Earth and Environmental Sciences	\$105,800.00
050ENH-19	Dr. Michael Polito	Louisiana State University and A & M College	Acquisition of a Dedicated Mass Spectrometer for Sulfur Isotope Analysis in Research and Analytical Services	Research	Single Discipline	Earth and Environmental Sciences	\$128,447.00
051ENH-19	Dr. Dan Rice	Louisiana State University and A & M College	E. J. Ourso College of Business Behavioral Research Facility Biometric Instrumentation Expansion and Infrastructure Upgrade	Research	Single Discipline	Business	\$200,000.00
052ENH-19	Prof. Golden Richard	Louisiana State University and A & M College	A Laboratory for Advanced Cybersecurity Instruction and Research	Education	Single Discipline	Computer and Information Sciences	\$196,024.00
053ENH-19	Dr. Miriam Siebenbuerger	Louisiana State University and A & M College	Versatile flow cell for liquid samples and Rheo-SAXS for investigations under deformation and flow	Research	Single Discipline	Chemistry	\$168,095.00
054ENH-19	Ms. Pamela Vinci	Louisiana State University and A & M College	Exhibition Gallery Enhancement for the Textile Arts	Education	Single Discipline	Arts	\$147,999.00
055ENH-19	Prof. Sophie Warny	Louisiana State University and A & M College	Micro-messengers: An exhibit at the frontier of Art and Science on microfossils and the story they tell about our changing climate	Research	Multidisciplinary	Earth and Environmental Sciences	\$41,010.00
056ENH-19	Dr. Weiwei Xie	Louisiana State University and A & M College	Enhancement of the Chemistry Single-Crystal X-ray Facility	Research	Single Discipline	Chemistry	\$130,000.00
057ENH-19	Dr. Gerard Dumancas	Louisiana State University at Alexandria	Enhancing the Chemistry Curriculum at LSUA through the Acquisition of Gas Chromatograph-Mass Spectrometer [GC-MS] and Atomic Absorption Spectrometer [AAS] Equipment	Education	Multidisciplinary	Chemistry	\$127,567.00
058ENH-19	Prof. Stephen Banks	Louisiana State University in Shreveport	Pure Water System to Enhance Teaching and Research at LSUS	Education	Multidisciplinary	Earth and Environmental Sciences	\$11,985.00
059ENH-19	Ms. Samantha Barbour	Louisiana State University in Shreveport	Digital Arts Photography Enhancement	Education	Single Discipline	Arts	\$31,431.00
060ENH-19	Dr. Amy Erickson	Louisiana State University in Shreveport	Advancing awareness and appreciation of the Louisiana coast	Education	Multidisciplinary	Earth and Environmental Sciences	\$48,098.00



