VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

39

Division	Academic Affairs	College of Arts and Letters
	Campus Division	**David** **Carlson** dajcarls@csusb.edu 909-537-5834

47228

Total Amount Requested for FY 2017 $45,357.00

Project Title: Mobile Laptop Labs for English Courses and Advising

Project Abstract:

The English Department requests funding for two 30-laptop mobile labs to enhance student learning in multiple classes, and to be used by the department for group advising sessions as we work through the semester conversion and towards overall improvement in graduation rates. One of these labs will be housed at the San Bernardino campus and the other will be housed at the Palm Desert campus. These labs will serve the many sections of first-year composition (ENG 102, 103, 104, 105, 106, 107) and expository writing (ENG 306) taken each quarter by students from all different majors. In these courses, the laptops will help students to learn how to conduct online research; complete collaborative writing projects; and incorporate real-time feedback from their peers and instructors into their writing. In addition, in our English literature, creative writing, and linguistics courses taken by English majors and Liberal Studies majors, the laptops will allow students to research digital archives on authors and texts; to use online "corpus linguistics" tools to examine word usage in real- life discourse; and to produce a range of multimedia texts. Our department has just hired a new creative writing faculty member with expertise in digital publication and multi-modal creative writing; we expect this faculty member to regularly employ these labs in her courses. Finally, as part if the department's comprehensive advising plan (for Q2S and Grad 2025) we plan to hold regular group/cohort advising sessions. These labs will allow us greater latitude in conducting those sessions.

Challenge(s) this project will address:

We have one one English-department mobile lab at the San Bernardino campus, and it is in constant use. It is housed in the UH building and thus can only be used in UH classrooms. Many of our English classes, however, are in the College of Education (COE) building and thus need a lab that can be housed there. We already have commitments for space to house the mobile lab in the COE building. At the Palm Desert campus, we currently have no dedicated English lab, and faculty have little access to classroom technology. An additional English mobile lab for the San Bernardino campus and a first English mobile lab for PDC students would increase access to technology substantially. The additional labs will address the inequity in access to technology for students and teachers in our First Year Writing, expository writing, and undergraduate at the San Bernardino campus and particularly at the Palm Desert Campus.

Alternate solution(s) should this project not be funded:

We do not have alternate plan to purchase the requested labs, as our Department and College simply do not have the funding. We will, however, continue to prioritize the existing technology to which we do have access in ways that best support our students in the classroom.

Impact(s) if this project is not funded:

PDC courses will continue to lack equal access to computer technology that is more readily available on the San Bernardino campus. As well, at the San Bernardino campus, the many English classes offered at the College of Education building will not have equal access to technology.

Cost: $$ (One time or recurring)

$45,357 (2 Labs @ $22, 678.50 each). One-time cost.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Increased student access to technology in English classes.   Increased student ability to conduct research and evaluate sources.   Improved student writing and revision abilities Increased student facility with writing in various genres, including multimedia texts.   Enhanced student knowledge of literary and non-literary texts and their authors.   Increased student ability to analyze language Enhanced opportunities for faculty-led student advising, leading to more rapid progress to degree

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

We will maintain a log of how often the mobile lab is used and by what classes. We will also log the used of the labs for advising sessions. In order to address all learning outcomes above, we will collect written surveys from students and instructors about how they have used the lab and the extent to which their uses achieved the learning and development outcomes listed above. Some of those surveys (regarding use of the one lab we currently possess) are included in this application to provide additional context.

Project Timeline   **Start:** 9/5/2018 12:00:00AM   **End:** 6/3/2025 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-497799d06639779e1fbec1ba1b7f3a66_VETI_BUDGET_EnglishDept_Winter_2018.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

53

<u>Division</u>	Academic Affairs	Undergraduate Studies		3077021
	Campus Division	**David**	**Marshall**	dmarshal@csusb.edu (909) 537-7472

<u>Total Amount Requested for FY 2017</u> **$12,718.00**

<u>Project Title:</u> Equipping the New Honors Program Facility

<u>Project Abstract:</u>

The University Honors Program is quickly expanding in number, from an estimate of about 130 students in 2015 to an expected enrollment of 400 students in fall of 2018. Because of our growth as a program we will be relocating into a new office building that will accommodate this increased number of students. With that, we want to provide our students the resources they need for academic success, which includes technology of different sorts, including computers, a printer, and charging station. Students use technology, including cell phones, tablets, and laptops every day to access important documents that they might need for class, or use them as a way to take notes or research. Providing a charging station will provide students with a confidence that they will always be able to have access to the resources they need to succeed.

<u>Challenge(s) this project will address:</u>

Currently, we have four computers that students have access to, and they are often used for homework, online tests, printing, research, and other academic purposes to the point where we have a line of students waiting for their turn to be able to use the resources we provide. This project is to combat that issue, so we will have more than one computer per 100 students. The charging station increase student's ability to use their personal technology for homework, in class, and for research while working in our provided study space. Providing laptops that students are able to check out will allow students who do not have the privilege of having a personal laptop to have the option of using these to take notes in class or do research.

<u>Alternate solution(s) should this project not be funded:</u>

If our project is not funded, we will continue to use the four computers we currently have, but have even more students who will be in need of the technological resources. Students will be referred to other campus labs.

<u>Impact(s) if this project is not funded:</u>

More and more, classes are dependent on access to technology to computers and the internet. For example, students are advised to use computers that are hooked up to campus for online tests, should there be an issue with internet connection so that the problem can be traced and fixed. We want to make sure that our students each have access to these computers so they can continue showing academic success.

<u>Cost: $$ (One time or recurring)</u>
$12,718 one time

<u>What are your intended Process Outcomes and/or Student Learning Outcomes?</u>

• Increase access to computers for academic purposes • Increase the availability of printing services

<u>Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)</u>

If the project is funded, we will have a computer that will exist solely to track student use of these computers, so we will be able to see who uses the computers, when and how often. In addition to that, we will be able to track how many students are using our provided printing services.

<u>Project Timeline</u> **Start:** 8/1/2018 12:00:00AM **End:** 8/7/2018 12:00:00AM **<u>First Quarter of Student Use</u>** Fall 2018

<u>Budget:</u>
http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-841be32d0909bcc52389d35cb1775dba_Honors_VETI_Budget.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID: **63**

Division	Academic Affairs	College of Education		5813154
	Campus Division	**Andrew**	**Hughes**	andrew.hughes@csusb.edu	909-537-5637

Total Amount Requested for FY 2017 $59,582.00

Project Title: Technological Literacy Expansion Project

Project Abstract:

The mission of this project, guided by Educational Leadership and Technology Department, is to improve the technological literacy of students, pre-service teacher candidates, masters' and doctoral students in the College of Education. More specifically, the purpose of this project is to improve all students' technological literacy. Students working to become teachers will most likely have more broad experiences developing the required technological knowledge and skills, effective technology implementation, understanding of technical rights and responsibilities, computational thinking, and communication. These experiences will include audio and video editing, empirical data analysis, computer aided drafting and design, programming, virtual reality, website creation, and others including but not limited to effective software/applications implementation. Students will also be able to have more specific experiences related to robotics, networking, computer components, coding/programming, design, servers, general engineering, programmable logic controllers, Arduinos, and Raspberry Pi. While all students can benefit from this lab space, it is believed that the lab will be more utilized by students in teacher preparation programs as well as students in the masters and doctorate programs in the College of Education. This project will result in the CE 320-lab space being revamped to better meet the needs of current and future students. The lab has already been updated with new computers. The lab will allow students to use and receive instruction on various software, instructional technologies, and hardware. This proposal is requesting Vital Technology funds to equip the lab with Vex Robotic kits, 3D printers, virtual reality and audio/video capture.

Challenge(s) this project will address:

There are four primary and several ancillary challenges this project aims to address: (1) The first challenge is improving CSUSB students' technological literacy. (2) The second challenge is improving future teachers graduating from CSUSB technological literacy. (3) The third challenge is addressing the technological literacy aspects presented in the California Teacher Performance Expectations and required by the California Commission on Teacher Credentialing. (4) The fourth primary challenge is preparing future teachers with the ability to implement California computer science standards that are being developed to address Assembly Bill 1539 Content Standards: Computer Science. What is technological literacy and why is it important? Technological literacy encompasses three interdependent dimensions – knowledge, ways of thinking and acting, and capabilities. Similar to literacy in other disciplines, technological literacy is about providing students with the tools to participate intelligently and thoughtfully in the world around them. Because our society is increasingly being driven by technology innovation and because an increasing percentage of jobs require technological skills, a rise in technological literacy would positively impact students' ability to engage with the world around them. As students are citizens in a democratic society, they will be asked to help make decisions related to technological policies, processes, and procedures. For example, students will be asked to help make decisions about net neutrality, outside interference with U.S. elections, energy generation, environmental pollution, police body cameras, and numerous other technological issues that have and will continue to be social issues. Developing technologically literate students directly relates to the Graduation Initiative 2025. What is technology? Broadly speaking, technology is how people modify the natural world to suit their own purposes. More specifically, technology refers to a diverse collection of processes and knowledge that people use to extend human abilities to better satisfy human wants and needs. Our dependence on technology is increasing. With the growing importance of technology, it is vital that CSUSB students receive education that emphasizes technological literacy. CSUSB students have been called to define the future. Tools, machines, systems, communication, healthcare, entertainment, and many additional items that relate to every human activity are continuously impacted by technology. A majority of teachers that graduate from CSUSB obtain teaching positions in the Inland Empire. CSUSB's student population consists primarily of residents from the Inland Empire. Students that will become teachers in our local community must become better stewards of technological literacy. Developing teachers' technological literacy will inevitably improve technological literacy saturation in the Inland Empire.   Related to the third challenge are the aspects of technological literacy that teachers graduating from CSUSB are expected to have developed which could be considered additional challenges. Based on the Teacher Performance Expectation, there are several key areas that teachers will need to develop related to technology implementation in the classroom including effectively managing, monitoring, and contributing to the learning of all students. Overall new teachers will need to design, implement, and evaluate technology-rich learning environments to customize and individualize learning opportunities and assessments for all students. This involves integrating knowledge of subject matter, pedagogy, and available instructional technology tools, including assistive technology, to design learning experiences that engage and support all students, along with improving students' conceptual understanding, cultivating their critical thinking, and promoting their creative learning. To conclude, this project aims to cultivate all CSUSB students' technological literacy by providing hands-on learning experiences.

Alternate solution(s) should this project not be funded:

Other internal and external grant opportunities are and will be considered.

Impact(s) if this project is not funded:

 The four primary challenges will not be addressed. Teachers ability to meet the teacher performance expectations and address the upcoming computer science standards will suffer. Overall students'
 development of technical knowledge, ways of thinking and acting, and capabilities will suffer, which directly relates to the students ability to interact with the world around them.

Cost: $$ (One time or recurring)
59,582.00 (one time)

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes: 1. Students using the lab space on their own time to develop their desired knowledge, skills, and abilities. 2. Faculty using the lab space to cover aspects of technological literacy in class. 3. Lab space becoming generally more useful.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1. Data on students using the lab space will be collected. 2. Data on faculty using the lab space will be collected. 3. Students and faculty surveys will be implemented periodically to collect data on the labs usage and the users experience. Data will be analyzed for significant trends that may be used to adapt the lab space.

Project Timeline   **Start:** 2/12/2018 12:00:00AM   **End:**   6/28/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-979c52e4e926ee38eb70b3a81cd67274_Andrew_Hughes_Budget_final.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

73

Division	Academic Affairs	Teaching Resource Center		76972
	Campus Division	**Jo Anna**	**Grant**	jgrant@csusb.edu	(909) 537-5821

Total Amount Requested for FY 2017   **$91,950.00**

Project Title: E-Learning Academy

Project Abstract:

Although online courses are necessary for improving the graduation rate and providing student flexibility, they are not always designed with student engagement in mind. Additionally, online course design seldom incorporates student feedback at the design level, but relies on feedback after the course is over. As a result, online course offerings are not always student-centered and fail to offer the best possible student experience.   This proposal requests funding to create a yearlong program to partner faculty with undergraduate and graduate students in the design of exciting, interactive, and pedagogically sound online courses. Students will be involved in two ways: (a) graduate students will work with faculty and instructional designers to create engaging online content; and (b) undergraduate students will test the effectiveness and engagement of online learning activities during the various stages of the course design process.   The program assumes 10-12 faculty participants selected based on the courses they teach (bottleneck courses targeted), 10-12 graduate students, and 10-20 undergraduate students. The program participants will engage in a summer institute, as well as regular monthly meetings. At the end of the program, we anticipate the redesign in online or hybrid format for at least 5 "master" high-impact courses that could be taught as such or with minor modifications in multiple sections, by multiple instructors, thus having the largest impact on reducing course bottlenecks for students. The online courses redesigned will carry the VETI logo, as well as acknowledgment for the students who worked on each course.

Challenge(s) this project will address:

1) Lack of online course offerings for bottleneck first-and second-year courses with high impact on retention and progression toward degree. 2) Online courses that are not learner-centered. 3) Lack of faculty understanding of the different teaching strategies for student engagement required in online settings. 4) Heavy use of text-intensive instructional materials in online settings. 5) Lack of student engagement and student support in online settings. 6) Lack of student feedback at the course development and design stage, rather than at the end of the course. 7) Lack of a concerted campus effort to grow the number of good online course offerings. 8) Lack of online course design consistency across instructors.

Alternate solution(s) should this project not be funded:

1) General workshops on online teaching, but workshops do not target the particular faculty in a position to actually redesign the bottleneck courses that are crucial to student success.

Impact(s) if this project is not funded:

1) The number of online courses will probably continue to grow but at a very slow pace. 2) There is no guarantee that the courses most in need of online sections will actually be offered online. 3) Even if bottleneck course sections are offered online, the quality of course design, and thus student engagement, will vary wildly. 4) Because bottleneck courses are crucial to student retention, poor design might lead to higher rates of dropout and stagnant or increasing DFWI rates.

What are your intended Process Outcomes and/or Student Learning Outcomes?

The E-learning Academy will produce the following process outcomes: Outcome 1. Increase in the number of online course offerings for bottleneck coureses. Outcome 2. Increase in the online student retention rates. Outcome 3. Bottleneck course reduction. Outcome 4. Lower DFWI rates for bottleneck courses. Outcome 5. Increase in the number of online courses offered to PDC students. Outcome 6. A campus webpage with best practices in online course redesign documenting the processes and partnerships developed during the E-learning academy. This webpage would serve as a resource for future online course design and will be branded with the VETI logo.   The E-Learning Academy will produce the following student learning outcomes: Outcome 7. Greatly improved quality of online courses in terms of engagement, interactivity, and active learning. Outcome 8. Project-based learning experience for all the students involved in the E-learning academy. Outcome 9. Valuable pedagogical experience with online teaching and course design for the graduate students involved in the E-learning academy.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Measure 1: The number of online sections offered for bottleneck courses. Measure 2: Student retention rates. Measure 3: The number of bottle neck courses. Measure 4: A similar or lower DFWI rate in the redesigned courses as in the original courses. Measure 5: The number of online course offerings for PDC students. Measure 6: Campus webpage with best practices in online course design, branded with VETI logo. Measure 7: Student evaluation of online experience. Measure 8: Quality of e-portfolios for students participating in the E-Learning Academy Measure 9: Teaching strategies and online course design techniques included in e-portfolios of graduate students participating in the E-Learning Academy.

Project Timeline   **Start:** 7/1/2018 12:00:00AM   **End:**   6/30/2019 12:00:00AM   **First Quarter of Student Use**   Spring 2019

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-9a1dc5376e0184a68aa7bfd68867583f_VETI_TRC_letter_of_support.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-4bf40934735b263f5ed296c0de98589e_VETI_BUDGET_2018.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID: **74**

Division	Academic Affairs	John M. Pfau Library		54183
	Campus Division	**Brent**	**Singleton**	bsinglet@csusb.edu	909-537-5083

Total Amount Requested for FY 2017 $70,000.00

Project Title: Pfau Library Enhanced Student Computing

Project Abstract:

Five years ago the library was awarded VTI (now VETI) funds to replace all of the public computers in the 1st floor Reference area and lab PL-111. This project is an unmitigated success; the machines are wildly popular and fully occupied for large stretches of the day, Monday through Friday. These computers have served us well, however, five years is stretching the lifetime of a computer and they are showing their age. We are requesting that all 56 computers be replaced so that CSUSB students have the fastest, most up to date, and fully secure workstations to complete their research and projects in the library. We are requesting all-in-one computers (CPU and monitor in one unit), the same as last time. This gives our students the maximum desktop workspace as well as legroom by not having a bulky CPU on top or below the desk. We understand that replacing 56 existing computers is not the sexiest proposal out there, but it may well have the greatest impact in terms of the sheer number of students benefiting from the technology. Our students pay a lot of fees and tuition and deserve equal access to the latest technology when using library computers. Therefore, it is crucial that all 56 be replaced soon and at the same time.

Challenge(s) this project will address:

Our aged public workstations are beginning to fail one-by-one. While our IT department is able to fix many of the failures, increasingly it is not cost effective to replace parts for these older machines. This year we extended the life of the computers by adding solid state hard drives to enhance performance, but this is a stop gap measure that does not address aging processors, motherboards, LCD displays, power supplies and other integral parts that could fail at any moment. As well, ITS has recently notified Library Information Technology of a hardware vulnerability in our Intel microprocessors for which there is no fix other than replacing the chip. This is cost prohibitive in these older machines.

Alternate solution(s) should this project not be funded:

As the campus has never provided the library with baseline funds to replace our public computers on a 4 year cycle, we do not have a viable funding source outside of VETI to replace them all at once. Before VETI, the library would procure 10-15 new public terminals per year, when funds were available.

Impact(s) if this project is not funded:

If purchasing just 10-15 computers per year at best, the library would have a permanent mish mash of old and new computers, meaning some students would have access to the latest technology, while others languish on outdated technology. It would take 4-5 years to refresh all of the computers on the first floor. Thus, by the time the oldest existing machines were replaced they would be 9-10 years old, if they were able to survive that period without failure. This would cause our students to have a permanent inequity in access to technology and they would likely have fewer computers to use as those that fail may not be replaced, while others may be offline for servicing more often.

Cost: $$ (One time or recurring)

One time cost of $70,000 ($1250 x 56 computers)

What are your intended Process Outcomes and/or Student Learning Outcomes?

The Process Outcome of this project would be increased student satisfaction with library computer performance.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

The Measure for the project Process Outcome will be a user satisfaction survey administered within the first quarter after the deployment of the computers. We will ask a few brief questions asking students to reflect on their satisfaction with the new computers compared to the ones replaced.

Project Timeline   **Start:** 8/20/2018 12:00:00AM   **End:** 8/20/2022 12:00:00AM   **First Quarter of Student Use** Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-40a783b489a278c344ecfe8cdc3df805_VETI_BUDGET_TEMPLATE.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

Division	Academic Affairs	College of Natural Sciences		7084
	Campus Division	**Susan**	**Addington**	saddingt@csusb.edu	909-496-7408

Total Amount Requested for FY 2017 $87,293.44

Project Title: Everyday Professional Technology in Math Classrooms

Project Abstract:

General education math courses (Math 110 and 115 in 2018-20, Math 1101, 1201, 1301, 1401, 1601 in 2020) will all use technology integrated into the courses. Most of these courses will use spreadsheets; calculus-track classes will also use more specialized math technology. These technologies, especially spreadsheets, are not just learning tools: they are professional tools that any college graduate can expect to use in their professional career. Cabinets of laptops in several classrooms frequently used for these classes will allow all students to become accustomed to use technology as an everyday professional tool for on-the-job quantitative reasoning.

Challenge(s) this project will address:

While many students have their own laptops or tablets, some can't afford one. Students can check out laptops from the library, but cabinets of laptops in several classrooms frequently used for these classes will allow all students to become accustomed to use technology as an everyday professional tool without extra efforts on the part of busy students and instructors. The Math Department is in the process of reforming its General Education math courses that are taken by almost all students. In the past, some of the courses have focused on paper-and-pencil math skills needed for further math courses (e.g. calculus). The new courses will take a truly general education approach, helping students learn habits of mind and quantitative reasoning abilities that will serve them not only in any future math courses they may take, but also in quantitative work in other disciplines (such as disciplinary statistics courses and business courses), and in their professional careers after graduation. Professional quantitative work almost always involves using technology, and the most prevalent quantitative technology is spreadsheets. Learning a technology and using it effectively takes years. Students will start this process in their first-year math programs. Getting all instructors on board with these new skills and ways of teaching will be a challenge. If an instructor has to make arrangements to ensure that students have access to technology during class, s/he sometimes will just require students to do the work outside class. For many students, it is too difficult to learn these skills on their own. Having a set of laptops in the classroom will make it much easier to use technology during class, even on the spur of the moment.

Alternate solution(s) should this project not be funded:

Currently, students whose math classes meet in Jack Brown Hall can have access to carts of laptops if their instructor makes an arrangement with the tech staff. Students whose classes meet elsewhere will have to make a separate trip to the library to check out a laptop, or share a computer with a classmate, or attempt to run software on their phone.

Impact(s) if this project is not funded:

Students will have to do more learning of software on their own, in a campus lab, or on desktop computer at home. It's easier to learn technology when others are around to help, and frustrating to try to learn it alone. Instructors will have to cope with students who do not have access to a non-tiny screen and attempt to run a spreadsheet on their phone. (This is possible, but very awkward.)

Cost: $$ (One time or recurring)

$87,293.44. One-time, up to the expected life of 5 years for the laptops. Cabinets are expected to last for decades. If the laptops are used and needed, then further funding will be sought in 5 years. Periodic computer maintenance will be provided by student assistants under the supervision of Takenori Tsuruga.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process outcomes: 1. Instructors for Math 110 and 115 will include more spreadsheet and other technology activities in their courses. 2. Students will become accustomed to using spreadsheets and math programs for solving problems and working on applied projects in math classes.   General Education Learning Outcome 3. Critical Literacies - Analyze the ways that information, including quantitative and technological, oral and written, both shape and are shaped by social contexts. Math Department learning outcomes: 4. (Goal 5): Technology •   Students use technology to manipulate mathematical objects (e.g., functions, equations, data sets, etc.) •   Students use technology to conduct mathematical explorations, to model problem scenarios, and to analyze mathematical objects. Ask instructors to select some students spreadsheet work: low, medium, high 5. (Goal 6): Life-long Learner •   Students demonstrate the ability to apply mathematics and statistics to new contexts (e.g. in other classes, the workplace, graduate school, classes they teach). •   Students recognize and appreciate the role that mathematics can play in their futures and in society in general.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1. Survey of instructors teaching Math 110 and 115 in the equipped classrooms on whether and how often they used the laptops, and what they used them for. Ask for a list of activities they did in class and assigned to do outside of class using technology. 2. Survey of students: How often did you use technology in class? What homework assignments required use of technology? What sort? Etc. 3 and 4. Ask instructors to submit representative samples of student work of low, medium, and high qualities; review both the design of the assignment and the students' responses. 5. may be difficult to assess in the year of this grant; most students will not have moved on to upper division courses and certainly not to professional careers. However, several other projects are attempting to track students from first year math courses through college, with assistance from Institutional Research. We may be able to judge some effectiveness of technology use in math classes by the courses they took and pass rates.

Project Timeline   **Start:** 7/1/2018 12:00:00AM   **End:** 6/30/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-06b97fc8a70a4bb653440199ac7c20d3_Support-SSI.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-074c8467e915f381763fe62748019262_VETI_Support.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-03fc7a10284f264f1c5efa12684f1881_VETI_BUDGET_MathClassrooms.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

80

Division	Academic Affairs	Jack H. Brown College of Business and Public Administration		5794759
	Campus Division	**Xiaoyu**	**Huang**	crystal.huang@csusb.edu	(909) 537-3238

Total Amount Requested for FY 2017 $35,104.00

Project Title: iClicker2 Student Response System

Project Abstract:

iClicker is a world-leading student response system. My initial student and faculty surveys show strong support for iClickers. This project aims to purchase 600 iClicker2 student remotes and 10 instructor receivers for four different departments in two participating colleges, so that the participating instructors and students can enjoy free iClicker2 systems improve participation and engagement. iClicker2 remotes can be purchased by either institutions or students. If instructors require students to purchase their own iClicker2 student remotes which costs $52.99. Compared to other web-based or mobile based audience response systems, iClicker2 is the most secure, consistent and reliable student response system for attendance, quizzes, and polling. It can be easily re-used with no further costs. Instructors can engage students with iClicker2 attendance, quizzing, and polling functions, save valuable class time. iClicker2 also helps to identify students' misconceptions quickly, clarify issues immediately, and turn traditional lectures into active learning with real-time responses and feedback. An instructor can save time grading quizzes and students can learn their marks instantly. Notably, iClickers is easy and fun to use for both instructors and students. As shown in my preliminary faculty survey, all 15 surveyed instructors are interested in using iClickers. 10 professors confirmed that they will use iClicker2 in their classes (e.g. ACCT211, 212, CSE 308, 403, 521, HRM455-457, 460, MGMT230, 302, 405, 530, MKT 410) once iClickers are funded by the VETI grant. The success of the grant proposal will create a ripple effect in future classes and more classes will adopt iClickers.