**Proposals Submitted to the Departmental Enhancement Program - Targeted  
for the FY 2018-19 Review Cycle**

<b>Proposal Number</b>	<b>PI Name</b>	<b>Institution</b>	<b>Project Title</b>	<b>Primary Category</b>	<b>Single/ Multidisciplinary</b>	<b>Primary Discipline</b>	<b>Amount Requested</b>
061ENH-19	Dr. Amy Erickson	Louisiana State University in Shreveport	Enhancement of Environmental Science Equipment at LSUS	Education	Single Discipline	Earth and Environmental Sciences	\$63,330.00
062ENH-19	Dr. Amy Erickson	Louisiana State University in Shreveport	Providing GIS education and training to the LSUS community and its surrounding area	Education	Multidisciplinary	Earth and Environmental Sciences	\$85,810.00
063ENH-19	Miss. Victoria Hrody	Louisiana State University in Shreveport	Digital Visualization Lab for Biological Sciences, Historical Research and Criminal Justice	Education	Multidisciplinary	Arts	\$104,060.00
064ENH-19	Dr. Tibor Szarvas	Louisiana State University in Shreveport	Establishment of Technology-Enhanced Classroom for Courseware-Assisted Lab Instruction at LSUS	Education	Single Discipline	Mathematics	\$25,882.00
065ENH-19	Dr. Prashanna Bhattarai	Louisiana Tech University	Development of Power Systems and Smart Grid Laboratory at Louisiana Tech University	Education	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$120,603.00
066ENH-19	Prof. Elisabeth Maria Fatila	Louisiana Tech University	Acquisition of a 400 MHz NMR Spectrometer for Enhancing Education and Undergraduate Research at Louisiana Tech University	Education	Single Discipline	Chemistry	\$200,000.00
067ENH-19	Prof. Daniela Mainardi	Louisiana Tech University	Enhancing the Micro/Nanosystems Engineering Teaching Laboratory at Louisiana Tech University	Education	Multidisciplinary	Engineering A (Chemical, Civil, Electrical)	\$183,927.00
068ENH-19	Prof. Adarsh Radadia	Louisiana Tech University	Acquisition of Nano-Raman for Nano Research and Education	Research	Multidisciplinary	Engineering A (Chemical, Civil, Electrical)	\$199,995.00
069ENH-19	Dr. Tom Stafford	Louisiana Tech University	Departmental Enhancement of the Louisiana Tech Center for Information Assurance: Neurocognitive Assessment of Cyber Security and Cyber Deterrence	Research	Single Discipline	Computer and Information Sciences	\$139,448.00
070ENH-19	Dr. C. Shawn Sun	Louisiana Tech University	Enhancement of Material and Structural Testing Capabilities to Achieve Superior Sustainability of Civil Infrastructure	Research	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$140,968.00
071ENH-19	Prof. Shengnian Wang	Louisiana Tech University	Enhancing Chemical Engineering Energy Research and Education with Automated High-pressure, High-temperature Tubular Reactor and online GCMS Analysis	Research	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$116,300.00
072ENH-19	Dr. Marshall Bowles	Louisiana Universities Marine Consortium	Enhancement of capabilities for environmental analysis of coastal systems	Research	Single Discipline	Earth and Environmental Sciences	\$132,927.00
073ENH-19	Dr. Craig Hood	Loyola University New Orleans	Multidisciplinary Enhancement of Geospatial Technologies [GIS, GPS, Remote Sensing] at Loyola University New Orleans	Education	Multidisciplinary	Earth and Environmental Sciences	\$107,588.00
074ENH-19	Mr. Robert Racine	Loyola University New Orleans	Enhancement of Experiential Learning in Content Production with High Dynamic Range Imagery and Object Based Surround Sound Environments	Education	Single Discipline	Arts	\$199,650.00
075ENH-19	Dr. Derek Bussan	McNeese State University	Sustaining and Enhancing the McNeese State University Chemistry and Physics Department through the Acquisition of an Inductively Couple Plasma Mass Spectrometer [ICP-MS] for Teaching, Research and Training	Education	Single Discipline	Chemistry	\$185,520.00
076ENH-19	Dr. Dimitrios Dermisis	McNeese State University	Enhancement Of The Civil Engineering Labs For Recruiting And Retaining Students	Education	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$108,065.00
077ENH-19	Dr. Kaisar Khan	McNeese State University	Upgrading The Power Engineering Laboratory At Mcneese State With Smartgrid Trainers	Education	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$195,791.00