Challenge(s) this project will address:

iClicker2 system is especially important for large classes. Some common challenges includes one-way communication, limited class time, students' fear of participation in large classes, many quite students, as well as bad class behaviors such as talking, playing with the phone or laptop or falling asleep. Even for small classes, some of these undesirable behavior might be a challenge for instructors. Therefore, it is important to introduce a student response system. This project aims to improve student engagement and active learning in class with iClicker2 student response systems. Despite the advantages of the iClickers, the main challenge of implementing iClickers in class is the high cost of student remotes. The cost of an iClicker2 student remote is $52.99 on the iClicker website. Instructors are reluctant to use iClickers because of the high costs for students. Many other universities offer iClicker2 for students and instructors free of charge. However, only a few departments in the university currently own and use iClicker2 in class due to lack of funding. This project will ensure instructors who want to use iClickers can own sufficient number of iClicker2 student remotes and instructor receivers, so students don't have to pay for the iClicker2 remotes. Based on my preliminary faculty survey, this project requests 600 iClickers2 student remotes and 10 instructor receiver base kits, so that iClicker2 student remotes will be available to instructors and students free of charge. There are several alternative web-based or mobile based audience response systems; however the more reliable functions are typically not free and these systems with recurring costs can easily become more costly for faculty and students.

Alternate solution(s) should this project not be funded:

All three alternative solutions require students to pay for the student response systems including web-based or mobile based audience response systems. Option 1. Ask students to purchase iClicker2 student remotes. The cost of an iClicker2 student remote is $52.99 on the iClicker website or $43.74 on Amazon.com or Walmart.com plus tax and $6.99 registration fee. For 600 students, the cost is $26,495. For 20 years, assuming students graduate in 4 years, the cost for students is $132,475. Option 2: Other web-based or mobile based audience response systems: Option 2.1: Mobile version of iClicker, iClicker Reef, costs a student $14.99 per student for 6 months or $23.99 for 1 year. For 600 students and 4-year usage, the cost is $29,980. For 20 years, assuming there is no increase in the cost, the total cost for students is $149,900. Option 2.2: Poll Everywhere costs 19 per month. Average professor with 200 students will pay $349 per semester or each student pays $9. For 600 students and 4-year usage, the cost is $18,000. For 20 years, assuming there is no increase in the cost, the total cost for students is $90,000. Option 2.3: Socrative costs 19 per month. Average professor with 200 students will pay $349 per semester. The free version only allows up to 50 students. Socrative Pro costs 59.99 per year. If instructors pay for Poll Everywhere, the yearly cost for 20 instructors is $6,980. Assuming there is no increase in costs, the total cost for 10 years is $69,800 and for 20 years is $139,600.   Option 3: University iClicker Reef License Below is the grid for CSU pricing for a site license of REEF. The cost depend on how many years the school is willing to commit to, but the bigger issue tends to be, are all faculty willing to allow personal devices in the classroom. The university needs to purchase access points, meaning if you purchased 1000 access points, the university could potentially have 4000 different students using the app over a year (1000 in Fall, a different 1000 in Winter, a different 1000 in Spring and 1000 more in Summer).   CSU pricing for a site license of REEF: Student Users   1 Year   2 Years   3 Years   4 Years 0 - 4,999 $12 $11 $10 $9 4000 points per year $48,000 per year $44,000 per year $40,000 per year $36,000 per year Disadvantages of Poll Everywhere, iClicker Reef and other web-based or mobile based audience response systems My research and my interviews with professors who used Poll Everywhere or iClicker Reef revealed a few concerns and limitations of the web-based or mobile based audience response system 1. The free version generally provides limited functions and set restrictions on class sizes. Only small classes can use some of the technologies for free and only limited number of functions are available for free. 2. Some instructors are reluctant to use Poll Everywhere or iClicker Reef for quizzes because students may cheat using their smartphones or laptops. Even though instructors can "lock" the students into test or quiz, instructors are concerned about the reliability of this functions. Web-based or mobile based audience response system is much harder to ensure academic integrity than the iClicker2 system. 3. The CSU pricing for a site license of REEF ranging from $36,000 to $48,000 per year. This is an expensive recurring cost for the university and demands a large number of participants to be cost-effective. 4. Both Poll Everywhere and iClicker Reef don't work well in classrooms which have poor connections (e.g. some large lecture rooms on the first floor or basement). This issues can't be easily solved. 5. Web-based or mobile based audience response systems can have an adverse impact on students who do not own a laptop or a smartphone. Although they may be able to use text messages, the mandatory use of smartphones can be discriminatory and could result in unintended consequences. For example, students who do not own a smartphone may not participate or come 6. For both Poll Everywhere and iClicker Reef, there are instances where students forgot to terminate the services. They were charged by iClicker Reef and Poll Everywhere after they completed their classes until they realized the issue. Summary: Therefore, the best solution is to use the VETI grant to purchase iClicker2 student remotes and instructor bases. iClicker2 ensures security, consistency, reliability and can be reused in the future. Each of the participating instructors will own an instructor receiver and they will check out a free iClicker2 to students at the beginning of the class and ask the students to return the remotes before the end of the quarter.

Impact(s) if this project is not funded:

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

80

Students have to bear the cost of iClicker 2 remotes. The cost of an iClicker 2 student remote is $52.99 on the iClicker website or $43.74 on Amazon.com or Walmart.com plus tax and $6.99 registration fee. The failure of this project will create a vicious cycle. Despite the well-known advantages of iClickers and faculty members' interest, iClicker2 student remote is relatively costly for many students. Consequently, instructors are reluctant to require students to purchase iClicker2 remotes and no student response system is used in class. Some instructors may require students to download different apps to do multiple choice questions. The main concern is security and reliability and students may have to use different student response systems in different classes. By contrast, the success of this project will create a virtuous cycle. If the project is funded, it will create a ripple effect: more students will own iClicker2 remotes and use them in multiple classes. More instructors want use iClicker2 to improve class engagement, to assess student understanding, and get instance summary of student responses. The utilization rate of iClicker2 will further increase. The department of management will become an iClicker department and management students are able to use iClickers in multiple classes.

Cost: $$ (One time or recurring)

One time. No recurring cost. Cost of 600 iClicker 2 Student remote (Product ISBN 1429280476) = $50.00 x 600 units =$30,000. (Institutional discount rate) Cost of 10 iClicker 2 Instructor receiver base kit (Product ISBN 1498600107) cost $217.00 x 10 units =$2,170 (Institutional discount rate) Shipping $200 Tax =$2,734 Total cost plus shipping = $35,104

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes: 1. Improve students' engagement in class and transform traditional lectures into active learning and participative discussions. Track students' understanding promptly. 2. iClicker2 system summarizes the student answers and produces a real-time histogram. Instructors can use analytics for course improvement. 3. Increase attendance and participation. iClicker2 systems save instructors considerable time grading. Students are able to get to know their marks right after the quiz. Instructors can provide immediate feedback. 4. Instructors can poll students and get results in real time. Conduct anonymous opinion surveys Provide a voice for every student. Promotes peer discussion. 5. iClicker2 system has no recurring costs and can be easily re-used in future classes. 6. Integration with the Blackboard and PowerPoint presentations. 7. Support teaching innovations such as the flipped classroom. 8. One senior faculty suggested that SOTE score of instructors increases by approximately 10%, reflecting students' opinions on the "overall quality of instruction." Student Learning Outcomes: 1. iClicker enhances students' understanding of specific knowledge and improves their skills. Fosters engagement and creative classroom activities. Promote higher order thinking skills. 2. Improve students' critical thinking and problem-solving skills using situational judgment questions which facilitates students' understanding of discipline-specific knowledge, ethical or global issues 3. iClicker facilitates class discussion and improves students' communication skills during such discussions. 4. Train students to use information technology to assist decision making. 5. Increase classroom engagement, promote active learning, and encourage shy and under-prepared students to participate. 6. Improve attendance and learning in large-enrollment classes.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

I will conduct student and instructor surveys to assess the utilization and satisfaction of iClicker2. An instructor's satisfaction survey will be conducted to examine instructors' experience of using iClicker 2. Sample instructor survey questions: 1. I used iClicker2 student response system in the following classes. 1)   Class _____ Number of Students _____. 2)   Class _____ Number of Students _____. 3)   Class _____ Number of Students _____. 2. I use iClicker2 student response system _____.   A.   Nearly every class B.   About 3/4 of my classes C.   About 1/2 of my classes D.   About 1/4 of my classes E.   I don't use Jamboard 3. I use iClicker2 student response system for _____. ï¼ˆCheck all that appliesï¼‰ A.   Attendance B.   MCQs C.   Quizzes D.   Polling E. Anonymous polling   F.   Anonymous student feedback 4. iClicker2 student response system improved student engagement. A.   Strongly agree B.   Agree C.   Neutral D.   Disagree E.   Strongly disagree 5. iClicker2 student response system improved student learning. A.   Strongly agree B.   Agree C.   Neutral D.   Disagree E.   Strongly disagree 6. I will recommend iClicker2 student response system to my colleagues. A.   Strongly agree B.   Agree C.   Neutral D.   Strongly disagree Other Comments: _____ A student satisfaction survey will be conducted near the end of the fall term to assess the students' utilization and satisfaction of the iClicker 2. Sample student survey questions: 1. I used iClickers in A.   1 class this term B.   2 classes this term C.   3 classes this term D.   4 or more classes this term 2. My iClicker prior experience is A.   This was my first time using iClickers B.   I have taught with iClickers prior to this term 3. iClicker is easy to use: A.   Strongly agree B.   Agree C.   Neutral D.   Disagree E.   Strongly disagree 4. iClicker is fun to use: A.   Strongly agree B.   Agree C.   Neutral D.   Disagree E.   Strongly disagree 5. iClicker makes me more engaged in class. A. Strongly agree B. Agree C. Neutral D. Disagree E. Strongly disagree 6. My overall experience with iClicker. A.   Very positive B.   Positive C.   Neutral D.   Negative E.   Very negative Other Comments:

_____

Project Timeline   **Start:** 9/10/2018 12:00:00AM   **End:** 9/10/2038 12:00:00AM   ### First Quarter of Student Use   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-3562b20104e97777523203d7dc712294_VETI__2_iClicker2_Project_Collaborations.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-2c3c090d2d9a867ee677242bc4bd4821_VETI_BUDGET_iClicker2_Student_Response_System.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

81

| **Division** | Academic Affairs | Jack H. Brown College of Business and Public Administration | 5794759 |
| | Campus Division | **Xiaoyu** **Huang** crystal.huang@csusb.edu (909) 537-3238 | |

Total Amount Requested for FY 2017 $76,386.00

Project Title: Google Jamboard: Smart Whiteboard for Small Classrooms

Project Abstract:

This project is a collaboration between 8 departments in 3 colleges. To facilitate interactive learning and improve the digital communication skills of students, this pilot project aims to purchase 10 Google Jamboards. The long-term goal is to provide Jamboards for most small classrooms in the university. Integrated with G-suite, Jamboard is an interactive whiteboard with a 55-inch 4K touchscreen display and a rolling stand. This smart classroom technology will transform lectures into participative, collaborative and innovative learning. Most instructors and students will find Jamboard easy and fun to use. Students in the Palm Desert campus or other locations can use Jamboard to join the class remotely. Jamboard complements the current instructor classroom workstations in multiple ways. The basic functions of Jamboard include interactive whiteboard functions: writing or drawing using fingers or two Jamboard styluses and an eraser, adding copyright-free web images, moving words around, rotate images, and saving and sharing materials. Students can easily pull in work from Google Docs, Sheets, and Slides to Jamboard and make presentations. Instructor handwritings can be automatically recognized and converted to text, shapes, or post-its, which can be easily moved and resized.   The advanced features of Jamboard create endless possibilities for active and innovative learning. If funded, Jamboard will prepare business students to work in smart offices, allow geography students to use Google Earth on Jamboard and easily rotate 3D graphics, and students in engineering design classes can easily collaborate and visualize their designs. Jamboard also supports teaching innovations such as the flipped classroom.

Challenge(s) this project will address:

Small classrooms are generally equipped with an instructor workstation, a projector, a blackboard and/or whiteboard. This project proposes to improve the current classroom technology with Google Jamboard: an interactive smart whiteboard. It complements and adds value to current classroom technology since none of the current technology creates the interaction, flexibility, engagement, and convenience generated by the Jamboard. The challenges this project aims to address is the lack of an interactive smart board in small classrooms which hampers active, participative and interactive learning. Jamboard can replace blackboards in small classrooms and improve students' digital skills and discipline-specific knowledge, skills and abilities.   My preliminary student survey of 37 students strongly support this project (97%). 92% of the surveyed students want to use Google Jamboard in my class(es). 94% of the students think Google Jamboard is an ideal interactive smart whiteboard for instructors and students.97% and 94% of the students want to use Google Jamboard for individual or group presentations and group activities. 94% of the student want to use Google Jamboard to join class remotely if they can't come to class. This project is supported by faculty members in 8 different departments in 3 colleges. For management, entrepreneurship, computing, engineering and geography students, Jamboard not only improves class interactions, collaborations, and innovations but also address specific challenges for each discipline with its advanced features. They pointed out several challenges and the need for Jamboard to address these challenges. For geography students, although they can see maps as imagines in class, none of the classroom technology offers an interactive experience and allows the students to intuitively rotate maps or 3D images in class. The tightly integrated Google Earth app on Jamboard can significantly transform the learning experience of geography students.   For students in computer circuit design and engineering design classes, none of the classroom technology can serve the functions of Jamboard which support easy collaboration with other students and interactive 3D visualization of their designed products or computer circuits.   For business students, although many innovative workplaces are equipped with smart boards such as Google Jamboard and Microsoft Surface Hub, our classrooms only have whiteboard or blackboard. For entrepreneurship students, digital skills are essential for initial ideation process and remote collaborations. Jamboard can help prepare them for future innovative and collaborative smart offices. Overall, these challenges can't be addressed by current classroom technology and small classrooms need the have an interactive smart board to meet the needs of students in different disciplines.

Alternate solution(s) should this project not be funded:

If this project is not funded, instructors and students will continue to use whiteboards or blackboards in classrooms. Many small classrooms only have blackboards and do not have whiteboards. Students have limited opportunity to improve their digital skills. I listed three alternative interactive whiteboard or smart whiteboard classroom technologies. Option 1. SMARTBOARD Students commented that even their high school use interactive whiteboards. For instance, Rancho Cucamonga High School uses SMARTBOARD. A 75-inch SMARTBOARD SPNL-6275 Interactive Flat Panel costs $6,665. It includes SMART Learning Suite software. SMARTBOARD should not be purchased and used in our university for the following reasons. 1. High costs ranging from $4,000 to $9,800. 2. Very limited number of functions. It only offers basic interactive whiteboard functions, which is similar to the basic functions of Jamboard. 3. SMARTBOARD leads to low transfer of learning as the software – SMART Learning Suite software – is not widely used in workplaces. By contrast, Jamboard allows students to gain digital skills which are essential for their future career success as Jamboad, Google Docs, Google Cast, and Google Apps are used in many collaborative and innovative workplaces. Overall, the return on investment of SMARTBOARD is low due to high costs and limited functions. Option 2. Microsoft Surface Hub The main advantage of Microsoft Surface Hub is the use of Microsoft office. The disadvantages are: 1. The surface hub is a very expensive investment. The costs range from $9,499 and $21,999 A 55-inch touchscreen surface hub starts at $9,499. 2. The functions of surface hub considerably overlap with current workstations in the classrooms. Most of the expensive features of the surface hub can be accomplished using classroom workstations. Therefore, due to the low return on investment, the surface hub should not purchase. Option 3. Cisco Spark A Cisco Spark costs approximately $5,000, but its return on investment is low and should not be purchased for the following reasons: 1. It offers very limited functions – call, whiteboard, and share content –compared to Google Jamboard and Microsoft Surface Hub. The digital skills gained by students is limited. 2. The applications developed by Cisco are less widely used compared to Google Jamboard and Microsoft Surface Hub. 3. Relatively low market share and many workplaces do not use Cisco Spark. The transfer of learning to future workplaces is relatively lower compared to Google Jamboard and Microsoft Surface Hub.   In summary, Google Jamboard will result in the highest return on investment because: 1. Google Jamboard is relatively cheaper, approximately half of the price of a Microsoft Surface Hub. 2. Jamboard has intuitive design and interactive whiteboard functions which are easy and fun to use for all instructors and students. The touchscreen is easy to use just as an iPad or other tablets. The two Jamboard styluses and erasers are also easy and fun for instructors and students to use with no or limited Jamboard training. 3. It offers superior advanced functions supporting collaboration, teamwork, and innovation 4. The Google software – G-suite – such as Google Docs is widely used and Jamboard is expected to have a high market share, so many students are able to transfer their digital skills gained using Jamboard in their future workplaces. Jamboard is not only used in innovative smart offices, but also in many research labs and educational institutions. Therefore, students in many different disciplines can benefit from Jamboard.

Impact(s) if this project is not funded:

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

Students and instructors will not be able to have access to interactive whiteboard or smart board technology in small classrooms. Instructors will continue to use whiteboards. For classrooms that are not equipped with whiteboards. Instructors have to use blackboards and chalks. Blackboard chalk dust is considered to be non-toxic, but it creates a health concern for both instructors and students in the long run, especially in small classrooms. Replacing blackboard with whiteboard can solve the issue of chalk dust. However, none of these efforts nor current classroom technology can serve as an interactive whiteboard or smart board in the classrooms. Therefore, it is important to upgrade the small classroom technology and introduce Jamboard.

Cost: $$ (One time or recurring)

One time. 10 Google Jamboards = 10 x $4,999 = $49,990 10 Rolling stands = 10 x $1,349 = $13,490 10 Jamboard licenses = 10 x $600 = $6,000   Sales Tax $5,906 Shipping $1,000 Total = $76,386

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes: 1.   Improve student creativity, collaboration, and engagement. Facilitate flipped classroom, team-based, and project-based classes. Convenience and flexibility. All work can be saved and shared with students. It saves valuable class time. 2.   Easy and fun to use for both instructors and students. The basic interactive whiteboard function is expected to have high utilization rate. 3.   Software coordination and cost saving as the G-suite is supported by the ITS. 4.   Students in the Palm Desert campus or other locations can join the class remotely. 5.   Jamboard are mobile and used in multiple classrooms. Student Learning Outcomes: 1.   Improve students' discipline-specific knowledge, skill, and abilities. a)   Geography students can use Google Earth on Jamboard, visualize the 3D maps, easily rotate and resize the graphics can create a presentation or paper. b)   Jamboard is important for design classes such as engineering design or computer circuit design classes. Students are able to use Jamboard to build on each other's' work, visualize 3D images and modify their work. c)   Jamboard offers innovative and collaborative learning experience and prepares business students to work in innovative smart office settings. 2.   Improve students' digital communication skills. 3.   Improve teamwork and leadership skills. Students can use Jamboard as a digital platform for ideation, discussion, collaboration, and presentation. 4.   Promote students' creativity in class. Improve students' complex problem-solving skills using advanced features and improve organization skills using G-suite. 5.   Enhance the learning experience of students with disabilities such as hearing impairment.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

I will conduct student and instructor surveys to assess the utilization and satisfaction of Jamboard. An instructor's satisfaction survey will be conducted to examine instructors' experience of using Jamboard. Sample instructor survey questions: 1. I used Jamboard in the following classes. 1)   Class _____ Number of Students _____. 2)   Class _____ Number of Students _____. 3)   Class _____ Number of Students _____. 2. I use Jamboard _____.   A.   Nearly every class B.   About 3/4 of my classes C.   About 1/2 of my classes D.   About 1/4 of my classes E.   I don't use Jamboard 3. I use Jamboard for _____. ¡¼Check all that applies¡½ A.   Writing or drawing on whiteboard B.   Save whiteboard materials C.   Distance learning / All students to join the class remotely D.   Instructor Presentations E.   Student Presentations F.   Group activities G.   Advanced Jamboard functions, please specify: _____ H.   Other functions, please specify: _____ 4. Jamboard improved student engagement. A.   Strongly agree B.   Agree C.   Neutral D.   Disagree E.   Strongly disagree 5. Jamboard improved student learning. A.   Strongly agree B.   Agree C.   Neutral D.   Disagree E.   Strongly disagree 6. I will recommend Jamboard to my colleagues. A.   Strongly agree B.   Agree C.   Neutral D.   Disagree E.   Strongly disagree Other Comments: _____ A student satisfaction survey will be conducted to assess the students' utilization and satisfaction of the Jamboard. Sample student survey questions: 1. My instructor used Jamboard in A.   Nearly every class B.   About 3/4 of my classes C.   About 1/2 of my classes D.   About 1/4 of my classes E.   He or she don't use Jamboard 2. Did you get the chance to use Jamboard in class? A.   Yes B.   No 3. Jamboard is easy to use: A.   Strongly agree B.   Agree C.   Neutral D.   Strongly disagree 4. Jamboard is fun to use. A. Strongly agree B. Agree C. Neutral D. Disagree E. Strongly disagree 5. Jamboard makes me more engaged in class. A. Strongly agree B. Agree C. Neutral D. Disagree E. Strongly disagree 6. Jambaord improved my digital skills A. Strongly agree B. Agree C. Neutral D. Disagree E. Strongly disagree 7. Jamboard improved my communication skills A. Strongly agree B. Agree C. Neutral D. Disagree E. Strongly disagree 8. Jambaord improved discipline-specific knowledge, skills and ability. A. Strongly agree B. Agree C. Neutral D. Disagree E. Strongly disagree 9. Jambaord improved the overall quality of my class. A. Strongly agree B. Agree C. Neutral D. Disagree E. Strongly disagree   10. My overall experience with Jamboard. A.   Very positive B.   Positive C.   Neutral D.   Negative E.   Very negative

Project Timeline   Start: 9/10/2018 12:00:00AM   End: 9/10/2038 12:00:00AM   First Quarter of Student Use   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-eadce6df76f904ffe7fb81ca447c43f5_VETI_Grant_Project_Collaboration_Google_Jamboard.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-8e2594f29050b171cca656e25a295b88_VETI_BUDGET_-_Google_Jamboard.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

83

Division	Information Technology Services				
	Campus Division	**Leon**	**McNaught**	mcnaught@csusb.edu	909-537-3474

36074

Total Amount Requested for FY 2017   **$14,492.00**

Project Title: Accessible Technology Blackboard Ally Pilot: Increase Accessibility of Course Content in LMS

Project Abstract:

Accessible Technology will run a one year pilot of the Ally tool implementation in the Blackboard LMS. 21 courses in the MPA program will participate and undergo subsequent evaluation and remediation of course content. The Ally tool will provide information to faculty regarding the accessibility of their course content. Ally will also allow students to instantly access course content via various alternate accessible formats automatically. It is anticipated that this pilot will significantly improve the accessibility of course materials posted online in the MPA program across all 21 courses in the Blackboard LMS. Additionally, the same effect will be realized when scaled to the entire campus. Accessible Technology will assist faculty in creating, remediating, and/or replacing inaccessible instructional materials.

Challenge(s) this project will address:

Inaccessible course content includes Word documents, PDFs, PowerPoints, and other video and audio materials that are difficult or impossible to access for individuals with disabilities who use assistive technologies. This project will improve and provide statistics on the accessibility of course content posted to Blackboard (CSUSB's official LMS) Instructional materials on the LMS are not currently vetted for accessibility, except when courses go through a quality certification process. The course quality certification process is extremely limited and only a handful of courses will undergo this process in a given year. In the 2016-2017 academic year, 11,605 courses were created in the Blackboard LMS, of which 4,246 were actively used and 248 were exclusively online. Of the active 4,246, we can expect that many courses will have tens or hundreds of pages of electronic course content of which faculty are unaware of the level of accessibility of each. Blackboard Ally is an accessibility tool that will raise awareness among all faculty and provide an instant score of the accessibility of electronic course content in the LMS. In addition to providing an immediate score (out of 100%) of the accessibility of the documents posted in their course, the Ally tool also automatically attempts to provide the content in alternate more accessible formats such as plain text, HTML, etc. This proposal will fund the year 1 costs of Ally and pilot the use of this tool exclusively with the Masters in Public Administration which will have an anticipated 21 courses online during the 2017-2018 academic year (see attached letter of support from Department Chair). With an awareness, faculty will be able to reach out for assistance to remediate or replace inaccessible course content through Accessible Technology initiatives. Once the pilot has been successfully completed it is anticipated that the tool will be used across all courses on the LMS.

Alternate solution(s) should this project not be funded:

Should this project not be chosen, Accessible Technology will request the funds from the division of ITS.

Impact(s) if this project is not funded:

Inaccessible course content contained within the LMS can affect student learning and subsequent success and graduation. Additionally, the institution is vulnerable to complaints if student's with disabilities are not able to access course content in a timely manner. Finally, student's have different learning styles, and the Ally tool allows the course content to be accessed in different formats for audio learners etc. Not all students that require accessible course content are registered with the university to receive these accommodations. By proactively making course content in the LMS more accessible these issues will be avoided.

Cost: $$ (One time or recurring)

$14,492 initial

What are your intended Process Outcomes and/or Student Learning Outcomes?

1. Increased awareness of the importance of accessible instructional materials by MPA faculty 2. Improved access to instructional materials online for students 3. Higher quality/more accessible instructional materials in the MPA program and proof of concept for the entire institution 4. Proof of concept that can be rolled out to the entire institution

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1. Increase in number of MPA faculty seeking course remediation services 2. Instant availability for students to course materials in alternate formats, improved satisfaction 3. A significant measurable improvement in the overall accessibility of course content across the MPA program's 21 courses online 4. Establishment of workflow and processes that allow course content remediation to be scaled to the entire campus

Project Timeline   **Start:** 7/1/2018 12:00:00AM   **End:** 7/1/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-a1e857a969ef47615715aabdb5e698dd_Anderson_Chair_MPA_Support.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-57972f04d6243a1f30566d8b04b0e65a_Accessible_Technology_Blackboard_Ally_Pilot_Increase_Accessibility_of_Course_Content_in_LMS.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

85

| **Division** | Academic Affairs | College of Natural Sciences | | 3561 |
| | Campus Division | **Kimberley** | **Cousins** | kcousins@csusb.edu | 909-537-3313 |

Total Amount Requested for FY 2017 $23,000.00

Project Title: Watching molecules dance: defining "what is in this my sample" in the organic chemistry lab using FTIR spectroscopy

Project Abstract:

Fourier transform infrared spectroscopy (FTIR for short) is an easy-to-use method for analyzing solid and liquid samples. This technique uses IR light to excite bonds in a molecule, allowing them to stretch and bend in predictable ways. Analysis of data generated provides a window into what organic molecules look like. At CSUSB nearly 300 students are enrolled at a time in one of seven different laboratory courses, and FTIR analysis is used routinely as a method to decide "what is in my sample" during an experiment. Students in organic chemistry laboratory represent a range of majors: Chemistry and Biochemistry, Biology, Health Science, Bioinformatics, and anyone seeking to attend professional schools in medicine, pharmacy, dentistry and other health professions. Currently the organic labs share two of these spectrometers that receive heavy usage (as many as 30+ hours per week). One of these spectrometers is 13 years old, and has been repaired and upgraded several times already; the second is 10 years old. The useful lifetime of the technology is normally 7-8 years, and we seek funds to replace the older spectrometer with a modern instrument.

Challenge(s) this project will address:

The impending loss of the older FTIR will severely impact student access during labs, particulary when two labs run in parallel, with 48 students needing to run spectra at the same time. Currently having a second instrument allows us to continue at reduced speed whenever a replicable part, such as an IR source fails; with only one working instrument it is likely that there will be weeks with no access to FTIR analysis at all, in the upcoming year. In addition, FTIR analysis in the labs is routinely used to support undergraduate research projects. Current projects using FTIR include: the analysis of comet-like impact samples (Chemistry & NASA); the analysis of samples synthesized in synthetic labs (four or more research labs in Chemistry); and materials samples for the Center for Advanced Functional Materials (Various research labs in Physics and Chemistry). Students in the MSES program from Chemistry and Geology departments also use the instrument for research. Student research access would be severely restricted if only one FTIR were available, due to its priority for class usage.

Alternate solution(s) should this project not be funded:

If this project were not funded, we would be holding our breath and continuing to Band-Aid an aging FTIRs until failure. As replacement parts are not longer available, our students would be left with a single instrument to share for classes and research. The quality of the organic laboratory experience for hundreds of students would be reduced significantly with only a single instrument available. Even as the FTIR limps along, significant instructor time is currently lost due to necessary reboots when the instrument stops working midstream, and to troubleshoot connection and startup issues. The College of Natural Sciences has recognized that this is a high priority equipment item; however, the College received a much smaller equipment allocation this year than in prior years, and cannot fund all of its priorities. The Chemistry Department O&E, summer and CERF funds barely meet its obligations for functioning (photocopies, telephones, instrument repair, etc.) and nothing is left for purchasing replacement equipment.

Impact(s) if this project is not funded:

Without a replacement, the current instrument will fail in the near future, at which time organic student access to FTIR analysis in lab will be cut in half. Organic classes and research students will share a single instrument for analysis of both solids and liquids. This will magnify strain on the remaining instrument, and will also require instructors to continually exchange sampling accessories when analyzing solids versus liquids. This switching will also cause excess wear on the expensive (up to $5K) accessories. Some students will not be able to obtain FTIR spectra for their samples at all, due to too little scheduled time for instrument access. When routine maintenance is required for the one remaining spectrometer, students would be left with no options for FTIR analysis. Without the FTIR spectral analysis, these students will lose a central tool for analyzing the results of their experiments. Research students will be effectively blocked out of use of the single instrument during scheduled classes (30+ hours per week), hindering their research progress.

Cost: $$ (One time or recurring)

$23,000 for instrument, computer, installation and training and sampling accessory (one time cost)

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process outcomes Having a new FTIR will ensure continued student access for our ever-growing number of organic laboratory sections, which we've added to reduce course bottlenecks and increase graduation rates. Student will have improved attitudes toward organic chemistry and spectral analysis, with a more modern, properly functioning instrument that will analyze faster and more reliably than the current spectrometers (10 and 13 years old, respectively). The newer OS on the instrument workstation will have greater ADA compliance (for example, ability to effectively expand graphics for low sight users) than the older instruments with their outdated software/OS's, leading to greater accessibility. Student learning outcomes Students will experience hands-on problem solving, in assigning unknown structures based on bond vibrations, and in using spectra to determine when reactions have taken place, and whether the products formed are pure, based on the presence or absence of expected bond vibrations. This type of problem solving is routinely used in industry: for example, quality control analysis of a pharmaceutical compound; government labs: think CSI—analysis of a material from a crime scene; and academia: FTIR is a standard first analysis method in many labs. Therefore, students using the updated equipment will be better prepared for employment or graduate studies.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Process outcome assessments (1) We will document student usage by setting the default experiment to "save" mode, obtaining a list of spectral files (and therefore a count of spectra obtained) per quarter on the instrument, generating a total count of spectra run per quarter. (2) We will ask an attitudinal question about use of the FTIR on laboratory final exams in the third quarter (of a three quarter sequence) organic labs, specifically Chem 323 and 223B, Spring 2019, in order to measure student satisfaction with the instrument. Student learning outcome assessments Spectral problem solving skills are assessed on lecture examinations in Chem 322 and 421 and laboratory exams in Chem 222B/223B. During the 2018-19 AY exemplars of student problem-solving skills using FTIR spectroscopy on these exams will be saved to create a portfolio of student achievement in this area. We anticipate no loss, and possible improvement of student performance in IR spectral problem solving, with availability of the new instrument. In addition, our senior exit survey asks about preparation for graduate study or careers, and students often mention hands-on access to instrumentation. We will look for references to the VETI-funded FTIR in surveys over the next three years.

Project Timeline   **Start:** 7/1/2017 12:00:00AM   **End:** 1/1/2025 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-abb39ec3236a0df5073edabb4b26374d_VETI_BUDGET_TEMPLATE.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

89

Division				
	Academic Affairs	College of Natural Sciences		5427509
	Campus Division	**Jason**	**Ng**	jason.ng@csusb.edu	909-537-5412

Total Amount Requested for FY 2017 $122,649.00

Project Title: Development of the Exercise Center for Health, Accessible Movement, and Body Education and Research (the Exercise CHAMBER)

Project Abstract:

CSUSB Kinesiology prepares nearly 1,000 students in the major for professions that involve educating and guiding individuals with unique needs, e.g., medical patients, exercise clients, physical education students, older adults, pregnant women, athletes, individuals with a disability, etc. Examples of occupations expected to communicate and educate another human on performance of purposeful movement include exercise physiologists, physical therapists, and physical education teachers. While our program provides a strong background in the sciences and humanities related to human movement, a third fundamental domain is to prepare our students to perform, demonstrate, and effectively communicate with others on how to use movement appropriately and safely. We need to provide an environment that is conducive to this purpose, and CSUSB Kinesiology has identified an outdated weight room (HP B009) in the basement to have the most potential. While the weight room—in its current state—is set up for exercise training, it is however not conducive to actual teaching and learning practices. Therefore, we are proposing the transformation of this space into the Exercise Center for Health, Accessible Movement, and Body Education and Research (i.e., the Exercise CHAMBER). Three goals of the transformation include: 1) update the space to be more conducive to teaching and enhance students' learning experience, 2) develop more inclusive space/enhance compliance with the Americans with Disabilities Act (ADA), and 3) improve safety. We plan to address these goals by incorporating electronic equipment to enhance teacher-student communication, adding universal design and rehabilitation equipment, and reconfigure the space to enhance safety.

Challenge(s) this project will address:

1. Update space to be more conducive to teaching and enhance students' learning experience. a.   Background: The space has a variety of aerobic exercise equipment as well as free weights and selectorized machines. While learning movement is a basic fundamental expectation in the department, KINE students are preparing for future professions that will require them to effectively educate and provide proper instruction to others. Additionally, students outside of the major register for activity courses where, as part of their well-rounded university education, they acquire knowledge and skills needed to maintain lifelong personal wellness. b.   Challenges this project addresses: with assistance from Academic Technologies & Innovation (ATI) and Facilities Planning, we would like to address the following challenges: i.   There is no capability to present electronic resources (i.e., no computer, projector, displays, etc.). Installation of a computer, projector, and displays will enable an instructor to utilize electronic teaching resources such as PowerPoint lectures, PDF documents, videos, images, etc. ii.   Approximately ~250 students occupy the space each quarter (~750 students per academic year) for classes such as Weight Training (KINE 114E), and these numbers do not include other classes that might use the room when it is not occupied by regularly scheduled classes. Other classes that are not regularly scheduled to use the space but also do on different occasions include, but are not limited to, Exercise Prescription (KINE 483), Instrumentation in Exercise Science (KINE 486), Exercise Physiology (KINE 481), Biomechanics (KINE 480), Body Conditioning (KINE 114A), and Weight Training (KINE 114E). Students include both majors and non-majors of kinesiology. The student:instructor ratio is ~35:1, and with the small space, students have a limited view or access to the instructor. This restricts the instructor's ability to provide effective instruction to a large group and/or demonstrate movement for all to observe. When the entire class gathers as a group, those in the back have limited access to the instructor. We would like to use a mobile camera/tablet system that can project a live feed onto multiple display screens strategically placed around the room to allow students with an obstructed view to be better observe the instructor. Also, if students are working in small groups, a camera/tablet can record the performance of their movement, and the instructor can return to the group at any given time to review videos and provide feedback. iii.   The instructor's ability to present writing for the entire group is limited to one small ~4'x4' whiteboard mounted in the front corner of the room. With limited writing space, we would like to paint the walls with whiteboard paint (http://www.ideapaint.com/products/pro) so the instructor can present written information at any location of the room. iv.   When addressing a large group, the shape and acoustics of the room limit voice projection. To improve voice projection, we would like to install a microphone headset/speaker system to enhance audio for all to hear. 2. Develop more inclusive space/update to be more ADA-compliant. a.   Background: As we promote an inclusive culture, our curriculum prepares students to work with a variety of populations. In particular, we have increased our students' awareness and ability to work with individuals with a disability or chronic condition. Our pedagogy program is one of the few adapted physical education (APE) programs that has been accredited by the California Commission on Teacher Credentialing (CTC). That is, our student teachers at CSUSB have an advantage over many other teacher education programs in that our students receive specialized training to work with individuals with a disability or special needs. Some of the other few CSUs that are also accredited include the Pomona, Los Angeles, Long Beach, San Francisco, Chico, San Jose, and Humboldt campuses. b.   Challenges this project addresses: Our students need to be familiarized with inclusive environments, and we would like to develop this space that incorporates design concepts of a model inclusive fitness facility. All KINE students—regardless of concentrations in pedagogy, adapted physical education, exercise science, or allied health—at some point in their professions will encounter an individual with special needs. The development of an inclusive fitness facility will better prepare our students to serve individuals with a disability. Universal design refers to the design of products or environments that can be used by all individuals without a specialized design. Additionally, some students desire to work in a rehabilitation setting (e.g., cardiac rehabilitation, physical therapy, etc.). While the didactic content of our curriculum pertaining to working with individuals with a disability or chronic condition is well developed, our facilities lack actual an inclusive space for our students to practice their knowledge and develop practical experience. By developing this space as a model for accessible fitness facilities, we can use it in our classes that teach units on facilities management as well as teach concepts of accessibility and inclusiveness to all our students, especially those in our adapted physical education program. Moreover, for students with a disability who want to take a physical activity class for personal wellness, the current environment is not conducive to this, and therefore, some individuals might feel excluded. It is imperative that our department breaks down this barrier to promote inclusiveness. We are working with Facilities Planning to address all of the barriers in the space. Additionally, we consulted with Mr. Alex Martinez, an Expert Inclusion Specialist from the National Center on Health, Physical Activity, and Disability (NCHPAD) to help us assess and improve our level of ADA-compliance. Reporting to the U.S. Centers for Disease Control and Prevention (CDC), the NCHPAD is the only national resource center for physical disability and chronic conditions. In addition to rearranging the layout of the space to improve accessibility for individuals with a disability, he provided some of the following suggestions. i.   Resistance exercise equipment: resistance exercise is important for developing and maintaining health of the muscles, bones, and nerves. Obtain a variety of universal designed equipment (http://www.cybexintl.com/products/prestige-total-access.aspx#) that addresses major muscle groups: 1.   Chest press 2.   Overhead press 3.   Row rear delt 4.   Leg press 5.   Leg extension 6.   Seated leg curl 7.   Lat pulldown 8.   Cable column ii.   Aerobic exercise equipment: aerobic exercise is important for developing and maintaining health of the heart, lungs, and blood vessels. Obtain aerobic exercise equipment such as the following. 1.   An arm ergometer (Scifit Inclusive Fitness Pro1: https://www.scifit.com/product/ifi-pro1/) 2.   A recumbent stepper (Scifit StepOne: http://www.scifit.com/product/stepone/) 3.   An indoor rowing ergometer (Concept2 Indoor Rower Model D http://www.concept2.com/indoor-rowers/model-d) 3. Improve safety. a.   Background: Many of our faculty are trained in first aid, CPR, and automated external defibrillator (AED) operation in preparation for adverse events that might happen to an individual during exercise. b.   Challenges this project addresses: While the absolute risk of a cardiac emergency is low, in the rare event that it does happen, an AED (https://www.usa.philips.com/healthcare/product/HCM5066A/heartstart-onsite#galleryTab=PI) with the activation of the emergency response system increases the victim's chance of survival compared to activating the emergency response system alone. However, this room does not have an AED. To prepare for the rare, but life-threatening, cardiac emergency, we need to place an AED in this space. Many of our faculty are trained in CPR and the use of AEDs, and technological advances in these AEDs have made it easier for the operator to potentially save a life.

Alternate solution(s) should this project not be funded:

Due to our high priority we place on teaching effectiveness and enhancing inclusiveness on our campus, CSUSB Kinesiology will aim to make small changes that will eventually accumulate to a completed project, although it will be a much slower gradual process. We would need to examine our yearly budget and/or seek alternative sources of funding to make the changes in small steps over the next several years to enhance the teaching and inclusive aspects of the space. Alternatively, if the project was funded, this VETI grant would very well speed the process, allowing faculty and students to start using the space sooner (within a year of fund disbursement) to enhance graduation rates and support CSUSB's Strategic Plan and ultimately the CSU Graduation Initiative 2025.

Impact(s) if this project is not funded:

Similar to our previous response, if the project is not funded, the space will remain a space that is less conducive to teaching and limit accessibility for a longer period of time. We want to support the CSUSB Strategic Plan and the CSU Graduation Initiative 2025 sooner rather than later. CSUSB Kinesiology strives to be a leading academic program in the field, especially in the preparation of our students for their future professions. While our program provides a strong background in the sciences and humanities related to human movement, a third important domain prepares our students to perform, demonstrate, and effectively communicate with others on how to use movement appropriately and safely. The goal is to train our students to provide the best client/patient treatment and care, however, the current state of this space is not conducive to teaching. Thus an instructor's teaching ability is limited, which might then limit the student's learning experience and ultimately affect our students' future clientele/patients in their professions. This is especially relevant and important in preparing our students to work with individuals with disabilities. The space will provide students an opportunity to put into practice their treatment and communication skills in a learning environment. Additionally, to continue advancing in the promotion of inclusivity rather than separation, this transformation aims to create a more welcoming atmosphere to individuals with a variety of needs and advance the development of more tolerant and inclusive attitudes. This then will benefit the student preparing for a profession related to human movement; it will benefit the student who, during the college years, is still developing awareness of self and others; and it will ultimately benefit the future individuals that receive treatment from our students in their future professions.

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcome (PO) 1: Instructors will be able to use technology to access electronic resources (e.g., PowerPoint slides, images, videos, and websites) for teaching practices. PO 2: Instructors will be able to provide students a better view of themselves and instructional material through projection to multiple display monitors. PO 3: Instructors will feel more satisfied with the ability to address a large group.   Student Learning Outcome (SLO) 1: Kinesiology students will learn about concepts of inclusive fitness facilities. Using guidelines recommended by NCHPAD on inclusive facility design, we would like to place small signs throughout the space that indicate any change to the space that enhances inclusiveness. In this way, students will learn about inclusive design in fitness facilities. SLO 2: Kinesiology students will learn about universal design equipment available. SLO 3: Kinesiology students will learn how to use universal design equipment. SLO 4: Kinesiology students will learn how to instruct clients on the operation of universal design equipment. SLO 5: All students taking classes in this space, regardless of major of study, will become aware of inclusive fitness facilities and the presence of universal design equipment. The spread of this awareness will enhance acceptance of inclusive environments more as a norm to overcome stigmatization/separation of individuals with disabilities. SLO 6: As awareness of an inclusive fitness facility on our campus arises, this might encourage students with a disability to take classes to learn about personal fitness when they otherwise might not if the facilities were not available for them.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

To assess the POs above, a survey that addresses the following measures will be administered to instructors who use the facility: Measure 1 for PO 1: survey items will question the instructor's satisfaction and comfort level with using computer technology to enhance teaching in an exercise facility. Measure 2 for PO 2: survey items will question the instructor's frequency of use of a camera to project self to multiple monitors to enhance visibility to students. Measure 3 for PO 3: survey items will question the instructor's satisfaction with using the new additions in the space to enhance teaching.   To assess the SLOs above, a survey that addresses the following measures will be administered to students enrolled in classes in this facility: Measure 1 for SLO 1: survey items will question the student's knowledge of the inclusive fitness facilities before and after taking the class. Measure 2 for SLO 2: survey items will question the student's knowledge of available universal design equipment before and after taking the class. Measure 3 for SLO 3: survey items will question the student's comfort level with using universal design equipment before and after taking the class. Measure 4 for SLO 4: survey items will question the student's comfort level with instructing a client on how to exercise on universal design equipment. Measure 5 for SLO 5: survey items will question whether using a fitness facility that has inclusive design elements has encourages the student to want to see more exercise facilities adopt more inclusive concepts. Measure 6 for SLO 6: survey items directed to individuals with a disability will question whether the learning about the existence of this facility encouraged them to learn about personal fitness when they otherwise might not if the facility did not exist.

Project Timeline   Start: 6/8/2018 12:00:00AM   End: 6/8/2018 12:00:00AM   First Quarter of Student Use   Spring 2019

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-1d48c474c2837553e135ff38f4cbae38_Exercise_CHAMBER_Letter1_CSUSB_SportsMedicine.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-962d8f766df80f736e85bbd2e4a27267_Exercise_CHAMBER_Letter2_CSUSB_Recreation%26Wellness.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-996554e2a0339820ad7857420ed275a0_Exercise_CHAMBER_VETI_Budget.xlsx

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

90

| **Division** | Academic Affairs | College of Arts and Letters | | 701492 |
| | Campus Division | **Jacob** | **Poore** | jpoore@csusb.edu | 909-537-3448 |

Total Amount Requested for FY 2017 $25,762.50

Project Title: Coyote Radio & Advertising Multimedia Lab Improvements

Project Abstract:

Coyote Radio & Advertising is requesting VETI funding to help support strategic technological improvements for the Coyote Radio & Advertising multimedia training lab that serves hundreds of students per year. These improvements are necessary in order to handle increasing volume of students that utilize the lab space. The Coyote Radio & Advertising multimedia training lab serves the entire campus and averages about 120,000 student hours of participation every year. We serve students coming from numerous departments, and mentor students interested in gaining hands-on experience that will prepare them for media careers upon graduation. This includes the Communication Studies Department - 243b Radio Practicum class, plus student interns, volunteers and employees that come from the College of Business, the Art Department, Theater, English, Philosophy and more.   The Coyote Radio & Advertising studio is also the go-to space for campus voice overs, audio production, and audio engineering services for various projects from the President's Office and the Office of Strategic Communication and a broad list of clients.   The multimedia lab is also proud to support and produce faculty, staff, and student led programs such as the SKIP program, Let's Talk Relationships shows, Coyote Radio in Español, and the Sustainability Show. Year over year, the Coyote Radio & Advertising multimedia laboratory has grown in student and faculty participation. At this time, many strategic technological improvements to our lab are required so that we can serve our campus more effectively.

Challenge(s) this project will address:

Serving Students with Disabilities: We regularly have students participating who need special accommodations. This quarter three of our participants have physical disabilities--two in wheelchairs. These technological improvements will allow us to optimize our space and traffic flow to accommodate for their needs.   Space Optimization: Our multimedia laboratory has grown so rapidly; we have needed to borrow space on 5th floor of the library in order to accommodate the volume of students who want to participate in our program. The manager must be able to oversee what students are working on and students should be within the same vicinity in order to collaborate with each other for an expansion of ideas. The logistics of hauling equipment between six floors has become an overly complex process as there is currently no direct access from the basement to the fifth floor. We must currently detach all equipment, load it, go up a ramp, walk through the library, up an elevator, to the fifth floor, and then install the piece which may need to be moved back within the same day.   However, with some strategic improvements to our technology and workstations it can be resolved. We can move the students working on the 5th floor back to our primary facility in the basement. For example, we have a production room that can currently only accommodate one student at a time. With the VETI grant, we could purchase additional computer workstations and a small sound booth that would allow for 5-6 students to work in the same space.   Access and Security: Our multimedia lab currently accommodates anywhere from 200 to 500 students per year, spending at least 6 or more hours per week in the facility. This equals a total of 80,000 hours spent per year by students on the low end to 160,000 on the high end (not including special projects and specialty shows). •   Student Workers: approximately 20,000 hours annually •   Interns/Volunteers = approximately 10,000 hours annually •   Class Participants = approximately 51,000 hours annually The lab currently has only one staff member overseeing the facility which spans across 10 rooms (each with their own key access) and multiple workstations. We need a mechanism in place to better control the flow of students and know who is authorized to be in the lab at any given time. This traffic control is also important to protect the investment of equipment which includes tens of thousands of dollars of microphones, mixers, etc. that a student could be tempted to walk away with. We have met with facilities and received a recommendation to implement a new technology -- Coyote ID swipe entry system -- which could safeguard who is authorize to enter the lab and track who was there.   Outdated Equipment: We have always been a facility known for modeling our experience after the real world. Some of our equipment is so out of date that it is no longer relevant and nearly obsolete in today's media landscape. New technology will allow us to be more accommodating, accessible, efficient, and relevant. The upgrade is necessary in order to provide a quality experience to students through better in house training and services.