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078ENH-19	Dr. Zhuang Li	McNeese State University	Enhancement of Education in Predictive Maintenance	Education	Multidisciplinary	Engineering A (Chemical, Civil, Electrical)	\$84,281.00
079ENH-19	Mrs. Bridget McDaniel	McNeese State University	Virtual Reality, Augmented Reality, and Digital Modeling/Fabrication Enhancement	Education	Single Discipline	Arts	\$101,984.00
080ENH-19	Dr. Bei Xie	McNeese State University	Enhancement of Education in Internet-of-Things [IoT] Security	Education	Multidisciplinary	Computer and Information Sciences	\$91,148.00
081ENH-19	Dr. Shane Anderson	Nicholls State University	Music Classroom Enhancement with Technology Upgrade to Promote Innovative Teaching	Education	Single Discipline	Arts	\$132,214.00
082ENH-19	Prof. Raj Boopathy	Nicholls State University	Enhancement of Water Quality Analysis Training in Environmental Science Education	Education	Single Discipline	Earth and Environmental Sciences	\$33,625.00
083ENH-19	Dr. Deborah Cibelli	Nicholls State University	Digital Art and Humanities for High Impact Teaching in Art	Education	Single Discipline	Arts	\$100,498.00
084ENH-19	Dr. Laura Darcy	Nicholls State University	N-ABAL: Nicholls Applied Behavior Analysis Learning Labs	Education	Single Discipline	Education	\$68,012.00
085ENH-19	Dr. James Elithorp	Nicholls State University	Nicholls Geomatics Online Delivery Initiative	Education	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$24,620.00
086ENH-19	Dr. Heather Gamel	Nicholls State University	Flexible, Collaborative Learning Environment for Improving Mathematics Success of STEM Students	Education	Single Discipline	Mathematics	\$75,342.00
087ENH-19	Mr. Ross Jahnke	Nicholls State University	Fume Extraction Enhancement for Painting and Printmaking	Education	Single Discipline	Arts	\$17,584.00
088ENH-19	Prof. Glenn Lo	Nicholls State University	Assessment Driven Enhancement of Student Achievement in Chemistry	Education	Single Discipline	Chemistry	\$195,747.00
089ENH-19	Dr. En Mao	Nicholls State University	Creating a Collaborative Learning Environment for High Impact Practices in the College of Business Administration at Nicholls State University	Education	Single Discipline	Business	\$138,810.00
090ENH-19	Dr. Uttam Pokharel	Nicholls State University	A Gas Chromatograph for the Teaching Organic Laboratory	Education	Single Discipline	Chemistry	\$20,839.00
091ENH-19	Dr. Darcey Wayment	Nicholls State University	Using a Liquid Chromatograph Mass Spectrometer to Enhance Learning and Research in the Chemical Sciences	Education	Multidisciplinary	Chemistry	\$120,000.00
092ENH-19	Prof. Mirla Enriquez	Northwestern State University	Workforce Training. Enhancement of Technologies Capabilities through the Upgrade of the Advanced Interdisciplinary Computer Lab	Education	Multidisciplinary	Arts	\$55,359.00
093ENH-19	Prof. Shreyashi Ganguly	Northwestern State University	Enhancement of Undergraduate Course Curriculum and Research Through Acquisition of a Potentiostat/Galvanostat	Education	Single Discipline	Chemistry	\$20,046.00
094ENH-19	Prof. Jennifer Hill	Northwestern State University	Enhancement of Undergraduate Scholarship through Nuclear Magnetic Spectroscopy	Education	Single Discipline	Chemistry	\$116,150.00
095ENH-19	Dr. Eddie Horton	Northwestern State University	Networking and Security Computer Lab	Education	Single Discipline	Computer and Information Sciences	\$53,968.00
096ENH-19	Dr. Christopher Lyles	Northwestern State University	Enhancement of Biochemistry Laboratory Curriculum to Improve Capacity for Proteomic Studies	Education	Multidisciplinary	Chemistry	\$77,381.00

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097ENH-19	Mr. Oliver Molina	Northwestern State University	Addition of World Music Ensemble Course Offerings through the Acquisition of Musical Instruments	Education	Single Discipline	Arts	\$66,809.00
098ENH-19	Mr. Robert Richoux	Northwestern State University	Scenic Lab Safety and Creative Technology	Education	Single Discipline	Arts	\$72,120.00
099ENH-19	Dr. Daniel Rivera-Vazquez	Northwestern State University	Atomic force microscope for the enhancement of multidisciplinary teaching and research	Education	Single Discipline	Chemistry	\$89,581.00
100ENH-19	Dr. Chad Thibodeaux	Northwestern State University	Microwave System for Enhanced Organic Synthesis and Safer Sample Preparation	Education	Single Discipline	Chemistry	\$42,844.00
101ENH-19	Dr. Lauren Englade-Franklin	Nunez Community College	Request for Instrumentation to Enhance Chemistry Lab Curriculum	Education	Single Discipline	Chemistry	\$199,852.00
102ENH-19	Dr. Klaus Heyer	Nunez Community College	Graphic Information Systems [GIS] Workforce Development	Workforce	Single Discipline	Targeted Workforce	\$198,532.00
103ENH-19	Mr. Stephen Waddell	Nunez Community College	Experiential Learning in Restoring Coastal Wetlands	Education	Single Discipline	Earth and Environmental Sciences	\$191,669.00
104ENH-19	Mr. Keith Costa	Southeastern Louisiana University	Dance/Movement Studies Studio Enhancement	Education	Single Discipline	Arts	\$42,334.00
105ENH-19	Dr. Colleen Klein-Ezell	Southeastern Louisiana University	S.T.A.R.S. [Strategic Training and Resource Sampling] of Tomorrow's Classroom	Education	Single Discipline	Education	\$102,225.00
106ENH-19	Dr. Terri Lopez	Southeastern Louisiana University	iSale Lab: Development of an Interactive Sales and Leadership Experience Lab to Improve Student Readiness and Increase Employment Opportunity	Education	Single Discipline	Business	\$88,208.00
107ENH-19	Ms. Cristina Molina	Southeastern Louisiana University	Art + Entrepreneurship: Digital Fabrication and Publication Studio	Education	Single Discipline	Arts	\$113,114.00
108ENH-19	Dr. William Parkinson	Southeastern Louisiana University	Upgrading the Technology Infrastructure of Southeastern's Chemistry and Physics Department	Education	Single Discipline	Chemistry	\$30,448.00
109ENH-19	Dr. Mohammad Saadeh	Southeastern Louisiana University	Infrastructure for Enhanced Quality of Instruction and Learning of Electrical Engineering Concepts	Education	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$137,140.00
110ENH-19	Prof. Quoc-Nam Tran	Southeastern Louisiana University	Computer Networking and Administration Workforce Training	Workforce	Single Discipline	Targeted Workforce	\$195,787.00
111ENH-19	Dr. Benjamin Wicker	Southeastern Louisiana University	Acquisition of Benchtop Magnetic Spectroscopy and Thermal Analysis Systems for Southeastern Louisiana University	Education	Single Discipline	Chemistry	\$152,452.00
112ENH-19	Dr. Jose Noguera	Southern University and A&M College - Baton Rouge	Establishing a Supply Chain & Enterprise Systems NextGen Lab at Southern University and A&M College-Baton Rouge	Education	Single Discipline	Business	\$161,597.00
113ENH-19	Dr. JOSEPH OMONUK	Southern University and A&M College - Baton Rouge	Creating an Accounting and Finance Tutorial Lab and Enhancing Existing Instructional Technologies in the College of Business at Southern University Baton Rouge	Education	Single Discipline	Business	\$186,700.00
114ENH-19	Dr. Alex Shin	Southern University and A&M College - Baton Rouge	Acquisition of Universal Testing Machine to Enhance Teaching and Research	Education	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$196,283.00
115ENH-19	Dr. Robert A Elliott Sr PhD	Southern University at New Orleans	The Impact of 3D Models on Student Learning in Computer Programming	Education	Single Discipline	Computer and Information Sciences	\$66,821.00