Alternate solution(s) should this project not be funded:

Coyote Radio & Advertising have some funding earned through student projects to support the implementation, but we may only be able to make partial improvements.

Impact(s) if this project is not funded:

 The problems will persist, and the number of students who want to participate and utilize the lab must be cut/limited. We will remain stagnant and inefficient and therefore not be able to serve students in the best way possible.

Cost: $$ (One time or recurring)

$25,762.50 in one-time costs.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes: 1. Better access, tracking, security, and protection of the lab equipment that will benefit students participating in the program 2. Optimized work spaces for students, including students with disabilities, due to new equipment purchases, allowing us to rearrange and improve our current student work spaces 3.   Increased use of the facility by students, because when our spaces are optimized it will create more room for students to work Student Learning Outcomes: 1. Students will utilize and interact with up-to-date equipment as they learn and train in broadcast media, graphic arts, videography, design, PR, strategic communication, which will help find success entering careers upon graduation. 2. Students will learn how to behave in a real media/agency job setting as they work in our high-tech multimedia lab, preparing them for what is to come and making them more marketable to employers. 3. Students will feel more confident in their capabilities after having practiced their craft in a safe and inclusive setting that is modeled after a real media/advertising agency.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

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KPIs for Process Outcomes 1. Qualitative data will be gathered from participants and quantitative data will be analyzed from the Coyote ID reader/keyless entry system to provide evidence for process outcome 1. 2. New work spaces will be implemented and set up in a fashion so that in maximizes the amount of students who can participate as it relates to process outcomes 2 and 3. KPIs for Student Learning Outcomes 1. We will gain feedback from graduates of the program and their employers to gain insights on how their experience in the lab helped them secure a job and prepared them for success, which will provide evidence for student learning outcomes 1 and 2. 2. An outgoing survey for program participants will evaluate and measure student confidence levels before and after their participation, which will provide evidence to support student learning outcome 3. 3. Students will have a portfolio of projects and campaigns they have worked on to show plus any awards or acknowledgements they have earned such as ADDY Awards, which will provide evidence of student learning outcomes 1, 2, and 3.

Project Timeline   **Start:** 6/18/2018 12:00:00AM   **End:**   9/19/2018 12:00:00AM   **First Quarter of Student Use**   Fall, 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-ea114c2e3cd46be67686968e46bdcdfb_Coyote_Radio_and_Advertising_Mulitimedia_Laboratory_VETI_Budget_2018-2019.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

95

Division	Academic Affairs	Jack H. Brown College of Business and Public Administration	
	Campus Division	**Francisca** **Beer** fbeer@csusb.edu	(909)537-3760

5784

Total Amount Requested for FY 2017   **$11,572.00**

Project Title: MBA Accessibility Videos

Project Abstract:

Every quarter the MBA office devotes a very substantial amount of time addressing the question "Why an MBA?" This is not surprising. Our perspective students are unsure of whether an MBA is really the best way to help them achieve their career goals.   These students are asking a pertinent question. Since the MBA program is structured around the working professional, most prospective students have full time jobs during the day, this can make getting to campus during normal business hours difficult. The cost in tuition fees and the time commitment implies that acquiring an MBA is a decision not to be made lightly. This leaves them with the question "Is the cost of an MBA worth it?" But, this is the case, professionals with an MBA earn considerably more than their counterparts with only an undergraduate degree. According to American Intercontinental University, MBA graduates can expect to start out making anywhere from $70,000 to $90,000, depending on their field.   Our goal is to produce three videos. The first video will address the question: Why an MBA? The second one: How do I apply? And the third one: What do I need to do to be successful in my MBA program?

Challenge(s) this project will address:

Students are seeking information. Our professors, career specialists and the MBA staff are inundated daily with questions such as: â€œIs an MBA right for me? What do I need to do to be successful in my program? How do the CSUSB programs compared with other programs? What is the value of an MBA? Should I get an MBA without a business background? Will this program conflict with my work schedule? Why get an MBA from an AACSB accredited program? Etc.â€ With only one staff member focusing on â€œprospectsâ€ many students are not receiving the additional detailed attention they need and deserve to address their many concerns and questions. The number of inquiries from our URM (underrepresented minority) group has increased recently. Research indicates that one of the barrier for this group was accessing college or knowing the steps to college. â€œWe didnâ€™t receive much guidance growing upâ€ and â€œWe arenâ€™t educated about the opportunitiesâ€. Our experience shows that student comments emphasize the lack of family and cultural support; many students are the first generation in their families to attempt a college career. Recently, our DACA students have started asking questions such as: â€œI am undocumented, can I apply?â€

Alternate solution(s) should this project not be funded:

One of the predictors of whether or not students enroll, is information. Without funding to produce the first and second videos, we will continue to address as many questions as possible on an individual basis. The JHBC has pledged to pay for our third video if (if and only if) funding for the first two is secured through this grant.

Impact(s) if this project is not funded:

There is the potential to impact approximately 1,200 prospective students per year; this is the average number of students who inquire about or programs or start an application for our programs. Unfortunately, the number of students applying to our programs has decreased. The dropped is more pronounced for our URM. We hope that these videos will encourage more students to apply or at least to finish the application process.

Cost: $$ (One time or recurring)

One time: We are requesting $11,572.00 to hire a graduate assistant 15 hours a week during AY 2018-2019. Our goal is to work with a student during the fall, winter, spring and summer quarters. Due to the complexity of the work, the pay rate would be $16.07 per hour. Once videos are finished only minor changes will be required. The college will cover the costs of updating and maintaining these videos.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Producing these videos will positively impact our process and have an influence on students' knowledge of the elements needed to successfully complete their application and degree. These videos will allow us to help and advise a significantly larger group of prospective and current students.   Process outcomes: (1) Students should get through the application process faster and should report less frustration with our admission process (CSU Apply etc.), (2) Students will understand the application and selection process better, (3) Faculty will have more time to address questions about assignments and curriculum, (4) staff will have more time to focus on advising current students which will address the 2025 initiative and (5) enrollment in our programs will increase. Student learning outcomes: Students will have a better understanding of the elements recommended for success in their programs. Students will immediately be exposed to our intended learning outcomes (ILOs).

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

We envision to evaluate our process outcome by comparing the documents submitted by students who have viewed the videos with the documents submitted by the other students. The average number of errors/difficulties experienced by each group will be compared. Surveys will be designed and administered to evaluate students understanding of the application and admission process. Surveys will also be prepared to evaluate what students, staff and faculty perceived the benefits of these videos are. Staff in the MBA office will record the number of questions they addressed about the admission process.   Number of students applying and enrolling in our programs will continue to be evaluated. Our student learning outcomes will be captured through surveys to calibrate students understanding of the elements recommended to succeed. The videos will outline the ILOs and evaluate students understanding of our learning outcomes.

Project Timeline   **Start:** 9/12/2018 12:00:00AM   **End:** 8/30/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-9a9d7eeadde61c424105dd1ec4f0d051_MBA_VETI_LOS_2018.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-9850d596db398e7b1550805594bea224_MBA_Videos-_VITAL.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

98

Division	Academic Affairs	Jack H. Brown College of Business and Public Administration	4517798
	Campus Division	**Vincent** **Nestler**	vnestler@csusb.edu (917)304-4696

Total Amount Requested for FY 2017 $79,132.72

Project Title: CPEER - Cyberlab Project for Enhanced Education and Research

Project Abstract:

Cyberlab is a remotely accessible lab environment that students 24/7 access to specially configured machines and lab environments. The platform is flexible so that professors create their own custom environment tailored to the needs of the class and the students. Cyberlab allows students access to software normally installed on machines only available on campus. Student can then access an essential learning environment without having to commute and be limited by times the campus is open. This lab environment can provide the equivalent of 275 Windows 10 machines. When students work on lab assignments, student machines can be seen and worked on by professors and teaching assistants. Students can pause their machine and come back to it later. Often when students take a class that teaches a particular type of software, when the class is over, they lose access to the software which usually leads to a loss of important skills that are necessary for successful job interviews and placement. Students will be able to access lab computers before or after the course.   Cyberlab will make it possible for students and faculty conduct research and gather data. Multiple machines that would normally take up large spaces in a room can now be done remotely and the data easily accessed and analyzed. A student will be hired to assist professors in the development of their custom environments and provide technical support. This position will be an outstanding opportunity for the student to gain highly marketable skills while providing an important service.

Challenge(s) this project will address:

Support for the Graduation Initiatives of 2025 in Several Ways Enhanced Instructional Technology Resource for Students and Faculty The cyber lab enhances the faculty's ability to work with students doing lab work. Faculty can have instant access to all student lab machines while the work to assist or correct the student as needed. Students can easily work in teams. The labs machines have a saved state capability, much like video games. You can work on a lab, and save the "game" and come back to it later. Or use the saved state before trying something that may ruin the work done to that point. Improved Learning Outcomes (Closing Achievement Gap) The more time students have access to technology the greater the chance of retention and mastery. Student time on task will be increase with the increased access. Since students can access CPEER 24/7 from any where they have a computer, a browser and an internet connection, they can work on labs, assignments and research at any time and for long periods of time. Enhancing Student Access Across Institution While the cyberlab is currently used by classes in the College of Business and Administration, these classes are part of student programs from across campus. Students from National Security Studies, Criminal Justice, Computer Science and Engineering, benefit from the use of cyberlab. Cyberlab will also welcome other colleges and programs that may find the infrastructure useful. Support for Online Classes Classes are increasingly being taught online. Classes that require a hands-on component are at a significant disadvantage. Cyberlab can be used to support online classes that require a hands on component, making more classes able to be taught online. Bottleneck Classes To reduce the load on bottleneck classes, multiple sections need to be run each quarter. If the course has a hands on component, there may not be room on campus to have the class. It also makes it difficult or impossible to do it online. CPEER can help reduce bottle neck classes by making more classes available online. PDC Access Students at the Palm Desert Campus will have equal access to the infrastructure. Reduced Cost to Students - Lab Fees There will be reduced cost to the students. Access to CPEER will be free and students can avoid the cost of paying for publisher labs. Enhancing Student Experience and Success Reduced Stress on Commuting and Working Students Students that have to work on projects on computers tied to a lab room currently must commute to get to the lab and do the assignments when not in class. For the student that has work or family obligations, coming in to campus to do their work can be challenging. This will allow students to do their assignments without having to leave work or get a babysitter. Student Research CPEER can be that basis for conducting research. Teams of students can work on the same machine with a professor or graduate student assistant even if member of the team are in different locations. It would also make it easier to collaborate with other institutions by granting access to machines. Valuable for Student with Special Needs The interface for working with Cyberlab is Web based. Most access utilities for the web will work with cyberlab - for the visually impaired, the magnifier can be used. For mobility challenged students, labs can be done from home or even from a wheel chair and a laptop and not require the student to go to a particular lab on campus. Enhanced Training for Student Use of Technology Cyberlab is based on the use of virtual machines. It is essentially one use of "the cloud". Many technologies of today and the future will be cloud based. All students working on cyberlab, regardless of the type of lab they are working on will be simultaneously getting hands-on experience with using the cloud to perform tasks. Training for faculty and students will also be provided by a student worker for new faculty and classes and when requested. Return on Investment Cyberlab on average can support about 11 classes of 25 students per quarter which is 250 students per quarter or 1000 students per year. This comes to 1100 students that can be potentially impacted per year. We can reasonably expect the hardware to last about 5 years bringing the number of students potentially impacted to 5500.   Of the requested 80,000, 15,000 will be provided by the IDS department and CBPA. What remains is 65,000. 65000/5500 will cost about 12$ per student. Please notes these numbers are abstract and depends on how the environment is used. Depending on the requirements of classes, many more machines maybe impacted. These are somewhat conservative estimates. It is also possible that more machines may be dedicated to research projects or for work with classes that require more resources. In addition, plans for future funding of the student worker that will manage and administer the infrastructure may come from Graduate Assistants or other scholarship students. Ability to Implement A prototype of the cyberlab has been built and implemented over since fall with great success. The interface and connectivity have been tested and used in several classes successfully. The equipment requested will scale the current pilot and provide a student assistant that will be able to administer and assist professors in providing the service to classes. Community Outreach CPEER can be used to work with community colleges and high schools. For example one way CPEER can be used is in support the Cyber Patriot competitions. Cyber Patriot is a national competition where students must compete in hardening and enhancing computer security. High schools often lack the infrastructure to adequately prepare for the competition putting students in our region at a disadvantage. CPEER could be used by small team preparing for the competition and pairing them up with experienced university students to act as coaches.

Alternate solution(s) should this project not be funded:

We will continue to seek out recycled hardware and donations where and when possible to develop and enhance CPEER.

Impact(s) if this project is not funded:

The impact is on potential. Student success is often tied to the amount of hands-on training they get. Giving students 24/7 access to machines that they can practice on will help them be more competitive in the workforce. The potential for more research opportunities will be lost.   Lab fees may continue to rise for some classes. Students that commute, work full time, have family obligations will continue to be at a disadvantage.

Cost: $$ (One time or recurring)

64,132.72 Requested. 15,000 will be provided by the JHB CBPA 79,132.72 total for CPEER Student labor will be recurring at about 15,000 per year.

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What are your intended Process Outcomes and/or Student Learning Outcomes?

The Expected Process Outcomes are: 1 - Increased student satisfaction 2 - Increased number of students getting hands-on experience/lab experience   Student learning outcomes 3 - Increased knowledge, skills and abilities acquired by students 4 - New research projects engaged in by students and faculty

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

When resources are requested for the lab a survey will be given that collects data on: 2 - the number of students using the CPEER 4 - if the use is for research and what kind of research. For all classes, students and faculty using CPEER, a survey will be requested at the end of each quarter. The survey will ask questions related to 1 - Student satisfaction 3 - The what types of KSAs the students engaged in. A report with the results of both surveys will be completed each quarter.

Project Timeline   **Start:**   8/1/2018 12:00:00AM   **End:**   6/28/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-0ecef469bc547eed53d0d5b5ce170514_VETI_BUDGET_CPEER.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

99

Division	Academic Affairs	Jack H. Brown College of Business and Public Administration	3896788
	Campus Division	**Vipin** **Gupta** vgupta@csusb.edu	909-537-5752

Total Amount Requested for FY 2017 $27,050.00

Project Title: Personal Public Speaking Virtual Studio, with Physical Lab at Vet Success Center

Project Abstract:

This project is a collaboration among the Department of Communication, CSUSB Career Center (including HACU and Insight to Industry), the Veterans Success Center (VSC), and Center for Global Management at the Jack H. Brown College of Business and Public Administration. The project will provide a personal public speaking virtual studio, in the form of a cloud-based solution, for 800 students (30 sections) taking the freshman GE course COMM 120, and for 800 students taking the JHBC required course MGMT 350 oral communication (30 sections).   This studio will also be available to the larger student body at both campuses through the Career Center, VSC, and Center for Global Management.   The studio allows students to practice their public speaking from anywhere, anytime.   Students get instant feedback while speaking through live simulated audience facial and body reactions.   They also get numerical feedback on various dimensions of public speaking, such as voice modulation, that can be tracked across their public speaking projects.   Students can get additional feedback from their peers within the solution. The virtual studio will be available to the students for a period of five years for practice and recording and can be used in all the courses.   For the students who need additional help, a physical lab has been created at JHBC through VETI funding last year. We are requesting an additional physical lab to be funded for the VSC for the benefit of veterans and other students who wish to use VSC facilities.

Challenge(s) this project will address:

Critical oral communication literacy is one of the general education learning objectives for undergraduate students.   This literacy is an essential study, life, and career skill for all students.   Effective oral communication literacy improves student growth mind-set, mental health, and self-efficacy.   It helps students stand up for their values, and helps shape values that support diversity and inclusion, by improving their capacity to engage and negotiate in class, in groups, and in life.   Presently, students have limited opportunities for practicing and improving their oral communication and public speaking skills.   All students take an oral communication GE class, such as COMM 120, but there is huge variation in the degree to which subsequent courses offer them opportunity to practice and receive expert feedback on their public speaking.   As a result, most students graduate without confidence in articulating their perspectives in a pubic forum, and in communicating them in an inspirational and audience oriented way.   Surveys of employers and alumni suggest that weak oral communication skills of our students is a major area of concern.   Research shows that oral communication literacy is best enhanced through integrated efforts that are course-embedded and that are reinforced through intentional extra-curricular efforts.   The virtual studio and the physical lab will allow the faculty from different courses to set elevated expectations in the classroom, and for the students to meet those expectations using the help of virtual feedback and of live peer feedback at the physical labs. Additionally, although the use of PitchVantage as a supplement for public speaking is the original intent, in fact the program is very versatile. The VSC is interested in using the program to assist veterans with building interview skills, interpersonal communication skills, and class presentations; skills that are cross-trained across many disciplines, and are valuable preparation for the workforce. The Career Center will utilize the program to train interview skills and instill speaking confidence for students who use the Career Center services, and who participate in the center's HACU and Insight to Industry programs.

Alternate solution(s) should this project not be funded:

We piloted the virtual studio in Winter 2018 in one of the upper division management classes, and received great feedback from the students.   This virtual studio was partly funded through VETI grant, and students were required to cover 40% of the cost of the virtual studio.   We found that a quarter of the students did not have resources to cover this residual cost, and were left out of the experience. We offered opportunities for these students to get fully VETI funded virtual studio by participating in the Global Path Seekers program for resume, interview, and global mindset skill building workshops by the Center for Global Management, in collaboration with JHBC Student Success Center. However, only some of the students were able to take advantage of this, due to time issues. Since the workshops have been scheduled late afternoon, they have been particularly popular with the Graduate Students.   If the project is not funded, we will work with the interested faculty to include virtual studio in their classes, but then the cost for the students will be thrice ($25/student, instead of $8); and students may be exposed to the studio in the later part of their program (e.g. as junior or senior), rather than as freshmen.   The opportunity to possibly make public speaking skills part of the signature learning of our students through multiple course embedding will have to be sacrificed.

Impact(s) if this project is not funded:

 If the project is not funded, it may have impact on student success and graduation, since oral communication skills are core to the growth mindset and agency of the students, that have been shown to improve
 student success.   It will also perpetuate inequities in student access to support services for improving their oral communication skills, particularly for the diverse students for whom English is a second language
 and who are reluctant to speak out because of linguistic issues.

Cost: $$ (One time or recurring)

The total budget is $27,050, of which $705 in one time physical lab at the VSC, and $20,000 is recurring and will cover 2500 students – primarily freshman taking COMM 120 and students taking JHBC required course MGMT 350, with the rest being used by the VSC, the Center for Global Management, and the Career Center. $20,000 of recurring cost will in future cover the freshman students joining each year, and allow them access to the virtual studio for a period of five years, plus lifetime access to the portfolio of their speeches.   This recurring cost will be phased out, as and when freeware becomes available for performing the same functionality. Transfer and graduate students, and other undergraduate students, will be able to get access at no cost through participation in the workshops of the Center for Global Management (offered through JHBC Student Success Center, CSUSB Career Center, and the VSC), or at reduced cost purchased as part of their course materials.

What are your intended Process Outcomes and/or Student Learning Outcomes?

"Process Outcomes": Increased student practice of public speaking, increased student community building through peer review and mentoring of public speaking, increased faculty embedding of public speaking requirements in course deliverables, increased student confidence in their pubic speaking skills, increased student accessibility of physical public speaking lab "Student Learning Outcomes": improved oral communication proficiency of students, improved critical thinking skills, improved teamwork and leadership skills, improved social interaction skills

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

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Adoption of the virtual studio in COMM 120 and MGMT 350 Establishment of Physical lab at the Veterans Success Center Participation of students at the workshops offered by the Center for Global Management, in collaboration with JHBC Student Success Center, CSUSB Career Center, and Veterans Success Center.

Project Timeline   **Start:**   6/18/2018 12:00:00AM   **End:**   6/14/2019 12:00:00AM   **First Quarter of Student Use**   Summer 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-8534b17d9cdf6d01889e052b09e776f4_SVO_PV_LOS.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-f0845eac7c2b2f03a76666a40895a6fa_Support_Letter_Student_Group_comm.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/235

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-dc525caef1b52a8951c72c28c76af0c0_VETI_BUDGET_Public_speaking_studio_2019.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

101

3366102

Division	Student Affairs				
	Campus Division Athletics	**Morgan**	**Walker**	mwalker@csusb.edu	(909) 537-5020

Total Amount Requested for FY 2017   **$17,240.00**

Project Title: TV, Tablets, and Calculators for the ATHLETICS TUTORING CENTER

Project Abstract:

In order to meet the growing need of our student-athletes to provide supplemental instruction in math courses to maintain athletic eligibility, the Athletics Department needs the tools necessary to implement an impactful math tutoring program. With the technology purchases, we are able to execute a tutoring center that can offer group tutoring sessions that meet the need and demand of our student-athletes. Specifically, Athletics would be purchasing a flat panel TV and several tablets to enforce active engagement between the tutor and student-athletes and several finance or graphing calculators that could be checked out by student-athletes to complete assigned coursework.   The overall impact this tutoring center will have for our student-athletes will be significant in regards to the development of a successful inquiry-based learning environment. In addition, the technology will ensure student-athletes are afforded the same opportunity as other CSUSB students for tutoring services, will create a meaningful learning environment, and will increase student retention rates and progress toward degrees.

Challenge(s) this project will address:

1. Current tutoring services for the CSUSB student body is generally offered Monday – Friday, 9 AM – 5 PM. For student-athletes who are juggling a full course load (on average 15 units per quarter per student-athlete), practices up to six-days per week, four hours per day, and working part-time, student-athletes are at a serious disadvantage for access to supplemental instructional assistance. These commitments for participating in an NCAA sport limits their ability to use traditional services offered by campus. Without additional tutoring options, our student-athletes are at a disadvantage and are at risk for a decrease in retention, timely graduation, academic success, and student engagement. 2. Currently the Athletics Department has no dedicated/central space for supplemental instruction/tutoring services for student-athletes – each quarter when tutoring is needed, we must request room space and potential equipment (laptops/Smartboard/calculators) to provide the needed academic assistance. 3. CSUSB Athletics has seen an 87.5% increase from academic year 2016/2017 to academic year 2017/2018 for student-athletes enrolled in remedial and college math courses with in the first two quarters of enrollment. With limited access for the majority of student-athletes to use campus tutoring services for math and in preparation for Executive Order 1110, supplemental instruction will be even more needed for our student-athletes starting fall 2018. 4. Campus tutoring is offered in various buildings on campus. As student-athletes are trying to find all available times to get academic work in, the Health and Physical Education building is their home. Coaches offices, athletic training room, and study hall are all located within the building. Creating an active learning space for tutoring within their "home" will foster student engagement, academic success, and pride for the department.

Alternate solution(s) should this project not be funded:

1.   Without this project, Athletics will continue to operate within the current services and campus limited hours for available to our student-athletes. The lack of space will be addressed quarterly to find available space within the Health and Physical Education building to continue to foster a sense of community within the Athletic Department and teams. 2.   If funding is not secured for this project, student-athletes will be asked to continue purchasing their own equipment and tools. Athletics has very limited available funding to purchase equipment and tools that tutors can utilize, therefore, items will have to be purchased over time or the Athletics Department will need to apply for grant funding to fund this project.

Impact(s) if this project is not funded:

If the project isn't funded, our student-athletes may struggle meeting the minimal requirements for meeting GI 2025 and recruits may choose other institution that provides additional supplemental instructional services geared specifically toward student-athletes over CSUSB. Academic support continue to be limited to the amount of tutoring available from campus and the one additional tutor Athletics is currently able to provide.

Cost: $$ (One time or recurring)

One Time - $17,240.00

What are your intended Process Outcomes and/or Student Learning Outcomes?

1.1 Increased student access to and use of tutoring and academic services 1.2 Increased student satisfaction with provided academic services 1.3 Students will use available and relevant campus resources to enhance academic and personal success to improve graduation rates.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1.1 Track attendance via sign-in sheet and certification by Study Hall Proctors or Tutors. 1.2 Surveys sent to all student-athletes to rate satisfaction of academic services and exit surveys provided to graduating seniors on confidence and effectiveness of academic services. 1.3 Continue with annual graduation and retention reports provided to Institutional Research and the NCAA tracking academic and graduation success rates.

Project Timeline   **Start:** 7/2/2018 12:00:00AM   **End:** 9/19/2018 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-2af65e748fdc8de62b4edfbd1d455014_Letter_of_Support_Tutoring.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-1ae2ccaf335abe23bf522ec9bbd7f14f_Approval_Haynes.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-49af9f724200117cca3fc34d152dcd3e_VETI_BUDGET_TEMPLATE_Tutoring.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

102

Division	Academic Affairs	College of Arts and Letters		4459233
	Campus Division	**Andrew**	**Thompson**	Andrew.Thompson@csusb.edu 909-537-7654

Total Amount Requested for FY 2017 $22,764.64

Project Title: From Consumer to Consummate Professional

Project Abstract:

To best prepare our photography students for a career in the professional field, the CSUSB photo department needs to make critical equipment updates. We currently have twenty-five Canon Rebel T5i DSLR cameras, but we need Canon lenses to loan to students allowing them to have a boarder selection of lens options. To prepare our most advanced photography students to be comfortable with high-end digital capture technologies, we are asking for a FUJI GFX 50S medium format mirrorless DLSR and selection of lenses. The GFX 50S is an economically friendlya cost-effective reasonably mid-range priced Professional grade camera that yields a higher megapixels count and file size than the average full-frame 35mm DLSR. The GFX 50S also doesn't require proprietary software, which means the digital files can be processed with the Adobe programs we are already using. This camera can serve as the bridge between a quality consumer camera like the Canon Rebel T5i and the realm of high-end professional equipment while staying within the Adobe ecosystem. Finally, to stay abreast with the cutting edge aerial photography and video capture, we would like to obtain a DJI Mavic Pro drone.

Challenge(s) this project will address:

â€¢ Students will be allowed more options in equipment for loan. â€¢ Students will become fluent with a professional level of photographic technology. â€¢ Students will have more opportunities to explore and refine their artistic vision. â€¢ The CSUSB Photography department primarily relies on donations to build up our loan equipment.

Alternate solution(s) should this project not be funded:

Our department doesnâ€™t have enough funds to purchase this equipment so the alternate solution would be to apply again year for a VETI grant.

Impact(s) if this project is not funded:

 Without funding we will not be able to purchase this equipment and will lag behind better-equipped photography schools.

Cost: $$ (One time or recurring)

$22,764.64 (Please refer to the VETI Purchase Request Form for detailed breakdown.)

What are your intended Process Outcomes and/or Student Learning Outcomes?

â€¢ The added selection of Canon lenses will be able to better serve the students that currently own or borrow one of the school's Canon DLSR cameras. Added lens selections allows for different composition and cropping options for students that are still in the process of developing their visual language â€¢ The DJI Mavic Pro drones will allow students to create cutting edge aerial photos and videos to be use for assignments and video productions. â€¢ The Fuji GFX 50s will allow students to become conversant with professional grade digital capture technology. Not all DLSR cameras are created equally. This camera has a sensor that is two and half times larger than the average DSLR yielding expansive high resolution files with ultrafine detail. The students will have a tremendous advantage entering the professional field with in-depth experience of a truly professional piece of of equipment.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

â€¢ Students will create new portfolios using the equipment that will be evaluated by the instructors of the photography department. The best images will be chosen to be displayed in exhibitions on campus. Students will be afforded opportunities to display their images, some for their very first time. â€¢ The Canon lenses will complement the inventory of Canon DSLR that are loaned out to students. â€¢ The FUJI GFX 50s will play a large role in a proposed commercial/studio lighting seminar. Students will be exposed to professional standards by working with instructors to photograph 3-Dimensional objects from other classes within the Visual Arts Department (Glass, Ceramic, Graphic Design, etc.) â€¢ The DJI Mavic Pro drones will be used in the intermediate and advanced classes to create videos for assignments such as, architectural, landscape, motion picture and more.

Project Timeline   **Start:** 6/15/2018 12:00:00AM   **End:**   12/3/2018 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-c86f7972a4b63cb8ba65a322a82f7f35_Letter_of_Support_for_Photography_Equipment_Laura_Salazar.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-b94b96b482488e84260f5a83fa1583be_Letter_of_Support_for_Photography_Equipment_Bryant_Uribe.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-480cceed0622409c2e7163982d01fc80_%2422%2C764.64_VETI_PURCHASE_REQUEST_FORM_2017.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

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Division	Academic Affairs	College of Natural Sciences		90596
	Campus Division	**Amanda / Brittiny**	**Salazar / Dennis**	asalazar@csusb.edu / brittiny.dennis@ 909-537-5494

Total Amount Requested for FY 2017 $4,281.77

Project Title: CNS Proactive Advising Outreach & Student Engagement

Project Abstract:

In today's higher education landscape, technology has a profound presence as it enables students to have readily available access to information and resources. One area in which we lack is the technology necessary to proactively outreach to our students. Often times we get consumed with the day to day tasks, and are unable to reach out to students who are not able to come in to our office. We are proposing for funds that will allow us to purchase video and audio recording equipment that will enable us to outreach to new, continuing and prospective students. We believe that through this technology, we will be able to introduce our presence and share academic knowledge with students in order to encourage a timely graduation. With GI 2025, we understand how critical academic advising is for student success. In previous years, higher ed institutions would expect the students to voluntarily seek out information and/or resources. In todays' higher ed culture, there is a shift in which the institution needs to actively reach out to the students. This is especially critical for first generation college students, who historically are more hesitant to reach out on their own. With 78% of our students being first generation (IR, 2018), we believe this project will allow us to bridge these gaps. We envision creating short videos such as: informational videos, academic workshops, tips for student success, student testimonials & spotlights, faculty, departmental & Palm Desert Campus (PDC) collaborations, welcome videos and highlight videos from campus events.

Challenge(s) this project will address:

*This equipment will enable us to better collaborate with faculty and departments to disseminate consistent and critical information to students which will allow information and resources to be accessible to students 24/7. We understand that today's college student is multifaceted in that they not only have responsibilities to their schooling, but also have work and personal obligations which may prevent them from being able to come in during our open hours. If granted funds, such online media will allow students to access this crucial information at their leisure. *With the College of Natural Sciences (CNS) currently being the largest college at CSUSB, serving approximately 5,825 students in 2017 (IR, 2018), we understand it is not feasible to reach out to every student with two professional advisors. This technology will allow us to reach a wide audience in a more efficient manner. In addition to new and continuing students, this will also allow us to effectively outreach to prospective students. *We currently have approximately 230 (IR, 2018) NSCI majors at PDC. Due to the geographical distance between campuses, it makes it extremely difficult for students to receive major specific advising. Often times, students have to schedule travel arrangements to make a trip to the San Bernardino campus or are forced to receive advising over the phone. With this technology, it will open lines of communication between professional advisors and PDC students as well as foster collaboration between SBC and PDC professional advisors.   *Our incoming transfer students attend a one day orientation. Depending on the SOAR date they attend, they are granted access to register after priority registration has taken place. This has a negative academic and emotional impact on our students as it can potentially prevent completion of courses in the proper sequencing and thus increase time to graduation. With this technology, we will be able to send critical information to these students electronically that can help mitigate this pitfall and clarify any confusion. With nine vastly different departments within CNS coupled with strategic course sequencing, we will create detailed videos for each major/concentration that will be tailored to the students' needs and interests. This will also allow for major exploration for students who may be interested in other disciplines within CNS. *With the upcoming Quarter to Semester conversion (Q2S) comes a lot of uncertainty amongst our student population. This technology will allow us to rapidly communicate any changes and/or updates to a large audience that will clear up any concerns or angst.

Alternate solution(s) should this project not be funded:

If funding is not granted, we will continue to look for creative solutions to creating media. We understand that this medium is widely used by our student population and therefore will continue to search for alternatives.

Impact(s) if this project is not funded:

Our online/web presence will continue to lack and underwhelm; we will be unable to keep up with modern day technology. Unfortunately we will continue to miss out on opportunities to connect and engage with a larger audience as we will be limited to what we can physically assist with, within the confines of our office. We will miss out on an opportunity to advise and encourage students via online media and thus be less effective in reaching such a large population.

What are your intended Process Outcomes and/or Student Learning Outcomes?

1) Increase outreach to a larger student audience and thus increase student access to critical information that can potentially affect time to graduation. 2) Reduction in waiting time for appointments as students can potentially get their questions answered through our online media. 3) Increased communication and academic advising with our PDC student population as well as PDC professional advisors.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1) A larger number of CNS majors will be informed in quick time on items pertaining to their academics, such as curriculum updates, course sequencing, course offerings, Q2S updates and potential student impact. This critical information will aid in timely graduation and keep us aligned with GI 2025. 2) There will be an increase in student satisfaction with advising within CNS. 3) PDC students and professional advisors will be readily informed on items pertaining to their academics, such as curriculum updates, course sequencing, course offerings, Q2S updates and potential student impact. This critical information will aid in timely graduation and keep us aligned with GI 2025.

Project Timeline **Start:** 7/1/2018 12:00:00AM **End:** 6/30/2019 12:00:00AM **First Quarter of Student Use** Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-3bc5ebfb4bebf3a97f02daf29d13fe8b_18%3A19_VETI_BUDGET__CNSPAC.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

105

Division	Academic Affairs	College of Arts and Letters		23750
	Campus Division	**Rueyling**	**Chuang**	rchuang@csusb.edu	909-537-5800

Total Amount Requested for FY 2017 $5,433.00

Project Title: CAL Academic Advising and Student Engagement Modernization

Project Abstract:

The College of Arts and Letters (CAL) Advising Center provides academic and career support for students within the college. CAL Advising employs four student assistants and student peer advisors earning practicum units for their respective programs. Assessing advising effectiveness and student satisfaction is an important component necessary to improve our service delivery while also supporting GI 2025 efforts. Collecting data through the employment of satisfaction surveys is the most effective way to capture student's experiences. To do this, we are requesting funds to purchase iPads for each advising desk. To encourage and increase student engagement with the college and advising team, we would like to expand our social media presence. To do this, we are requesting funds for the purchase of camera equipment. Finally, to increase student participation at campus events developed to increase awareness of academic resources, we are requesting funding for two laptops to use with students at these events.

Challenge(s) this project will address:

1) Advising surveys will effectively capture student feedback and experience with the peer advisors, professional advisor, and student assistants. 2) Feedback will help align advising practices to quickly respond to student needs. 3) Surveys are valuable tools for ongoing training and professional development for student peer advisors. 4) Student engagement and interaction will increase by having the ability to interact with students via social media. 5) Social Media activity will be planned, organized, and implemented by student assistants and student peer advisors. This will provide them with professional development opportunities. Currently, student assistants are unable to participate in student engagement through the use of social media because students should use personal devices to plan and post. 6) Currently student traffic to tabling events is minimal. We would like to increase student visits by creating an interactive and engaging table experience.

Alternate solution(s) should this project not be funded:

Within this proposal we are requesting technology that will allow us to expand and connect with students in the following ways: 1)   Improve advising quality and student experience with advising within the College of Arts and Letters (iPad) 2)   Create a social media presence in order to expand the CAL Advising Community beyond UH-203. This will serve to disseminate information students need to know regarding graduation, their programs, and more. Additionally student assistants and peer advisors will plan, organize, and create videos, acknowledge student accomplishments, and more via various social media platforms (video camera). 3)   Having a laptop at campus events will allow mobile advising. 4)   We will gain the ability to provide online demonstrations to students at events (campus/college resources, P.A.W.S. reports, MyCap, and more) If this proposal is not approved alternate solutions are as follows: 1)   Surveys will be sent via email. The consequence is lower response rate. 2)   Continue to use personal phone and internet based posts. Students will not have the opportunity to plan and manage a program around social media.

Impact(s) if this project is not funded:

 If this project is not funded, we will continue to work in the best way we can with the resources we have. We will not have as much data and interaction from the students who we serve but we are dedicated to being trustworthy, dependable, and dedicated resources for our students.

Cost: $$ (One time or recurring)

one time

What are your intended Process Outcomes and/or Student Learning Outcomes?

1)   Administering surveys to students who receive advising will provide the data necessary to improve the quality of services received by visiting students thereby supporting GI 2025 efforts. 2)   Information collected from student surveys will be used as a professional development and training tool for peer advisors and student assistants which will improve the overall advising program delivery. 3)   Student engagement and increased in-person and e-visits. 4)   Increased student awareness of campus/college resources. 5)   Increase of advising options (in-person, ZOOM, e-mail, and mobile).

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1)   Survey instrument data. 2)   Increased in-person and electronic advising sessions. 3)   Increased social media traffic and student interaction with the CAL Advising Office. 4)   Increase in the number of students advised and/or advising appointments made.

Project Timeline   **Start:** 7/15/2018 12:00:00AM   **End:** 7/15/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-75529d5e0176d08f79b6e040e3045ef2_Budget_VETI_2018.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

106

Division	Academic Affairs	College of Social Behavioral Sciences		1774122
	Campus Division	**Dionisio**	**Amodeo**	dionisio.amodeo@csusb.edu (909) 537-3587

Total Amount Requested for FY 2017 $125,939.00

Project Title: Tools to Record, Analyze and Integrate Neuroscience Study (TRAINS)

Project Abstract:

California State University San Bernardino (CSUSB) is one of the only CSUs to offer a bachelor's degree in biological psychology. This program is designed to provide students the background necessary for a career in biomedical research. Although we have several laboratories that provides students with hands on experience in biological psychology, this only addresses a fraction of the students in the biological psychology major while not including a growing list of psychology students interested in biomedical research. The number of students wanting hands on experience increases every year while our technical abilities and resources have not grown to meet this need. In this proposal we aim to update and enhance our teaching capabilities in biomedical research and practice by securing the funds to acquire multifaceted training modules in both human and animal physiology. The modules created by the firm iWORX has teaching modules examining human physiology including cardiovascular, respiratory, galvanic skin response, and neurophysiological recordings (ex. EEG). Including detailed instructions for over 50 experiments and exercises both experts and non-experts can conduct with undergraduate students. These modules can also be used for research purposes in human or animal physiology allowing for the design and implementation of customized experiments. These biomedical physiology training modules impact our campus as a whole due to their ability to be mobile and used in all buildings across campus, even reaching our Palm Dessert campus where research and hands-on experience is an even greater issue.

Challenge(s) this project will address:

In neuroscience, technical development and enhancement is constantly occurring. Whether redesigning equipment for the measurement of behavior, constructing implants to identify neural signals, or writing code to analyze data, neuroscientists are continually developing new tools to conduct their research. While there is interest within the psychology department to embracing new and innovative biomedical techniques in the classroom, much of this interest is restricted by affordability. While we have several biological psychology laboratories that provides students with hands-on experience in neuroscience, this only address a fraction of the growing list of psychology students interested in the biomedical research. To aid in connecting with the much greater population of students interested in biomedical careers at large, attaining the iWORX modules will significantly increase our capabilities. By integrating the iWORX modules in the key biological psychology laboratory courses, we will be able to significantly expand our ability to provide more students with an enriched education and the tools necessary for advancement into doctorate programs and STEM careers. Additionally, the use of this physiological equipment will also demonstrate CSUSB ability to adopt new innovative techniques, demonstrating its support of the current biomedical need. The electrophysiological systems created by iWORX has teaching modules examining human physiology including cardiovascular, respiratory, galvanic skin response, and neurophysiological recordings (EEG). These systems are equipped with programs and detailed instructions for over 50 experiments and over 150 exercises designed for lower and upper-division undergraduate students to conduct. These modules can also be used for research purposes in human or animal physiology allowing for the design and implementation of customized experiments. The iWORX system will initially be integrated into upper-division undergraduate experimental laboratory courses. However, the use of these systems is expansive and adaptable for a variety of different education levels and course-related content. Specifically, incorporating iWORX modules to bottleneck courses such as Biological Psychology (PSYC363) will aid in our 2025 graduate initiative. The equipment proposed here will ultimately be used in three settings: 1) undergraduate experimental laboratory courses in biological psychology and learning and motivation 2) because of their mobility, these units can be placed on reserve and used in other biology relevant courses wanting high impact mini exercises (including Palm Desert Campus) 3) the greater CSUSB community including campus workshops and outreach programs directed at high school seniors. Aside from the teaching features provided by these units, iWORX systems are also utilized to conduct research in psychophysiology, biofeedback, metabolic and cardiac function and muscle physiology. Aim 1. Majors in Psychology and Biological Psychology have the option of taking an experimental laboratory course where students receive practical training in advanced neuroscience techniques. Integrating this new technology into the classroom curriculum will provide students with a diverse new skill set including an introduction to electrical engineering and computer coding. Cutting edge neuroscience is becoming more and more reliant on computer programming, however many students in our department have no experience. Incorporating these systems into the class will provide many psychology students with an initial introduction to coding, taking away the smoke-screen of complexity and making it a practical tool for future research. Integrating this technology into the curriculum will expand students' skill sets with the potential to spark renewed interest in seeking further education. Aim 2. Many students in psychology find the bottle neck course PSYC363: Biological Psychology to be difficult because of the biologically focused material which is new to psychology students. iWORX has a mission to make biological information more digestible to the non-biology oriented students. By using this electrophysiological equipment in courses such as Biological Psychology we aim to make the material more relatable through conducting mini research experiments.   Aim 3. One mechanism by which we can have a greater impact on all CSUSB students is through the development of neuroscience workshops. We not only hope to reach psychology students, but also believe this will be an excellent opportunity to reach out to students in other majors who may need that initial exposure to ignite an interest in neuroscience. Sparking interest in biomedical research comes from experiencing science first-hand. The electrophysiological iWORX systems provides students with a visual representation of the relationship between cognitive processing and physiological activity. This is a critical link for many students who learn about the brain-behavior connection through textbooks and lectures. Providing students the opportunity to see research first-hand would further instill prior course lectures into reality. Additionally, this will provide students the opportunity to experience the field of neuroscience by seeing some of the most utilized and innovative techniques not currently available at CSUSB. Additionally, there is a substantial need for opportunities like this for students attending the Palm Desert campus. Due to the portable nature of the systems, providing additional workshops at our remote campus will be planned.

Alternate solution(s) should this project not be funded:

In the event that this proposal is not funded we will continue to apply for external funding to purchase these iWORX units. Because these units have been shown to be transformative in bringing students into science fields, we believe that continuing to apply for funding to purchase these units is time well spent. As instructors and researchers, we will continue to adopt alternative high impact practices in the event we do not receive funding for these iWORX units.

Impact(s) if this project is not funded:

Not acquiring these units will greatly limit the hands on training we can provide students interested in biomedical clinical and research careers. Other universities who have the opportunities to use equipment like iWORX in their classrooms and student workshops, have depended on these units greatly to train students, ignite undergraduate interest, and conduct solid impactful research.

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

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Cost: $$ (One time or recurring)

One time cost of $108,842 for 25 iWORX teaching/research systems. These systems are pre-configured kits that allow EEGs from both hemispheres to be recorded simultaneously, skin conductance and temperature, respiration rate, heart rate, blood pressure, or pulse volume. The dual potential input also allows simultaneous monitoring of EMGs from muscles and leads for cardiogram. The built-in, pre-calibrated sensors not only reduce set-up time, but also ensure dependably and accurate lab to lab results. The only reoccurring materials needed would be the pre-gelled disposable Ag/AgCl electrodes used for some of the experimental exams. However, the cost of these are marginal ($80 per 150 electrodes) and would be easily covered by laboratory fees.

What are your intended Process Outcomes and/or Student Learning Outcomes?

With iWORX electrophysiological systems, students will be designing, conducting and analyzing their own data, providing students with a better understanding of the scientific process as a whole. At the course level, students will design then conduct their own research which will prepare them to finally describe this work in student research presentations and manuscripts. Within one quarter/semester, students will get a glimpse of the entire scientific process from developing a hypothesis to collecting the data finally communicating those findings to a larger audience. While our department currently utilizes this format on a smaller scale, restricted to techniques laboratories currently employ, obtaining experimental units from iWORX will exponentially broaden the scientific questions students may examine.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Short-term indicators. 1.   Number of times iWorx equipment is checked by faculty and graduate students 2.   Number of times iWorx equipment is used for independent research by undergraduate and graduate students. Long-term indicators. 1.   Decrease in DFW rates in the introductory biological psychology course (PSYC 363) 2.   Increase in number of students who become in engaged in research in biological psychology or related fields

Project Timeline   **Start:** 9/24/2018 12:00:00AM   **End:** 6/8/2020 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/235-1ccab30dd1536fd80381139f25ac8ded_Letter_of_Support_for_VETI_Grant_-_Amodeo_Crawford_and_Amodeo.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-581e579333e544d95b7b886c770ba156_Letter_of_Support_from_Dean_Mohamed.PDF

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-f5f06a8716a1dc165783be3f59a00527_VETI_BUDGET_TEMPLATE.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

107

Division	Academic Affairs	College of Natural Sciences		6154599
	Campus Division	**Zhaojing**	**Chen**	zjchen@csusb.edu (909)537-5358

Total Amount Requested for FY 2017 $50,000.00

Project Title: Bone Densitometer for Assessment of Bone Mineral Density and Body Composition in Kinesiology Classrooms

Project Abstract:

The ability to accurately assess bone mineral density (BMD) and body composition using the most recent technology is essential to the kinesiology students. Dual-energy X-ray Absorptiometry (DXA) is a type of bone densitometer which utilizes a small dose of ionizing radiation to produce images of the body. The proposed model of DXA, Lunar iDXA, is the premier bone densitometer that provides the highest quality of scans and can be used for individuals from a broad range of sizes and conditions. The state-of-the-art equipment offers a non-invasive and precise measurement of BMD and body composition, which provides valuable information for diagnosing osteoporosis as well as body fat distribution. The iDXA will be incorporated into several kinesiology core courses focusing on body composition, such as KINE 481, 483, and 486. In addition, it will be demonstrated to several physical activity classes. When not used for teaching purposes, the iDXA system will also be used by undergraduate students engaged in research projects. Hands-on experience with iDXA will make our students highly competitive for admissions to health professional and graduate programs, as our students will come pre-trained on standard equipment. The system can also be utilized by students from the health science department and athletic department, which may provide important clues for managing eating disorders, or helping athletes make decisions on training regimens. The current proposal is for a Lunar iDXA Pro, which includes base configuration of BMD and advanced body composition. It eliminates the advanced software options of the more expensive model.

Challenge(s) this project will address:

Within a rapidly developing filed such as allied health professions and exercise science, a major challenge is ensuring that students stay current in terms of emerging technology. The current Lunar Prodigy DXA system in the Department of Kinesiology is more than twelve years old and now at the end of its useful life. The equipment is no longer serviced by the manufacture, and the core analysis software, enCORE, is way behind the latest version (7 vs. 17). The cost to upgrade the software alone would be $10,000. However, if it needed repair after upgrading the system, the manufacture will not service our aging system. Recently, many institutions and researchers are utilizing the new generation of DXA technology, Lunar iDXA, which is more powerful and demonstrates high accuracy and precision in total body measurement.   The Department of Kinesiology at CSUSB has nearly 1,000 majors. These students spend a large amount of their lab hours on body composition assessments using traditional techniques of anthropometry, skinfold, BIA, and hydrostatic weighing. It is necessary to expose students to the latest and more accurate technology of iDXA. In addition, Kinesiology students examine ways to improve bone mineral density (BMD) and body composition. The iDXA will be incorporated into numerous courses in which significant time is focused on body composition and BMD. This will give students the opportunity to actually see firsthand the information that is discussed in class. Courses in which the iDXA would be regularly used are Exercise Physiology (KINE 481), Exercise Prescription (KINE 483), Instrumentation in Exercise Science (KINE 486), Physical Activity and Aging (KINE 360), and Introduction to Fitness Testing (KINE 270). In addition, CSUSB students who are in activity classes would have an opportunity to see this equipment demonstrated. This would be especially interesting to students in courses such as Weight Training (KINE 114E) and Jogging (KINE 114C). Overall, iDXA will allow our students access to state-of-the-art BMD and body composition technology, and therefore allow their skills to remain relevant as they start their career in health professions or enter to professional/graduate programs.