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116ENH-19	Dr. Willie Jones, III	Southern University at New Orleans	Teacher Education Technology Enhancement [TETEP]	Education	Single Discipline	Education	\$135,193.00
117ENH-19	Dr. Patricia Robertson	Southern University at New Orleans	Social Entrepreneurship Program [SEP]: A lab Empowering Students to Address Society's Needs	Education	Single Discipline	Business	\$46,558.00
118ENH-19	Dr. Igwe Udeh	Southern University at New Orleans	Enhancing Graduation and Five-Stars Job Readiness for Louisiana Workforce through Entry-Level Information Technology Certification Training Boot Camp Programs	Workforce	Single Discipline	Computer and Information Sciences	\$106,205.00
119ENH-19	Dr. Yanjun Yu	Southern University at New Orleans	Design and Implementation of an Integrated System for Business, Educational, and Public Service Application and Network Development	Education	Single Discipline	Computer and Information Sciences	\$75,455.00
120ENH-19	Dr. Barry Hester	Southern University at Shreveport	"A Higher Plane: Creating Graduates that Possess the Knowledge, Skills and Abilities to be Successful Aircraft Maintenance Mechanics"	Workforce	Single Discipline	Targeted Workforce	\$176,282.00
121ENH-19	Mrs. Tuesday Mahoney	Southern University at Shreveport	Ensuring Employability Success through Culinary Hospitality Opportunities Program [CHOP] for Re-Entry Education.	Workforce	Single Discipline	Targeted Workforce	\$131,000.00
122ENH-19	Dr. Lonnie McCray	Southern University at Shreveport	Jaguars to the Core: English and Math Resource Center	Education	Multidisciplinary	Mathematics	\$92,778.00
123ENH-19	Dr. Terence Vinson	Southern University at Shreveport	Teacher Education Praxis Test Simulation Center	Education	Multidisciplinary	Education	\$46,413.00
124ENH-19	Mr. William Mayo	Sowela Technical Community College	Enhancing Equipment to Further Competencies in the Aviation Maintenance Workforce	Workforce	Single Discipline	Targeted Workforce	\$177,350.00
125ENH-19	Dr. David Shankle	Sowela Technical Community College	Using Technology to Better Prepare Students to Fill the Hospitality Industry Gap in Southwest Louisiana	Education	Multidisciplinary	Business	\$36,500.00
126ENH-19	Prof. Julie Albert	Tulane University	Atomic Force Microscope for Fast Imaging and Dynamic Systems	Research	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$186,900.00
127ENH-19	Prof. James Donahue	Tulane University	Upgrading the Detection Sensitivity of the Tulane X-Ray Diffraction Laboratory	Research	Multidisciplinary	Chemistry	\$198,500.00
128ENH-19	Dr. Dale Hartley	University of Holy Cross	Expanding and Enhancing Experiential Learning Opportunities in Graduate Education	Education	Single Discipline	Education	\$99,506.00
129ENH-19	Dr. Dale Hartley	University of Holy Cross	Strengthening the Graduate Management Program by Incorporating an International Co-Curricular Component	Education	Single Discipline	Business	\$35,000.00
130ENH-19	Dr. Dale Hartley	University of Holy Cross	The Creative Process Workshop-Performance Series	Workforce	Multidisciplinary	Arts	\$82,650.00
131ENH-19	Dr. Darryl Holliday	University of Holy Cross	A Flipped Open Discovery Food Science Program with a Research Arm for Traditional and Working Students to Enhance Workforce Growth & Development	Workforce	Single Discipline	Targeted Workforce	\$175,420.00
132ENH-19	Dr. Christoph Borst	University of Louisiana at Lafayette	Equipment for Virtual Reality Research, Education, and Outreach	Research	Single Discipline	Computer and Information Sciences	\$111,495.00
133ENH-19	Dr. Thomas Cline	University of Louisiana at Lafayette	Digital Fabrication Equipment Enhancements for Design Education	Education	Single Discipline	Arts	\$89,910.00
134ENH-19	Prof. Katie Costigan	University of Louisiana at Lafayette	Targeted Enhancement: Acquisition of a laser diffraction particle size analyzer for research, education, and training in earth and energy sciences	Research	Single Discipline	Earth and Environmental Sciences	\$87,945.00