Alternate solution(s) should this project not be funded:

The alternative is to continue to use the current DXA system. The current equipment has limited functionality and is unserviceable. If unfunded, the Kinesiology department will continue to search for opportunities to find funding for this equipment. Funding for this type of equipment is typically difficult to find within the CSU system.

Impact(s) if this project is not funded:

Opportunities for students to be exposed to the latest technology in 2 major areas (Bone Mineral Density, and Body Composition) will be limited. The students will be told about the equipment (as they are currently), but they will not have the firsthand experience that would help them as they apply to graduate programs and apply for positions in the health fields. The iDXA will allow our students to stay current and enhance their competitiveness.

Cost: $$ (One time or recurring)

$50,000 requested from VETI towards a $86,000 Lunar iDXA Pro, with the balance to be paid by the Department of Kinesiology. This will be a one-time cost.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes: 1.Students will be more enthusiastic and engaged in the body composition lab when iDXA is incorporated into the curriculum. 2.Kinesiology faculty will establish a database as a learning resource for related courses. Student Learning Outcomes: 3.Students will learn the assessments of body composition and bone mineral density using iDXA. 4.Students will be able to visualize the discussion of body composition (bone mass, fat mass, and lean tissue) as well as bone mineral density as it relates to disease processes such as osteoporosis.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Process Outcomes: 1.The level of student engagement will be assessed using anonymous surveys, and students feedback on the incorporation of iDXA in classes will be evaluated.   2.We will keep track of the number of times that Kinesiology faculty demonstrate DXA images in class in a variety of subjects, such as obesity, osteoporosis, younger adults, older adults, athletes. Student Learning Outcomes: 3.We will keep a log book to demonstrate that the iDXA is being regularly used and demonstrated to students. 4.Appropriately phrased questions regarding body composition and bone mineral density using iDXA technique will be given between regular questions in lab and lecture exams.

Project Timeline   **Start:** 9/1/2018 12:00:00AM   **End:** 9/1/2028 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-0c8dd3ba76181dbdb8d42270c2a0bca7_KSA_letter.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-3e81ac35cd5ddbfbd5f90016abf80a0f_VETI_iDXA_budget.xlsx

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

108

| **Division** | Academic Affairs | Undergraduate Studies | | | 1312 |
| | Campus Division | **Stephen** | **Wentworth** | swentwor@csusb.edu | 909-537-3035 |

Total Amount Requested for FY 2017 $15,867.60

Project Title: Tutoring Computer Lab Upgrade

Project Abstract:

The Tutoring computer lab provides 30 computers for student use. The tutoring room also uses 3 computers for online work. During the last 9 years (Fall 2008 – Summer 2017) the lab has had over 305,000 visits from 15,000 unique students at CSUSB.   The Tutoring computer lab has 14 computers that are 9-10 years old that need replacing. We no longer have funding for buying new computers. You have helped us out before and we have been able to keep the computer lab up and running for our students. This upgrade should get us through the next 5-10 years. We are the only lab in University Hall that provides computers for the general student body. We have the pay printing service that is used campus wide. We hope to provide assistance in online homework in Mathematics along with any needed assistance in computer usage. We have a full time staff member who both helps with the computers and provides Math assistance to the students. Our old computers are breaking down and we urgently need your assistance to get the lab back up to full strength for our students for the next several years. Thanks for you past assistance and we hope you can once again help us provide quality computers for our students to use.

Challenge(s) this project will address:

Aging computer are breaking down and fixing them is becoming difficult. Student deserve quality computers on which to do their school work. Will allow more tutoring of students with online homework.

Alternate solution(s) should this project not be funded:

Sorry, no alternative.

Impact(s) if this project is not funded:

 We will have less and less computers available for students to use. Students will not have the quality computer they should.

What are your intended Process Outcomes and/or Student Learning Outcomes?

1. Provide quality computers for students to do their school work on. 2. Provide quality computers for online homework both in the tutoring room and lab. Assistance will be provided for students using our computers.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1. Keep a record on student usage. 2. Keep a record of tutoring and assistance for online homework (mostly Math)

Project Timeline   **Start:** 8/1/2018 12:00:00AM   **End:** 10/1/2018 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-3450c724e3ad0bb870003f1eb36ecde1_VETI_BUDGET_TEMPLATE.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID: **110**

Division	Information Technology Services				10373
	Campus Division	**Lenora**	**Rodgers**	lenora@csusb.edu	909-537-7264

Total Amount Requested for FY 2017 $15,000.00

Project Title: Online Change of Major Submission

Project Abstract:

This project will support an online submission process for filing (or submitting) a Change of Major request. Students will be able to submit and pay for a Change of Major through their MyCoyote Student Center, using a one-time log-in. As a result of logging into their Student Center, this process will capture the student's current major by automatically populating entry fields from PeopleSoft. This will include the student's Name, Coyote ID, Email Address and current Major/Concentration.   This online process will promote the following: 1.   24/7 access to apply and pay 2.   Create an expedited workflow process to include an approval process with UGS 3.   Approximately 500+ students request for a change in major every month. They will be able to process this online at their convenience. 4.   Allow quality and timely service to students (no waiting in long lines, or meet business hours) 5.   Avoids students needing to hand carry their requests through a current 3 step process: a.   Registrar's Office -- determines eligibility and available majors and assess fee totals) b.   Undergraduate Studies (UGS) -- determines eligibility for meeting GI 2025 incentives c.   Student Financials (SF) – collects appropriate fees and returns requests to Registrar 6.   Accommodates students with disabilities in a less intrusive process 7.   Streamlines the current manual process contributing to the Graduation Initiative 2025 a.   Immediate updates to PAWS reports b.   Immediate access to all Academic Advisors for proper and timely advising meetings c.   Immediate eligibility for courses held (or reserved) for students pursuing impacted majors

Challenge(s) this project will address:

Streamlining this current manual process to an online submission process can avoid the following challenges: 1.   Avoids students from having to come to campus between office hours by addressing challenges for: a.   students with disabilities b.   commuter students c.   PDC students d.   online only students e.   students with work conflicts f.   students with child care limitations or conflicts 2.   Avoids having to wait in more than one line 3.   Avoids students from needing to hand carry requests to three different offices a.   Registrar b.   Undergrad Studies c.   Student Financials 4.   Avoids manual processing 5.   Avoids delays and progress to graduation

Alternate solution(s) should this project not be funded:

There are no other solutions. We would continue to offer in-person submission as we currently do, during our normal business hours. Students will continue to walk their requests to three different offices.

Impact(s) if this project is not funded:

Our Change of Major process will remain outdated, without improvements that coincide with today's technology and services. Our campus is growing and so should our services. With each new generation pursing their educational goals, it is important that we remain competitive with other universities by enhancing our technology and services, offering more online options to meet students' expectations. It would be detriment for this campus to impede the progression of students' success if we are unable to improve the current manual process, causing delays in timely graduation.

Cost: $$ (One time or recurring)

$15,000 one time consulting fees.

What are your intended Process Outcomes and/or Student Learning Outcomes?

This will increase student use of this service, allowing for 24/7 access, and contributing to student satisfaction with our services. Students will spend less time doing administrative work and can concentrate on the studies.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Statistics show that 500+ students currently submit a paper form to the Office of the Registrar. We will be able to count the number of students changing their major from the new online form.

Project Timeline   **Start:** 9/1/2018 12:00:00AM   **End:**   12/21/2018 12:00:00AM   **First Quarter of Student Use**   Winter 2019

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-a307863b5823d692aeafea9853c6568d_VETI-Change_of_Major_Statement_of_Support_20180316.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-33b7d6b579c9a066358f2286597178f0_VETI_BUDGET_TEMPLATE_2018_Online_Change_of_Major_Submission.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

111

4479539

Palm Desert Campus (PDC) **Marci** **Daniels** daniels@csusb.edu (909)537-5238

Total Amount Requested for FY 2017 $11,401.00

Project Title: Technology for Independence (TFI)

Project Abstract:

The Services to Students with Disabilities (SSD) office at the CSUSB Palm Desert Campus (PDC) is requesting $11,401 to provide improved access to assistive technology (AT), which will build the capacity of CSUSB students with disabilities to be more self-reliant and to fully engage in classroom and campus activities. The PDC-SSD office currently serves 8% of all CSUSB students with disabilities. Mastery of AT can be vital to academic achievement and obtaining competitive employment by bridging the gap between a person's physical/cognitive abilities and job duties. Upon graduation, students with disabilities often end up in low-level jobs in part because of an underutilization of AT caused by a lack of information on available technology and training on how to use AT devices. PDC-SSD proposes to purchase 10 Livescribe Smartpens and 30 specialized notebooks that students can check out. Users will complete an interactive one-on-one orientation session and a module on effective notetaking created by staff. The Smartpen enables users to record lectures and synchronize the recording with the notes that they take, which provides a targeted way to review notes. Additionally, students that are deaf or hard-of-hearing face communication challenges, which prevent them from engaging in the student experience and affect opportunities for employment. PDC-SSD proposes to purchase one iCommunicator software kit, two Sound Amplification Systems and two digital recorders to assist students with facilitating communication in the classroom and associated activities. Ultimately, this request will build students with disabilities' independence and capacity both academically and in the workplace.

Challenge(s) this project will address:

More than three quarters of college graduates with a disability fear they will be discriminated against by potential employers (Students are Afraid to Disclose Disabilities to Potential Employers, n.d.). According to the National Center for Education Statistics in 2011-12, 11.1 percent of undergraduate students in postsecondary institutions reported having a disability (National Center for Education Statistics). Based upon current CSUSB undergraduate enrollment, one can estimate that there are approximately 2,000 students on campus with a disability. Though an estimated 60 percent of disabled young adults matriculate to college after high school, nearly two thirds are unable to complete their degrees within six years (Institute of Education Sciences -National Center for Special Education Research). In addition to the challenge of graduating college in a timely manner, students with disabilities take twice as long to secure a job after graduation as compared to their non-disabled counterparts (Valles, Frernstad, & Ekman, 2015). For instance, among people ages 25 and older in 2014, 16.4 percent of people with a disability had completed at least a bachelor's degree, in comparison to 34.6 percent of people with no disability (Bureau of Labor Statistics). However, of people with a disability who had completed at least a bachelor's degree, 26.1 percent were employed in 2014, compared to 75.9 percent of college graduates with no disability (Bureau of Labor Statistics). Furthermore, according to the American Institutes for Research, on average high school graduates with disabilities earn 37% less ($6,505 annually) than their non-disabled peers. This gap increases significantly for those with master's degrees/advanced degrees to $21,000 annually (2014). According to Ahmad's article, Use of Assistive Technology in Inclusive Education: Making Room for Diverse Learning Needs, "Students with disabilities are found to be frequently trapped in a vicious cycle of exclusion from means for equal participation" (Ahmad, 2015). For individuals with disabilities, mastery of assistive technology (AT) can be vital to successfully completing a college degree and obtaining competitive employment because it helps to bridge the gap between people's physical/cognitive abilities and job duties by providing a mechanism that enables them to function more independently. This proposal addresses overcoming barriers to communication that students with disabilities face by employing AT and user trainings. Peer notetaking services are one of the most commonly used accommodations for students with disabilities, but an examination of the student experience with respect to these accommodations uncovers barriers to student success. Students report that peer notetakers fail to turn in their notes timely, do not take comprehensive notes, forget to include important subject matter or do not submit legible notes. Moreover, while the use of a peer notetaker is beneficial to students while they are in college, when they join the workforce, an employer is unlikely to provide this as a workplace accommodation. The Smartpen is an ink pen with a digital voice recorder that indexes the audio recording based on the handwritten notes in the Livescribe notebook, effectively integrating notetaking and audio recording (Livescribe.com, n.d.). A student diagnosed with anxiety and ADD reported that prior to receiving the Smartpen, "When I miss something, it creates an enormous amount of anxiety for me" (Computerized pen helps students with disabilities in unexpected ways, 2011). Smartpens capture everything students hear and write so they can be confident that they will not miss anything. The Livescribe Echo Smartpen, coupled with user training proposed under the VETI initiative, will build the capacity of students to take their own notes: a skillset which is transferable to the workplace. In addition to the barriers associated with notetaking, students who are deaf or hard-of-hearing face significant sensory challenges impacting their ability to communicate, which prevents them from engaging in the student experience and affects their opportunities for competitive employment. The U.S. Census Bureau reports that the deaf and hard-of-hearing population is comprised of approximately 28 million people; of that, over 4 million are profoundly deaf. The vast majority of profoundly deaf students leave the U.S. public education system with less than a sixth grade reading level and suffer from lack of education or career opportunities (Mitchell E. Ross, 2011). The PDC-SSD currently serves 11% of all deaf and hard-of-hearing students and anticipates that the number will continue to rise. In light of this, staff will require the ability to communicate with deaf and hard-of-hearing students on a regular basis. Currently, CSUSB students who are deaf or severely hard-of-hearing must request an interpreter with 72 hours advance notice. Through iCommunicator, PDC-SSD staff will be able to incorporate AT that will promote independent communication for students who are deaf or severely hard-of-hearing (icommunicator.com, n.d.). This solution facilitates real-time conversations by combining technologies that translate or convert spoken words into sign language, voice into text, and text into speech. iCommunicator enables students who are deaf to communicate with the hearing world when a sign language interpreter is not available. In addition, the device will help them improve their literacy levels by "translating" English in a variety of ways and through a built-in dictionary and thesaurus where users can obtain definitions or perform internet searches to gather more information on words and phrases. PDC-SSD is also requesting funding to purchase two Williams Sound FM Amplification Systems. Assistive listening technology helps students that are hard-of-hearing, including those with a cochlear implant or wear hearing aids, to hear better in various listening situations enhancing classroom communication. An FM system is a wireless system designed to help someone better identify and understand speech in noisy situations and over distances of up to 50 feet. The FM system consists of a transmitter microphone used by the speaker (such as the professor in the classroom or the speaker at a lecture) and a receiver used by the hearing-impaired student, the listener. The receiver transmits the sound to the student's ears. PDC-SSD staff will check out the FM Sound Systems to students with hearing impairments to use in the classroom setting. The purchase of two digital recorders will enable students that are hard-of-hearing to record lectures and classroom discussions. The advantage of recording is that any words or sentences which are at first difficult to hear can be replayed several times using a neck loop and hearing aid or a set of lightweight headphones.

Alternate solution(s) should this project not be funded:

Although PDC-SSD staff has identified assistive technology as a critical need to build the capacity of the students the office serves, both academically and for future employment, the office does not have the discretionary funding to purchase its own equipment. Should the proposal not receive funding, PDC-SSD staff will continue to borrow assistive technology from the San Bernardino SSD office, which in many cases results in students being placed on a waiting list. PDC-SSD staff will continue to recruit peer notetakers to provide students with notes; however, this action would not build the capacity of students to take their own notes. An alternate solution for deaf or severely hard-of-hearing students that need to communicate with their hearing counterparts would be to work with SSD to schedule ASL interpreters for all interactions with at least 72 hours notice. For all other interactions, PDC-SSD staff can communicate with students by writing back and forth on a piece of paper. In lieu of using an FM system, PDC-SSD staff could record lectures and send the digital files to the Assistive Technology and Accessibility Center (ATAC) for captioning. This solution is costly as ATAC uses a third-party vendor to transcribe videos and both the PDC-SSD and ATAC have extremely small staffs. Furthermore, instead of purchasing digital recorders, students' could record presentations and meetings using their smart phones and upload the content onto a digital hub such as YouTube so that they can repeatedly view it. This solution would not work for students that do not have smart phones and would be cost prohibitive for those that do not have an unlimited plan.

Impact(s) if this project is not funded:

Though an estimated 60 percent of disabled young adults matriculate to college after high school, nearly two thirds are unable to complete their degrees within six years (Institute of Education Sciences-National Center for Special Education Research). Moreover, students with disabilities take twice as long to secure a job after graduation as compared to their non-disabled counterparts (Valles, Frernstad, & Ekman, 2015). For instance, among people ages 25 and older in 2014, 16.4 percent of people with a disability had completed at least a bachelor's degree, in comparison to 34.6 percent of people with no disability (Bureau of Labor Statistics). People with a disability who had completed at least a bachelor's degree, 26.1 percent were employed in 2014, compared to 75.9 percent of college graduates with no disability (Bureau of Labor Statistics). Of those that are successful in obtaining employment, many remain in low-level jobs. For individuals with certain disabilities, mastery of AT devices is vital to obtaining competitive employment and improving work performance. Many workplace challenges can be either overcome or ameliorated by using AT; however, PDC-SSD lacks the funding to purchase such devices and must borrow them from the San Bernardino SSD office, which means students are placed on a waiting list. Without funding from the VETI program, CSUSB students with disabilities will continue to remain at a significant disadvantage compared to their non-disabled peers in regards to degree completion and obtaining competitive employment. Moreover, CSUSB students with disabilities will remain dependent on peer notetakers, which employers will not provide as a workplace accommodation, and deaf and hard-of-hearing students will continue to be impacted by communication challenges and be severely restricted on the activities that they can participate in because an ASL interpreter has to be scheduled 72 hours in advance or because they cannot hear. The AT devices proposed under this program are critical to bridging this achievement gap.

Cost: $$ (One time or recurring)

One time cost of $11,401

What are your intended Process Outcomes and/or Student Learning Outcomes?

•By July 31, 2018, PDC SSD staff will purchase 10 Livescribe Echo Smartpens, USB cords, ink, headphones and pen cases, 30 Livescribe notebooks and one iCommunicator 5.0 software kit. •Students participating in the program will be able to apply and integrate assistive technologies into learning within the classroom. •The SSD Notetaking Coordinator will create an online module on best practices and strategies for effective notetaking by September 29, 2018. •At the end of each quarter, 100% of students participating in the program will complete a satisfaction survey.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

The assessment plan for student learning outcomes for the Smartpen focuses on independence, multimodal learning, self-efficacy for taking effective notes, and engagement. Training pre- and post-assessments and a satisfaction survey will be administered, which will include qualitative and quantitative measures. PDC-SSD staff will provide Smartpens for students who are approved for this academic accommodation. Program participants will participate in an interactive one-on-one orientation and training session based on the Livescribe Smartpen 101 Course. Students will learn and demonstrate competence in Smartpen basics, record and playback, save, search and organize. Staff will create an online module on best practices and strategies to take effective notes using the Smartpen in academic settings. Students will take pre-and post-assessments that include quantitative and qualitative questions to evaluate their increase in knowledge. Staff will score the pre- and post-assessments and identify key themes in the qualitative responses. The results will be used to improve the online module. A log will be kept to determine the number of times that the iCommunicator software kit was employed and for what purposes. Checkout logs will also be maintained for the Williams FM Sound Amplification Systems and digital recorders. At the end of each quarter, participants will complete a customer satisfaction survey and responses will be tabulated and used to improve the AT experience.

Project Timeline   Start: 7/31/2018 12:00:00AM   End: 6/15/2019 12:00:00AM   First Quarter of Student Use   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/235-2bb32d08a8a3b2b36ee94f5cd7bd00c3_SSD_Student_Advisory_Board_Resolution.docx

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-abd4bac431b46417d5bb4395d00ff736_Copy_of_VETI_BUDGET_TEMPLATE_%281%29.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

112

| **Division** | Academic Affairs | Jack H. Brown College of Business and Public Administration | 24842 |
| | Campus Division | **Michael** | **Stull** | mstull@csusb.edu | 909-537-3708 |

Total Amount Requested for FY 2017   **$71,599.50**

Project Title: Virtual Connectivity for Students (VCS)

Project Abstract:

Students are increasingly telling about the challenge to stay engaged in courses when work, travel, weather, and personal issues prevent them from physically attending class. For students at the San Bernardino campus, missing even a small number of class sessions can create significant challenges, and can affect their overall class performance and even their progress toward graduation. For students at the Palm Desert campus (PDC) that wish to take specific courses (such as business), the distance issue often prevents them from taking classes that can help them complete their degree on time and/or limits their study area to only courses offered at PDC. Based on this student feedback, we aim to implement technology in the Innovation Learning Space in Jack Brown Hall (JB-287) that will impact the over 700 students annually (representing 17 distinct major fields of study on campus) that take coursework in this room. We propose to add video connectivity capacity that will allow students from the San Bernardino campus taking courses in JB-287 to join classes virtually when issues arise that prevent them from attending face-to-face and enable students from the PDC access courses previously unavailable to them. The end result is additional courses available for Palm Desert students and increased opportunities for all students taking courses in JB-287 to keep stay engaged and on track when they are unable to attend in person. This helps to ensure student success and in some cases will contribute to keeping students on track for a timely graduation.

Challenge(s) this project will address:

Each year, over 700 students studying at the San Bernardino campus (representing biology, business, criminal justice, computer science, economics, environmental studies, kinesiology, history, math, music, nursing, philosophy, physics, psychology, public administration, sociology and theater arts) take courses in JB-287. Many of those students often miss class sessions due to work, personal and other issues, but could join such sessions virtually if the option were available to stay on track and successfully complete the course. In one case last year, a student had to attend to a family emergency out of state and missed several weeks of the course. This resulted in having to take an incomplete grade, and ended up delaying his graduation date. Another student had a similar experience, where health issues arose toward the end of the course that kept him home-bound, resulting in not being able to complete the course on schedule. For other students commuting from home or work in areas such as the High Desert or other distant locations in the Inland Empire or Los Angeles area, they often encounter unforeseen issues that can make them miss class (e.g. traffic, accidents, and weather conditions). For students from the Palm Desert campus, course and degree program options are limited. In many cases, students seeking to take specific courses as electives in their program, or seeking to focus on a major/minor subject area not offered at the PDC (such as Entrepreneurship) have no other option than to commute to the San Bernardino campus to complete their coursework. The result can be additional time to complete the degree or students finding substitute courses at the PDC to stay on schedule (when they would rather take courses of interest to them). Given the technology solutions available, having students miss valuable classes due to legitimate work, life and other issues, or in the case of PDC students, invest the time and effort to physically commute to the San Bernardino campus or have their completion date delayed, makes no sense. Whether a student is ill, has to travel or stay late for work, has a personal emergency, is delayed due to traffic, or lives in the Palm Desert, they will be able to join the class session. The student will no longer have to ask the instructor "what did I miss last class session?" since they will not miss important class contact time that is critical for their learning and maintaining progress to graduate on time. The key is that learning progress can be impeded, but we have the technology to alleviate this! This project will address this by adding video connectivity capability to the JB-287 learning space. The installed technology will allow students to seamlessly participate in sessions virtually using their computer, tablet or smartphone leveraging the existing campus wide platform of Zoom. State of the art video cameras, microphones and large monitor screens installed in JB-287 will allow students and instructor to interact as one group, even when students are joining from distant locations. As an overall project, we feel that this addresses several of the desired criteria, including: • Technology that is directly used to enhance instructional technology resources for students and faculty in the classroom • Enhances student experience and success • Expands technology access at the Palm Desert Campus • Supports the CSU Graduation Initiative 2025

Alternate solution(s) should this project not be funded:

In the interim we have attempted to solve this issue by using Zoom/Skype and a small web camera with an embedded microphone. Unfortunately the results have been dismal as the quality of the video and audio using this solution diminishes the interactive component that would allow students to fully participate in the course discussion and activities. Students have indicated it is better than nothing, but they have a hard time hearing all the discussions and it limits their participation and learning.

Impact(s) if this project is not funded:

If this project is not funded, the following impacts are projected: 1.The over 700 students representing biology, business, criminal justice, computer science, economics, environmental studies, kinesiology, history, math, music, nursing, philosophy, physics, psychology, public administration, sociology and theater arts that take courses in JB-287 that cannot attend class due to legitimate time conflicts (work, travel) or emergent issues (traffic, personal emergency) will have limited options to attend sessions in those cases. The options currently available to students in this situation (e.g. Skype) are far from optimal and don't offer the full experience that technology can provide when classrooms are equipped effectively. 2. Students at the Palm Desert campus will continue to have limited options for taking courses. This, in some cases, decreases their opportunities for customized learning within their field of study and can lead to an increase in time to graduation due to limited course availability. Further, it limits their ability pursue fields that are not physically offered at the PDC due to resource constraints.

Cost: $$ (One time or recurring)

The overall project cost as outline in the budget proposal is $75,225 which includes all equipment, installation, shipping and contingency costs. This is a one-time cost, as all ongoing maintenance and upgrade costs will be covered by the Jack H. Brown College of Business and Public Administration. IECE will provide $5,000 in matching funds for this specific project. To date, IECE has invested over $100,000 to modify and outfit the JB-287 physical learning space (furnishings, other instructional technology).

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process outcome 1 – students at the SB campus will take advantage of the ability to join class sessions from distant locations or in instances when emergent issues prevent them from attending. Process outcome 2 – students from the PDC campus will be able to access elective courses and program options previously unavailable to them.

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Proposal ID:

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Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

For Process Outcome 1, we will track the number of students using the technology to join class sessions for each specific course. The data will be tracked by instructors and reported in aggregate each quarter of the academic year, including summer session.   For Process outcome 2, we will track the number of students from the PDC campus enrolled in courses. In addition, we will track the number of students who declare a new program option previously unavailable to them.

Project Timeline   **Start:** 8/1/2018 12:00:00AM   **End:**   6/30/2025 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-e716c9b8ea818b2d8fa28807067b19b4_Letter_of_Support_-_UpStarters_-_JB287.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-fe6e5dcd7f2499514702a9d34539b016_IECE_Support_Letter_-_VCS_-_JB287_-_Mar_2018.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-fca964f956f2d423f94d3b72460016cf_VETI_BUDGET_TEMPLATE_IECE_2018-VCS.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

113

Division	Academic Affairs	College of Education	5813349
	Campus Division	**Shannon**	**Sparks**	Shannon.sparks@csusb.edu	702-526-8721

Total Amount Requested for FY 2017 $62,246.00

Project Title: Teacher Demonstration Room, CE 307

Project Abstract:

Within the College of Education, The Department of Special Education, Rehabilitation, and Counseling prepares teaching candidates on strategies and techniques on how to work with students with disabilities. The purpose of this proposal is to create a teaching demonstration room where our counselor/teacher candidates can view best practices, strategies, and evidence based practices. Community partnerships are vital and our counselor/teaching candidates our representatives for our program when they visit local and surrounding districts. Our motto at CSUSB is "We Define the Future," and in order to define the future we must produce high quality teachers that can serve the diverse needs of San Bernardino and our local surrounding districts. At CSUSB, we serve a diverse population of students that commute from Palm Desert, High Desert, and Victorville/ Hesperia areas. Have a teaching demonstration room would allow for faculty to be able to model these best practices, allow for cross collaboration with other departments located within the College of Education. Students can hear instructors share and discuss 'how they should be teaching', but in order for them to be able to take that research to practice it is important that they are successfully translating that skill to practice. Overall, this project will enhance students college experience at CSUSB and promote successful outcomes as they prepare to become an educator in the field.

Challenge(s) this project will address:

Having a Teacher Demonstration Room will address the skills needed in order to be successful in the classroom. Teacher candidates can absorb content/ strategies that are provided by the instructor, but if they do not know how to demonstrate or model that competency then they will not able to generalize into our local districts and the diverse students we serve. The teacher demonstration room aligns to the CSU Graduation Initiatives 2025: o   Strengthening relationships with community and business partners, community colleges and PK-12 school districts to ensure incoming students are prepared for college. Building relationships is important to the College of Education. Having a teacher demonstration room will help us continue to produce high quality teacher candidates that will be working in our partnering districts. o   Expanding the number of online courses and concurrent enrollment programs to increase availability. Currently many of the courses in the College of Education are hybrid or online. When there are in-class sessions having a teacher demonstration room will allow for innovative and creative modeling and demonstrations to be occurring.   The Teacher Demonstration Room will be housed at California State University, San Bernardino, RM. 307. However there will be opportunities where faculty can ZOOM or use video conferencing to model best practices at the Palm Desert Campus. This room has the backing of all faculty in the Department of Special Education, Rehabilitation, & Counseling. The teaching demonstration room will improve students experience at CSUSB. If faculty and staff are invested then the students will ultimately reap the benefits. The return on investment will benefit our student enrollment and ultimately our programs to continue to many great and innovate techniques on campus. Students are highly motivated by technology and opportunities for real life modeling and demonstrations versus straight lectures often given by faculty. This is a sample of current enrollment from 2016-17, only looking at credential students ROI (Return on Investment), from 103 credential students from Early Childhood Special Education, Mild Moderate Disabilities, Moderate Severe Disabilities (i.e., this is just from one program not including other programs located within the College of Education).   Amount invested: 63,246.00 (One time fund request for CE 307) Amount returned: 6,600.00 (i.e., typical Credential program cost at CSUSB typically takes 2 years in our program) x 103 students (i.e., enrollment from 2016-2017 over a 2 year span)= 679,800.00 Investment gain from completing CE 307= 616,554.00 Return on investment of completing CE 307=974.85%

Alternate solution(s) should this project not be funded:

If this project is not funded we will have to request resources through another funding source, grant, or outlet.

Impact(s) if this project is not funded:

 Additionally, the October 2017 CSU GSU Graduation Initiative's workshop shared evidence-based practices and strategies to support student success. The Department of Special Education wants to model evidence based practices with students in the Teacher Demonstration Room. If we are not funded then we will not be meeting the CSU Graduation Initiatives.   If this project is not funded we will not be able to use a room that has been modified and adapted for us. Currently RM 307 was provided to us by Dean Fiene, College of Education. Currently it has been constructed and has a two-way mirror, but we do not have all of the funds to complete the project. We will end up having a room without any up-to-date technology and ultimately our students will not reap the benefits of this project. The Department of Special Education, Rehabilitation & Counseling has already invested over 30,000.00 in the space and construction of the two way mirror.

Cost: $$ (One time or recurring)

63,246.00 this will be a one-time cost.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Students will acquire the knowledge and skills in order to be a successful Special Education teacher(s). Students will be able to demonstrate best practices when working with students with disabilities. Students will be able to observe best practices modeled by faculty.   Additionally, teacher candidates will be able to role play best practices with students that they may be serving someday in the educational field.   Students will have a better understanding of concepts as they relate to research to practice. Lastly, teacher candidates will be able to understand concepts and practices as they relate to students with disabilities. Technological resources will be disability friendly and the room will comply to the American with Disabilities Act. Faculty and students will be trained on how to use equipment and resources located in the classroom.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Process outcomes will utilize a student survey (i.e., teacher candidates) of the teaching demonstration room. Students will be measured by faculty and staff on the completion of the tasks being demonstrating. A log will be kept of usage by faculty members.

Project Timeline   **Start:** 9/12/2018 12:00:00AM   **End:** 12/19/2018 12:00:00AM   **First Quarter of Student Use**   The sooner the better- the goal would b

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-a4dc37c5f1f7b559a84ad15a945c368e_VETI_BUDGET_TEMPLATE_RM_307_3_16_18.xls

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-e3366c8d24df4fa07bc821794a3fbf1d_VETI_BUDGET_TEMPLATE_RM_307_3_16_18.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

115

Division	Information Technology Services				5813167
	Campus Division	**Edward**	**Gomez**	edward.gomez@csusb.edu	(909)537-5183

Total Amount Requested for FY 2017 $55,075.35

Project Title: CNC router system

Project Abstract:

Computer controlled router systems or CNC routers are a necessary cutting and sculpting tool in the fields of art and design. This tool will greatly enhance our students' ability to create and learn valuable skill sets in manufacturing and digital fabrication that will significantly enhance their marketability for employment. CNC router machines are also commonly being used in High Schools and Community Colleges that are progressively incorporating 21st century tools that directly relate to current workforce demands. These workforce demands are seeking highly educated and multi-disciplinary candidates who are able to both create with computers and fabricate with CNC machines. This tool will positively impact our students by incorporating a much needed technology into the classroom which will make CSUSB on par with other community colleges and other higher learning institutions who have long included this type of training and skill sets into their curriculum and make CSUSB destination for higher learning in the fields of art and technology.

Challenge(s) this project will address:

1.   The CNC router system will provide students with a powerful tool for taking two dimensional designs into three dimensional realities. Students will be able to cut, carve and sculpt a wide variety of materials for manufacturing and design applications with computer controlled precision. This cutting precision along with the software system optimizes how materials are cut which in turn reduces the amount of waste often associated with traditional studio or wood cutting shops. 2.   Due to the wide range of applications this tool has, students will be able to create functional works of art that will merge the gap between fine art and industrial design, sculpture and furniture fabrication as well as studio arts and design. 3.   Our students are currently limited to small scale PLA or PVC plastic prints when producing computer designed 3D objects. Due to the large scale table size of the proposed CNC machine being 4 x 8 feet in dimension, along with the wide variety of tool attachments, students can easily scale up their designs for a wider range of applications using stronger and more structural materials. These tool attachments can be configured to cut various hard materials such as wood, composites, aluminum, steel, plastics and foam.

Alternate solution(s) should this project not be funded:

I will continue applying for grants because this is a necessity in order to be competitive with other schools.

Impact(s) if this project is not funded:

 If this project is not funded, CSUSB will be at a disadvantage and not competitive with other schools that offer this technology. Out students will not have the opportunity to create large scale computer controlled projects with hard materials.

Cost: $$ (One time or recurring)

one time cost of $55,000.00 and minimal maintenance costs.

What are your intended Process Outcomes and/or Student Learning Outcomes?

1.   New Digital Fabrication projects will be added to the current curriculum that will allow for a greater range of sculpting, carving and cutting assignments. 2.   Collaboration between Design and Studio based students to produce functional art and digital fabrication projects that merge the two disciplines. 3.   Projects will be added to the 3D Foundation courses in order to produce unit based sculptures that explore the many possibilities of slot connections in various construction materials. 4.   Students taking Ceramics will be able to carve and sculpt plaster molds. 5.   The Glass courses will also be able to form 3D designed molds for casting. 6.   The Sculpture courses will greatly benefit from the ability to cut, and sculpt various materials for fine art applications. 7.   The Design courses will be able to prototype point of purchase displays, product designs and typographic and imaged based signage for commercial applications. 8.   The Wood and Furniture courses will be able to fully realize 3D designed furniture with great precision that results in a significant reduction of wasted wood materials. 9.   The Printmaking classes would also be able to use this tool to create wood blocks for wood block printing. 10.   Weekend and community based workshops can be programmed allowing for the greater student body and community to learn about new technologies and the safe operation of the tool. 11.   The Theater Department would also greatly benefit in using this tool to produce various props and on stage sets.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

12.   Lab attendance and the hours of operation of the tool will be kept and recorded including the use and purpose of each project created with the tool.

Project Timeline   **Start:** 4/2/2018 12:00:00AM   **End:**   12/1/2018 12:00:00AM   **First Quarter of Student Use**   Winter, 2019

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/235-44b05b1e68f071142041aafbe5d6c2ed_VETI_BUDGET_TEMPLATE_%282%29.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

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| **Division** | Academic Affairs | College of Natural Sciences | | 9086 |
| | Campus Division | **Arturo** | **Concepcion** | concep@csusb.edu | (909) 537-5330 |

Total Amount Requested for FY 2017 $108,160.00

Project Title: Sustaining and Maintaining the Mobile App Dev (MAD) Team to Provide Support, Education, and Training of CSUSB Students in Mobile App Development

Project Abstract:

The mission of the proposal is to provide support, education, and training of CSUSB students in mobile app development. Mobile app development is one of the important skills a student should have in order to participate in this still growing technology or at least to understand the impact of mobile apps to everyday life. To achieve this mission, we propose the following goals: First is to offer a mobile app development boot camp to interested students in CSUSB. The boot camp will be introductory but will cover the development frameworks for Android and iOS, the two most prevalent platforms on mobile devices. The second goal is to continue to support the teaching of software engineering (CSE 455) course with the MAD team providing the expertise and tutorials for the class. Former students of CSE 455 are the source of incoming interns for the MAD team. Without these students from CSE 455, there will be no replacements of interns in the MAD team because they have graduated. The third goal is to make the MAD team a provider of mobile app technology for projects that individual clients might want developed. One source of these mobile app projects is the IECE Entrepreneur Concentration where undergraduate CBPA students propose business ideas using mobile apps. Without the realization of their business ideas in the form of a mobile app, the commercialization of these ideas will never happen.

Challenge(s) this project will address:

There are various challenges this project will address: -- Lack of knowledge and understanding by the general student body at CSUSB in the technology of mobile apps. Although mobile apps are nowadays common and prevalent, most campus students don't have any idea on how are they developed and what makes them "tick." There is interest to learn but there are no classes or training sessions available in campus to fulfill this need. All the student need is an understanding of the framework of mobile apps and the technologies that enable them to perform useful functions. We propose a one-week mobile application development Boot Camp during summer open to campus students. The students will learn the basics of Android and iOS mobile app development. They will be able to create simple mobile apps for their own purpose. The pre-requisite is that they must have knowledge of programming in any language. -- Lack of knowledge of students taking CSE 455 (Software Engineering) in mobile app development technologies and systems. There are no courses in the B.S. Computer Science and B.S. Computer Engineering degree programs that prepare students for mobile app development. They are not taught how to develop applications in Android or iOS platforms. Both of these platforms require the knowledge of Java, Swift, XCode, HTML, CSS, … besides knowing MySQL, PHP, and other server and database systems. How can these students learn mobile app development and build a working prototype at the end of a 10-week quarter course? -- Lack of support for teaching assistants to assist CSE 455 in providing expertise and assistance to students in mobile development. Currently the School of Computer Science & Engineering can only support one ISA at 10 hrs/wk for each class that has more than 30 students. The ISA assist the instructor in grading assignments and not assisting students in the lab project. Furthermore, there are an average of 50 – 60 students that take CSE 455 every winter quarter term. This is inadequate to support the software engineering class (CSE 455). -- Lack of CSUSB resources in mobile app development for individuals who may have ideas of a mobile app. The Information Technology Services (ITS) doesn't have the resources to support individual clients who may have ideas for a mobile app project. ITS has purchased ModoLabs development platform and is being used to developed mobile apps for the campus students and offices but not for individual clients. Currently we have the following individuals requesting to develop mobile apps: o   Delvonne Daniels, CBPA marketing graduate and requesting for an app to connect up-and-coming bands to base fans. o   Daniel Larrasolo, a San Bernardino individual interested in creating a betting game for predicting winning football teams. o   Prof. Amy Wheeler, Department of Kinesiology, CSUSB, is interested in a app to reduce stress. o   Ginger Hartman, Development Associate, COE, interested in developing an app for the COE building anniversary. o   Vanessa Ayer William, Ph.D. candidate, School of Public Work, Loma Linda University, requesting to develop the Congenital Heart Disorder (CHD) app as part of her Ph.D. dissertation. See Letter of Support, Appendix A. o   Steven Abbott, Resident Entrepreneur, Entrepreneur Program, CBPA, requesting collaboration of entrepreneur majors with MAD team to develop mobile app projects. We are working on two projects with them: Umvelt and EZPark. See Letter of Support, Appendix B. -- Need to hire UI/UX designers for mobile app development. It is a well known fact that if the UI (User Interface) is not attractive or intuitive, the mobile app will not be successful. Furthermore the UX (User Experience) is equally important. The user must be able to navigate and go through the different UI to obtain the function or service the user is seeking. The app should provide an intuitive way of searching the app with ease and successfully accessing the function or service. The MAD team consists of 6 developers and two UI/UX designers. The developers are computer science or computer engineering students while the designers are graphics design students.

Alternate solution(s) should this project not be funded:

o   We have been developing the mobile app, CaseAide, for nearly three years now and this time we have a new business model on how to monetize this app. We have developed a Web app where individual social workers can buy the app through PayPal. The buyers will be able to download the app to their mobile phones. Our strategy is to generate a core of social worker users who will attract other social worker users to buy the app and hopefully, the social work state agency will buy the app for their employees. See Letter of Support C. o   Another possibility is a grant from NIH to develop the Congenital Heart Disorder (CHD) app. We are supporting, Vanessa Ayer Miller, a Ph.D. candidate at the School of Public Health, Loma Linda University, dissertation where a mobile app will be developed to assist care-givers of children with CHD. If the NIH grant will be awarded, there will be support for the MAD team. See Letter of Support from Vanessa Ayer Miller in Appendix A.

Impact(s) if this project is not funded:

If this proposal will not be funded and we are unsuccessful in generating revenue, the MAD Team will be dissolved. The software engineering course (CSE 455) will lose a valuable asset in teaching this course. The student interns act as consultants and experts in the CSE 455 course for mobile app development. The School of Computer Science & Engineering will lose an important asset in enhancing the education and training of CSE students in the application of software engineering principles and best practices in the development of mobile apps. Furthermore, CSUSB will lose an asset of providing mobile app technology developers for clients who may have a good idea of a mobile app. Whether they have a commercial value or not, the campus will loose an important service to the community that it serves.

Cost: $$ (One time or recurring)

Total budget requested = $ 108,160   Salaries of 8 interns for fall, winter, spring and summer: 52 wks x 20 hrs/wk x $13/hr x 8 interns = $ 108,160

What are your intended Process Outcomes and/or Student Learning Outcomes?

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Process Outcomes. o   The software engineering class (CSE 455) is the source of incoming interns of the MAD team. When an intern graduates from their degree programs, they are no longer eligible to work in the MAD team. o   CSUSB can provide a resource whereby individual clients who have mobile app ideas can be developed for free.   Student Learning Outcomes. Students who took the Boot Camps will have introductory knowledge on Android and iOS mobile development. It will be sufficient that they will be able to develop simple mobile apps.   The students in the software engineering course, CSE 455, will benefit tremendously from the MAD team. Through the guidance of the MAD team, the class get's a crash course in mobile development tools, languages, and systems.   The Entrepreneur Concentration, CBPA, will have a valuable resource for realizing their business projects through the creation of mobile apps. Steve Abbott in his letter of support, Appendix B, without the support of the MAD team, these ideas, will just remain as ideas.   Economic Outcome. A side-effect of this proposal is economic outcome. It could lead to the evolution of an incubated Mobile Application Development (MAD) Software Company at CSUSB. The CaseAide app will be offered for sale for the first time to individual social workers next month, April. See Letter of Support in Appendix C.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

KPI 1: Count the number of new mobile apps developed in 2018. Currently developed or being developed mobile apps, both for campus use and commercial apps, are found in https://www.csusb.edu/mobile-apps The following mobile apps and clients are being prototyped in CSE 455 winter 2018 and could be continued starting spring 2018: 1.   AlgorithmA (educational app for learning algorithms and programming) 2.   CircuitSnap (educational app for circuit analysis) 3.   Congenital Heart Disorder (app for care givers of CHD patients) 4.   CoyoteQuest (app for locating rooms/offices in the campus of CSUSB) 5.   Library Space (app for measuring occupancy of study spaces at Pfau Library) 6.   MBA Passport (app for the MBA Program, CBPA) 7.   SOS (app for first responders of emergency situations) 8.   Umvelt (app from IECE Entrepreneur Program, CBPA) 9.   EZPark (app from IECE Entrepreneur Program, CBPA) 10.   Galaxy Conquest (mobile game) KP2: For student learning outcomes, we will conduct a survey about the use of mobile app projects in the lab. The results will be analyzed if the students learn from the development of mobile apps and find if the skills they have acquired are useful. KP3: We will report on the number of students in CSUSB being influenced by the MAD Team and the mobile app projects that the MAD Team is developing. We will count the number of students who attended the mobile app development boot camp. We hope these students continue to learn and develop their own ideas of a mobile app. Currently, the students in CSE 455 (Software Engineering) are directly influenced by this proposal with over 100 students in computer science & engineering. CSE 455 is offered twice a year, one in winter and one in spring. The courses SW 400 (Social Work Practice) and SW 401 (Field Work) have about 15-30 students in social work each quarter term and are using a mobile app, CaseAide, developed by the MAD team. Art students in the course ART 575 (Internship) is providing experience to students in the field of UI/UX design, an important component of any mobile app design. They participate in CSE 455 in helping the student teams create UI/UX for their apps. Finally, students in the Entrepreneur Concentration, CBPA, will benefit from the MAD team by developing their business ideas in mobile apps and realizing the commercialization of their ideas, see Letter of Support from Steve Abbott, Appendix B.

Project Timeline   **Start:**   7/2/2018 12:00:00AM   **End:**   6/30/2019 12:00:00AM   **First Quarter of Student Use**   Summer 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-508ce686c3ea942dc255dd151fae922a_AyerMiller_Letter.docx

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-1132b480a025f0f3148055d62684aa50_MichaelEdwards_Letter.docx

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/235-4f85295a48784ebfe797b04bdd6286cc_VETI_budget_2018.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

118

Division	Academic Affairs	College of Education		5427639
	Campus Division	**Priyanka**	**Yalamanchili**	priyanka.yalamanchili@csusb.edu 909-537-5670

Total Amount Requested for FY 2017 $66,808.94

Project Title: DisABILITY Sports Adapted Technology Initiative

Project Abstract:

Persons with disabilities make up approximately 19% of the population. If applied to the CSUSB student population that equals approximately 3,945.73 students currently struggling with some form of disability. Persons with disabilities also make up the most underrepresented minority population nationwide and on campus. Groundbreaking immersive technology such as Virtual Reality (VR), 360 video, assistive/accessible apps, Augmented Reality, RFID tracking and adapted technology based sports equipment, are giving the disabled community new and innovative ways to try out of reach experiences, plan accessible routes, develop and practice social skills, decrease anxiety, improve motor skills and increase health, wellness and safety. This in turn leads to a boost of confidence, increased mobility and health, a sense of inclusiveness, the ability to self-advocate for adapted safety/emergency plans thereby leading to an improved quality of life. Currently adapted and assistive immersive technology for VR, 360 video and the other mentioned technologies are not present on any of the CSU campuses. Through the funds of this grant and in collaboration with ATI, CSUSB MAD student team, Coyote Advertising and Dive Warriors, CSUSB will be on the forefront of every other campus in the CSU system and for that matter the majority of universities across the nation to create and provide assistive and adapted immersive technology to students with a disability.

Challenge(s) this project will address:

The CSUSB campus lacks assistive and immersive technology and technological adaptive equipment for students with disabilities. • 	Students with a disability, particularly Autism, experience extreme anxiety when coming to 	a new environment, building or classroom. • 	Students with a disability who require accessible routes cannot prepare or practice 	navigation of needed routes. 	o 	This can lead to injury, anxiety and problems with student well-being and retention. • 	CSUSB does not have a virtual environment for students to prepare for accessible routes or 	new environments to accommodate students with disabilities. • 	The Coyote Quest App currently in production by the MAD student team does not have 	accessible routes as an option to navigate campus. • 	Adaptive sports equipment that requires technology to be fully assistive is not readily 	available for students with disabilities. • 	Adaptive sports equipment and wheelchairs previously purchased have repeatedly been stolen during an event or from the storage rooms on campus. • 	Students with disabilities are not prepared for emergency evacuations or lock downs. • 	The able-bodied student population is not being educated on the equity gap between able- 	bodied evacuation and emergency plans in contrast to persons of disabilities. • 	During large events, students with disabilities and disabled community participants can get 	confused and wander off or get lost. • 	Students with disabilities suffer from low self-esteem and do not realize what their bodies 	are truly capable of. • 	Students with disabilities lack the confidence to exercise or try a new sport, which results in 	loss of mobility and health issues. • 	CSUSB currently lacks the right equipment and technology to create adapted and assistive 	VR and 360-degree videos. • 	There are not enough students employed as student assistants who can code in unity to 	create VR.

Alternate solution(s) should this project not be funded:

  • 	Create 2D video with phone camera to produce campus videos. • 	Use existing Coyote Quest APP once created without the accessible features. • 	Hold workshop on self-advocacy and emergency plans without the impact of VR examples. • 	Find existing video of athletes who have overcome in 2D to show at event and upcoming 	health and wellness workshop

Impact(s) if this project is not funded:

  • 	Possible extreme anxiety will occur in students with disabilities who have to enter a new 	building, classroom or area of campus without preparation. • 	Possible injury to students with disabilities as they try to navigate campus without 	practicing or knowing accessible routes. • 	Probable increase of student dropout rate due to feelings of frustration and lack of inclusion 	in all aspects of student life. • 	Students with disabilities who cannot participate fully in a sport they would like to 	experience or play in. • 	Danger and possible injury to students with disabilities who do not have an adapted 	evacuation plan. • 	Without proper education, the minority equity gap that currently exists between able- 	bodied students and our students with disabilities will not be bridged. • 	Virtual reality for the students with disabilities that highlight how they can go anywhere 	and do anything will not be created. • 	Less students on campus will have the opportunity to code, film and design, forfeiting the 	opportunity to gain job ready skills that typically increases student retention and 	graduation rates.