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Proposal Number	PI Name	Institution	Project Title	Primary Category	Single/ Multidisciplinary	Primary Discipline	Amount Requested
135ENH-19	Dr. Farzad Ferdowsi	University of Louisiana at Lafayette	Power and Energy Program Enhancement within the Electrical & Computer Engineering Department at University of Louisiana at Lafayette	Research	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$148,758.00
136ENH-19	Dr. Raju Gottumukkala	University of Louisiana at Lafayette	The Smart Systems Laboratory to Support Research & Innovation in Internet-of-Things	Research	Multidisciplinary	Computer and Information Sciences	\$184,278.00
137ENH-19	Prof. Boyun Guo	University of Louisiana at Lafayette	High-Pressure High-Procession Equipment for Characterizing Pressure-Dependent Conductivity of Hydraulic Fractures in the Tuscaloosa Marine Shale	Research	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$95,430.00
138ENH-19	Dr. Emad Habib	University of Louisiana at Lafayette	Development of the Vermilion Hydro-Ecological Field Laboratory [VHEFL]: Using a Networked Watershed Approach to Enhance Research and Education on Coupled Freshwater and Coastal Systems in South Louisiana	Research	Single Discipline	Earth and Environmental Sciences	\$160,870.00
139ENH-19	Dr. Lulin Jiang	University of Louisiana at Lafayette	Acquisition of a Time-Resolved Planar Laser Induced Fluorescence [PLIF] to Foster Energy Frontier Research Embedded in Chemistry	Research	Multidisciplinary	Chemistry	\$200,000.00
140ENH-19	Prof. Brian Kelly	University of Louisiana at Lafayette	Equipment Enhancement for Cross-Disciplinary Development within Visual Arts	Education	Single Discipline	Arts	\$122,352.00
141ENH-19	Dr. Mohammad Madani	University of Louisiana at Lafayette	Enhancement of Microfabrication Laboratory at UL Lafayette	Research	Single Discipline	Engineering A (Chemical, Civil, Electrical)	\$122,420.00
142ENH-19	Dr. Gholam Massiha	University of Louisiana at Lafayette	Enhancing Targeted Automation, Control, and Manufacturing Technology Laboratories by Integrating Two Different Advanced Programmable Logic Controller Systems	Education	Multidisciplinary	Engineering A (Chemical, Civil, Electrical)	\$44,500.00
143ENH-19	Mr. Chris Munson	University of Louisiana at Lafayette	Audio Production Facility and Classroom Enhancement for Music Media and Music Business Programs	Education	Single Discipline	Arts	\$39,991.00
144ENH-19	Dr. Douglas Williams	University of Louisiana at Lafayette	Improving Teacher Preparation Through a Maker-Centered Learning Collaborative Classroom	Education	Single Discipline	Education	\$106,452.00
145ENH-19	Prof. Wu Xu	University of Louisiana at Lafayette	Acquisition of a thermal cycler and a benchtop centrifuge to strengthen molecule separation and characterization capacity for enhancing undergraduate teaching and training	Education	Single Discipline	Chemistry	\$32,600.00
146ENH-19	Dr. Hui Yan	University of Louisiana at Lafayette	Enhance research in chemistry by acquiring a gas analyzer for a new interdisciplinary PhD program at UL Lafayette	Research	Single Discipline	Chemistry	\$71,348.00
147ENH-19	Dr. Pengfei Zhang	University of Louisiana at Lafayette	Acquisition of Dynamic Mechanical Analysis [DMA] System for Advanced Materials Characterization	Research	Multidisciplinary	Engineering A (Chemical, Civil, Electrical)	\$59,236.00
148ENH-19	Dr. Mark Clark	University of Louisiana at Monroe	Brown Auditorium Upgrade	Education	Single Discipline	Arts	\$191,116.00
149ENH-19	Dr. Emad El-Giar	University of Louisiana at Monroe	Acquisition of an Ultra-High Performance Liquid Chromatography System to Enhance Research and Training in Chemistry, Biology, Toxicology and Pharmacology at the University of Louisiana at Monroe	Research	Single Discipline	Chemistry	\$142,299.00
150ENH-19	Mr. John Herrock	University of Louisiana at Monroe	Polarized Light Microscopy Techniques and Asbestos Analysis Instructional Lab Equipment Upgrade	Education	Single Discipline	Earth and Environmental Sciences	\$35,006.00
151ENH-19	Dr. Siva Murru	University of Louisiana at Monroe	Acquisition of Bench Top NMR Spectrometer for the Enhancement of Chemistry Undergraduate Teaching and Research	Education	Single Discipline	Chemistry	\$58,145.00
152ENH-19	Mr. jeffrey rinehart	University of New Orleans	Creation of a Makerspace	Research	Multidisciplinary	Arts	\$191,983.00

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153ENH-19	Dr. Tumulesh Solanky	University of New Orleans	Enhancing the Mathematics Co-Requisite Instruction at UNO via Active Learning and Peer-to-Peer engagement in the Classroom	Education	Single Discipline	Mathematics	\$53,114.00
154ENH-19	Dr. Christopher Summa	University of New Orleans	Integrated Classroom Environments for Computer Science Education	Education	Single Discipline	Computer and Information Sciences	\$196,729.00
155ENH-19	Dr. Navneet Goyal	Xavier University	Acquisition of GC Instrumentation for Organic Chemistry Labs	Education	Single Discipline	Chemistry	\$46,941.00

Total Number of Proposals Submitted	132
Total Funds Requested	\$14,894,722.00

## **Appendix B**

### **Rating Form**

## Departmental Enhancement Rating Form

**Goals/Objectives      10 Points      \_\_\_\_\_**

-To what degree are the goals clearly stated, reasonable, achievable, and related to the mission statement of the academic unit? To what degree are the objectives measurable and related to the goals?

**Work Plan      20 Points      \_\_\_\_\_**

-To what degree does the proposal establish a compelling timeline for grant activities with a clear delineation of which team member is responsible for each task? To what degree does the work plan clearly establish the necessary tasks for achieving the project goals and objectives?

**Impact      30 points      \_\_\_\_\_**

-To what degree does the project elevate the unit's ability to perform significant research, compete for research funding, improve facilities or curriculum in a way that impacts recruitment, retention, and the workforce competitiveness of graduates? To what degree is this impact related to the mission statement of the academic unit?

**Evaluation      10 Points      \_\_\_\_\_**

-To what degree is a plan established for evaluating the impact of the project with criteria based on specific metrics?

**Sustainability      10 Points      \_\_\_\_\_**

-To what degree are the goals, impact and individual budget requests sustainable beyond the life of the grant? To what degree are maintenance or sustainability plans established for equipment, software, supplies, as well as funds dedicated to staff, faculty and graduate students?

**Investigators      10 Points      \_\_\_\_\_**

-To what degree do the team members appear capable of implementing the work plan?

**Budget      10 Points      \_\_\_\_\_**

-To what degree is the budget efficiently crafted to maximize the project's impact? To what degree does the budget justification clearly explain the relationship of each individual request to the proposal's impact, goals and work plan?