Cost: $$ (One time or recurring)

Item/Cost Description	Total Cost	One time or Recurring
CSUSB Interns (MAD)	$27,040.00	Recurring Annually
COE Student Assistant to help design APP	$5,500.00	Recurring Annually
VR Unity Coding Students	$20,000.00	Recurring
Student Videography	$2,000.00	Recurring
Equipment DHL 3D Glasses, VR Cardboard Glasses	$1,002.54	Recurring Annually
Samsung Galaxy J7 Unlocked	$810.00	Recurring
Apple Iphone 6S Unlocked	$693.00	Recurring
Insta360 One	$269.10	Recurring
Insta360 Pro	$3,149.10	One time
Insta360 Waterproof Housing	$44.10	Recurring
Insta360 Tripod	$6.30	Recurring
Audible Beep Soccer Ball	$99.80	Recurring
Beep Baseballs	$140.00	Recurring
Beep Baseball chargers	$45.00	Recurring
Beep Basball Bases	$300.00	Recurring
Fencing Light Sabers	$3,450.00	Recurring
GPS Tracking Devices for wheelchairs and accessible Equipment	$1,500.00	Recurring Annually
RFID Bracelets	$760.00	Recurring Annually
	$66,808.94	

What are your intended Process Outcomes and/or Student Learning Outcomes?

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Outcome1-Creation of accessible 360 videos of campus increasing student well-being and fostering sense of belonging. Outcome1.1-students w/disabilities experience anxiety visiting somewhere new. 360-reduces anxiety with virtual location. -Student/outcome-reduced anxiety-increasing social integration and improving quality of life, sense of well-being. Outcome1.2-360 provides accessible viewing routes before attempting. -Student/outcome-sense of accomplishment, foster strong sense of belonging. Outcome1.3-Upgrade existing Coyote Quest/App to include assistive technology for routes in and around campus. -Student/outcome-student employment-accessibility of campus on mobile devices. Outcome2-Procurement/security of new adaptive sports equipment that requires technology. Outcome2.1-Procure tech-based adaptive sports equipment. -Student/outcome inclusiveness to participate in any sport. Outcome2.2-GPS asset trackers for adaptive equipment. -Student/outcome ability use equipment. Outcome3-Increase student-safety-eliminate student equity gaps for underrepresented/disabled minority group on campus. Outcome3.1-create enhanced/VR of accessible emergency plan and another on what could happen if a plan is not in place. -Student/outcomes-able-bodied students learn and understand how different/difficult evacuation for student w/disability and equity gap. Students w/disabilities learn to be self-advocates and learn to plan ahead including needed assistance from able-bodied student/faculty and routes to evacuate/stay in lock-down without injury/harm. Outcome3.2-Procurement of RFID/paper-bracelets. -Student/Outcome-safety for students/participants who may become confused/wander off - alleviates stress/worry and creates peace-of-mind for large student volunteer population that helps run festival in case a student/participant goes missing. Outcome4-Creation of VR and immersive experiences Outcome4.1-Creation of immersive/VR experiences from exciting adaptive sport Outcome4.2-Procurement of Insta360 equipment Outcome4.3-Creating student employment Outcome4.4-Creating student employment to film and design. -Student/outcome-4.1-4.4-inspire students w/disabilities to try new experiences, create self-esteem health/mobility, provide student employment.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1.1 Create 24 accessible and adapted 360-degree videos of areas on campus with accessible routes to campus areas, classrooms and buildings 1.2a Upgrade of Coyote Quest Map to include assistive technology for the COE DisABILITY Sports Festival, which will include a campus map with the location of activities, including activities occurring inside buildings involved in the celebration with accessible routes and will then be available to all students on campus who need accessible routes. 1.2b (4) students employed to design and code upgrade of app. 1.3 Creation of multiple augmented reality images available on Mobile phones and iPad 2.1 Purchase of new adapted equipment including Audible Beep Soccer Ball -4 Beep Baseballs- 4 Beep Baseball charger-1 Beep Baseball Bases –set of 1 Fencing Light Sabers -30 2.2 Purchase of GPS asset trackers – 50 3.1 (2) VR videos on creating an adapted emergency plan and what happens when there is not one in place. 3.2 Purchase of RFID bracelets- 1000 4.1 (3) VR adapted sporting experiences with immersive technology 4.2 a Cardboard to view experiences on mobile devices 4.2 b (3) iPhones and (3) android phones for students to view the VR experience that may not have a mobile device or one capable enough to run the software. 4.3 Student Assistants employed to code in unity 4.4 Student Assistants employed to film and design VR experiences 5 One of the first campuses in the CSU system and universities across the nation to create and provide assistive and adapted immersive technology to students with a disability.

Project Timeline   **Start:** 7/2/2018 12:00:00AM   **End:** 6/28/2019 12:00:00AM   **First Quarter of Student Use**   Summer 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-197dafdc72cecc14f7402da035d82428_Letter_of_Support_-ATI.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-f8e55fcf7871b7ece194e3eb1b0558fa_Letter_of_Support-Coyote_Ad.pdf

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Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-39212658a50b174570a9a6966fdaba4c_VETI_BUDGET_COE_DisABILITY_Sports_Festival.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

120

Division	Academic Affairs	College of Arts and Letters		5790014
	Campus Division	**Mariam**	**Betlemidze**	mariam.betlemidze@csusb.edu 801-505-2460

Total Amount Requested for FY 2017 $42,769.47

Project Title: Digital Storytelling Lab for Student Journalism & Multimedia Production

Project Abstract:

With the added cutting-edge multimedia capacity, this project will transform Coyote Chronicle existing print newsroom (UH037) into a digital storytelling lab in which faculty, staff, and students from soft and hard science disciplines will engage in immersive storytelling practices to reach their audiences in new and unexpected ways. Independent student perspectives on campus and community trends will guide their storytelling practices fostering the culture of belonging, engagement and success. Students will learn new ways of telling audio, photo, video, 360Â° video and other multimedia stories using state of the art equipment on and off campus. The lab will be open to any and all students from various colleges and both campuses who would be interested in sharing their story on Coyote Chronicle website. They will be able to check out the equipment, including Mac Book Pro laptops and book editing stations as well as get guidance from student editors employed in the lab. Therefore, all students will develop from the cutting-edge digital storytelling skills by being engaged in immersive media production experiences that are instructionally effective and inclusive of all SB and PDC students. There are several students who produce stories for Coyote Chronicle currently, with this grant these students and their peers will be able to take laptops, cameras and other recording devices with them as they work on their stories in the field or on Palm Desert Campus.

Challenge(s) this project will address:

We have a very outdated digital storytelling lab in the Chronicle newsroom and limited access to the larger computer lab (UH-043) with Adobe Creative Suite. The versions of Software programs on those computers are tuned to specific classes and textbooks, which do not allow certain video editing, such as 360Â° video and VR extensions. Moreover, Students cannot access it during other classes, in the evenings and during weekends. For immersive, digital storytelling, we have been collaborating with ATIâ€™s VR initiative and would love to utilize the technology more actively. Creation of this lab will lead to the betterment of overall educational experiences, increased student motivation for learning via storytelling, boosted collaboration, and creativity as well as engagement with the campus and community. The lab will contribute to the 2025 graduation initiative by accelerating innovation through collaboration, fostering a culture of student success and belonging by encouraging them to participate in various academic and creative contests. The lab will also provide more campus employment for students and expand a widespread culture of high impact practices, which include a projects-based learning, undergraduate research, and service learning.

Alternate solution(s) should this project not be funded:

Limited multimedia storytelling experiences may be implemented through collaborations with ATI and other campus organizations or grants. We could purchase and borrow equipment on campus, but this will not allow extension of collaborations across disciplines and campuses. This will also drain departmental and college resources that could be more helpful in funding opportunities not available via VETI grant. It will take much longer to produce much less effective stories and with a less technological sophistication that may no longer be fitting to the current marketplace standards.

Impact(s) if this project is not funded:

Hundreds of students produce media in various classes across the disciplines every quarter. All of them would be devoid of opportunity to have their voice heard via new storytelling experiences. Without the ability to work in a collaborative environment, students will not get the jobs that they want nor will they have the skills that employers are seeking.

Cost: $$ (One time or recurring)

The cost of the project exceeds the requested amount and includes at $20,000 per year for student assistants and other expenses for expanding and maintaining technology. IRA funding for Coyote Chronicle and other grants such as LA Times donation will be utilized to develop this project further.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Students will utilize state-of-the-art storytelling technologies to advance their skills and develop competencies in multimedia production and journalism while increasing creativity and forming interdisciplinary collaborations.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Student media story stories will serve as key performance indicators. If found helpful, student surveys will be provided to measure the deliverables.

Project Timeline   **Start:** 9/17/2018 12:00:00AM   **End:** 5/31/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2019

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-5e05fff77394c7189ffce825b93337a2_Letter_of_support_from_Dr._Mihaela_Popescu.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-85386c0dcafa56c7d48b9ea81f4f0aeb_VETI_PURCHASE_REQUEST_FORM_2017_2.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

121

Division		Academic Affairs	College of Natural Sciences		5792952
		Campus Division	**Cheryl**	**Brandt**	cheryl.brandt@csusb.edu	909-537-7238

Total Amount Requested for FY 2017   **$78,124.00**

Project Title: Integration of Web-Based Virtual Clinical Reality (VCR) Learning Experiences in Undergraduate Nursing and Kinesiology Courses

Project Abstract:

Virtual reality simulation not only captures the attention of the video-game generation but actively engages students in the learning process. Shadow Health® and vSim® (Laerdal) products will support improvement in nursing and kinesiology students' health history-taking and physical assessment skills, and strengthen nursing students' clinical reasoning skills, through use of virtual clinical reality (VCR) learning experiences incorporated into nursing and kinesiology courses. During each VCR scenario the students care for the patient/client by assessing the situation and implementing therapeutic professional communication, assessment techniques and interventions using critical thinking and clinical reasoning. Examining the effectiveness of virtual reality learning products in helping students learn patient care and communication will give information about how the VCR products can provide enhanced training for students using technology to promote active and engaged learning. At the undergraduate level, patient simulation using VCR technology can increase the completion rates of healthcare education programs by helping students master new knowledge and meet learning outcomes through hands-on exercises that illustrate and reinforce the concepts and skills learned in theory courses. The ultimate aim is to strengthen student success in their programs and preparation for their careers. In support of that aim, the project team will work closely with Shadow Health and Laerdal customer support staff, as well as the CSUSB Academic Technologies and Innovation (ATI) team, to insure that students and faculty are well-prepared to implement use of these products.

Challenge(s) this project will address:

Students' clinical/practice experiences in hospitals and other health care agencies, while still the cornerstone of undergraduate nursing and health education, are by their very nature unstructured. Students take care of patients/clients that are available, and students' care experiences unfold in a highly fluid environment in which not all students can be guaranteed many specific clinical/practice experiences. Web-based VCR experiences, assigned to students and reviewed by faculty, provide guaranteed highly structured virtual clinical experiences using standardized patient scenarios that: • insure all students have, virtually, selected key patient/client care experiences. • give students the opportunity to practice clinical/professional skills including important "soft skills" such as therapeutic communication between health professionals and patients. • allow faculty to track students' skill performance and clinical reasoning in each scenario, and • enable faculty to give specific feedback on each student's skill performance and clinical reasoning throughout the scenario.

Alternate solution(s) should this project not be funded:

We could simply start requiring students to purchase these products for use in courses, based on the experience of other faculty in other programs. However, in that case CSUSB students and faculty would not have had the opportunity to trial the products and measure their impact on student learning in CSUSB courses.

Impact(s) if this project is not funded:

The students would miss the opportunity to participate in the trial of simulated learning environments using leading-edge technology. Having students use the products and give feedback on their usefulness and effectiveness is a valuable preliminary step to requiring students to purchase the products and use them in their classes.

Cost: $$ (One time or recurring)

$78,124.00 One-time expenditure, for purchase of the virtual clinical reality (VCR) product licenses and for hardware to support student use. The project team is requesting funding through VETI for the entire cost of the project.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Undergraduate student learning outcomes: Undergraduate nursing and kinesiology students will: 1. improve their health history, physical assessment, and professional communication skills, specifically their ability to interview patients to obtain subjective data, select appropriate physical assessment skills, organize the sequence of the history and physical examination, and document findings. Undergraduate nursing students will: 2. improve their clinical reasoning skill with acutely-ill adult patients, specifically their ability to assess patients experiencing a change in status, determine an appropriate plan of action, implement the plan, evaluate patient outcomes, and document the patient situation.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Performance indicators for the two learning outcomes will be course-embedded, either skill competency validations (psychomotor and communication skills) in campus laboratory practice or performance on planning nursing care using a published patient case study. 1. How did student participants' critical thinking and clinical reasoning skills, as measured by performance in clinical laboratory physical assessment competency validations, change after using the Shadow Health® Health Assessment module in nursing and kinesiology courses? 2. How did student participants' clinical reasoning skill, as measured by the depth and quality of analysis of a published patient case study with the Lasater Clinical Judgment Rubric as the scoring rubric, change after using vSim® (Laerdal) Medical-Surgical and Gerontology modules?

Project Timeline   **Start:** 7/1/2018 12:00:00AM   **End:** 6/30/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-f11b7b0394ad785b0f63a7520d053a4c_Statements_of_Support-VETI_Grant-Dean_and_Chairs.docx

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-50e15eca3e5011dde0a2ceb2412eaeff_2018_3.16_VETI_BUDGET_REQUEST.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

122

4517798

Division	Student Affairs				
	Campus Division Associated Stud	**Vincent**	**Nestler**	vnestler@csusb.edu	917-304-4696

Total Amount Requested for FY 2017 — $27,250.00

Project Title: Campus Communications and Emergency Preparedness Project (CCEPP)

Project Abstract:

If you have not noticed we are living in interesting times. And we are in an interesting location. In the past few years, San Bernardino has been the location of a terror attack and natural disasters such as wild fires. CSUSB itself sits just feet away from the San Andreas Fault which is said to be overdue for rupturing. Earlier this quarter the campus has a "shelter in place" even that tested and strained our communications capability. One of the main areas of the 2025 Graduation Initiative is Student Engagement and Well Being which this project is primarily aimed at. CCEPP will improve the current communication capability of the campus serve the campus staff and students both in normal and crisis times. During normal times, students can use hand held devices (radios or apps on smart phones) to communicate with other campuses within a 50 mile radius, or world wide digitally. During times of crisis, staff will be able to communicate with each other and with campus police, the recreation center and the building marshals to help ensure the safety and most effective actions. CCEPP will work closely with the Office of Emergency Management and Business Continuity as well as Campus PD to train students and the campus on communicating during an emergency. An Emergency Situation game will also be developed to simulate some of the needs and requirements during emergencies and be the basis for conducting research and data to drive decisions on how to improve future communications.

Challenge(s) this project will address:

Student Engagement and Well Being The CCEPP supports communications during quiet times and crisis. CCEPP can support events on campus such as the Color Run and the California Shake Out. During times of crisis the gear and infrastructure can prove vital in saving lives and recovering disaster. The CCEPP works with both the Campus Office of Emergency Management and the San Bernardino County Office of Emergency Management. It will also work with campus police, academic computing and business intelligence, ham radio club, the various community amateur radio club in Redlands, Riverside and other surrounding areas. Palm Desert The CCEPP will establish another means of communicating with the Palm Desert Campus to support events and in emergency situations. Classes on using communications will be offered online and will be made available to PDC as well. Student Education The game generates a scenario for three (or more) locations and creates conditions where players are put in role as a person (post disaster) has a resource, has a need, is looking for someone (lost in the disaster) and someone is looking for them. The objective of the game is to get all resources to those that need it, and to get all people looking for each other to unite. The only communication allowed is with what can be expected to be available during a grid down situation. The concept of the game has been shared with several persons involved in emergency communications and they are very interested in its development. Enhance Instructional Technology While not specifically a typical instructional technology, the infrastructure and training can be used for communication during outings, collaboration with other researchers at different locations and communicating with the Palm Desert Campus. Across Institution The CCEPP can benefit all students indirectly. It also will be available to all students interested in communications to learn about radio and emergency communications. Student Experience and Success The infrastructure that will be in place will, in part, be use for conducting research for the Emergency Communication game that has potential if successful to be used more widely for training people in emergency communications. Students can gain valuable experience in conducting research, learning about radio communications as well as emergency communications. High Utilization Rate The equipment requested is a one time purchase and will serve the campus and surrounding community for years to come. The student worker will be part of an outreach effort to get students on campus interested and educated. Special needs students Radio communications have been especially useful for connecting students with special needs. Students with visual and mobility challenges particularly benefit from community based radio communications but especially during times of emergency. Enhanced training for students use of technology A Mesh Network utilizing amateur radio frequencies is a new technology that is being used increasingly across the country. The mesh network that will be developed in part by this grant can give students training and instruction on how a mesh network works, how the technology is implemented and how it is used in a grid down situation. Cost/Return on Investment There are a number of benefits for the investment in CCEPP. Improved communications between the different communications networks on campus benefits students and staff during events and disasters. The Emergency Communications game has potential to be a product, though no plans to commercialize it currently exists. The intent is to get the game out there for people to use and learn from. Ability to Implement The ability to implement is strong considering the support for this project from the Campus Office of Emergency Services in conjunction with Campus Police Department. We also have support from community members, and the San Bernardino County Office of Emergency Management. Letters of support are attached.

Alternate solution(s) should this project not be funded:

We can continue to use the current infrastructure as is and try to develop new strategies.

Impact(s) if this project is not funded:

Our communications will not be as good as it could be during events and disasters.

Cost: $$ (One time or recurring)

27,250.00 No recurring costs.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes 1 - Establish interpretational communications 2 - Support campus activities when radio communications can be helpful such as the Annual Color Run or Homecoming. Student Learning Outcomes 3 - Emergency communication game development and implementation 4 - Educate students on how to communicate with radios 5 - Educate students on how to communicate during emergencies

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1 - Conduct testing exercises with the various communications systems on campus - CPD, Rec Center, Office of Emergency Services 2 - Conduct survey of event organizers measuring use and value of the support communications provided by equipment in this grant. 3 - Provide results from the Emergency Communication Game that will be tested on campus and potentially during the California Shake Out. 4 - Administer survey for workshops taught on communicating with radios 5 - Administer survey for workshops taught on communicating during emergencies

Project Timeline   **Start:** 10/1/2018 12:00:00AM   **End:** 6/28/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-b4d1eabc01cbc32da939d07209a7236a_RichMcgee.docx

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-ba541f8c197310c43e9534f45ef7022c_Memo_Radios_3_16_18.docx

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-336feae68cdfd369e5b2228df3a20911_VETI_BUDGET_CCEPP.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

124

Division		College of Natural Sciences			77050
	Academic Affairs				
	Campus Division	**Paul**	**Orwin**	porwin@csusb.edu	(909) 537-5405

Total Amount Requested for FY 2017   **$66,000.00**

Project Title: DNA Sequencing Tools for Hands-On Genomics Education

Project Abstract:

Advancements in genomics technology have changed the biomedical workplace and the nature of higher education in medicine, biology, and biotechnology. DNA sequencing costs have dropped to the point where $1000 human genomes are feasible, and sequencing microbes is routine in many settings, including at the hospital point of care. Sequencing equipment costs have dropped sufficiently to make hands on sequencing experiences accessible for undergraduates. We will integrate cutting edge sequencing by acquiring of two types of instruments, the ISeq 100 and the Nanopore MinIon, along with a high-performance computer for processing the level of data generated by these instruments. The ISeq instrument uses extremely sensitive optics and a computational algorithm to provide approximately 1.2 Gb (gigabases) of DNA sequence per flow-cell from a DNA sample.   The Nanopore approach uses longer fragments of DNA which are measured electrochemically as they pass through a "nanopore" in a membrane, resulting in 2-6 Gb of DNA sequence per flow-cell. It is worth noting that this means our students could conceivably sequence their own genomes! These complementary strategies and the subsequent bioinformatic analysis will allow students to go from sample acquisition to interpretation of results in an integrated workflow that can lead to publications. Other universities have begun implementing this hands-on sequencing approach, leading to undergraduates successfully sequencing microbial isolates and publishing the results. This plan will allow our students to have a "real-world" laboratory experience using state-of-the-art equipment, giving them an advantage in the job market or in competing for professional/graduate school.

Challenge(s) this project will address:

The field of biology has been revolutionized by the introduction of very inexpensive DNA sequencing, and any student emerging with a degree in this subject must be well versed in the terminology, mechanisms, and interpretation of this data. Our students will be able to spend time getting hands on experience with cutting edge equipment, giving them an advantage as they enter the workforce or professional/graduate school.

Alternate solution(s) should this project not be funded:

Some of these tools (Nanopore MinIon) can be acquired piecemeal using small teaching oriented grants, but the larger pieces (the iSEQ, the server for bioinformatics) will only be purchased if we can successfully pursue outside funding for this installation.

Impact(s) if this project is not funded:

Lacking access to DNA sequencing technology will mean that our students are less familiar with the most recent advances in the field. CSUSB Biology students are frequently competitive for jobs and advanced graduate education based on their laboratory experiences. As these sequencing techniques become routine, bioinformatics skills will become prerequisites for jobs, graduate work, and professional biomedical degrees. Experiences using cutting-edge DNA sequencing technology and data analysis will be invaluable in maintaining our students' competitive advantage in this area.

Cost: $$ (One time or recurring)

$66000 one time cost. There are no personnel costs. Upkeep costs are minimal, and the equipment packages come with materials for at least 2 years of use, as well as a service contract that is included with the ISeq. After that period the reagent costs are projected to be about $1500 per year, although in general sequencing costs have fallen consistently over time, so we expect the real number to be much smaller.

What are your intended Process Outcomes and/or Student Learning Outcomes?

The addition of Genomics technology to our curriculum, in particular the ability to carry out genome and environmental sequencing experiments from sampling to analysis, will make upper division Molecular Biology related courses much more impactful. We expect this will draw biotechnology oriented students into the upper division Genomics classes. Students will get initial exposure to these technologies in Microbiology (Biol320) and Molecular Biology (Biol400). They will have the opportunities to engage in them more fully in Microbial Genomics (currently a special topics class) or senior seminar. The SLOs for the relevant classes will contain statements such as the following: 1. Students will learn the underlying theory of single molecule and/or high throughput DNA sequencing. 2. Students will prepare, run, and analyze samples using single molecule and/or high throughput DNA sequencing. 3. Students will learn how to analyze the output of single molecule and/or high throughput DNA sequencing.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1. Knowledge of the theory underlying single molecule and high throughput DNA sequencing will be assessed during the lab practical of the releveant course. 2. Student knowledge of the procedures for using this equipment will be assessed in a survey to be administered to graduating students and recent alumni to determine if exposure to these techniques was impactful. 3. Analysis of the data will be evaluated by examination of the student lab reports, and potential publications of genomic data.

Project Timeline   **Start:** 9/20/2018 12:00:00AM   **End:** 6/22/2021 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-31e696d1e5cbf02ec6f514bde77d19b4_VETIsupportletter_Orwin_Nickerson2018.doc

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-0f6ce3f67cfacf311d026234fe8a5177_AMSAs_Letter_-_Genomics.docx

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-2

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-3d26e66dd0d5d70134d5124f9d8e0764_VETI_BUDGET_ORWIN.xls

Division	Academic Affairs	College of Natural Sciences		5788948
	Campus Division	**Yunfei**	**Hou**	hou@csusb.edu	(909) 537-3608

Total Amount Requested for FY 2017 $84,622.40

Project Title: Computer Science and Engineering Laboratory for Student Research

Project Abstract:

At the school of Computer Science and Engineering (CSE), we plan to remodel our student research lab which was built in 1993 and is not remodeled for more than 15 years. The lab is designed for students and faculties to work together on research projects such as Artificial Intelligent, Internet of Things, Big Data, Machine Learning, Cyber Physical Systems, and Game Development. In an effort to make the lab more accessible to students, it will be managed by a student organization, i.e. the CSE club after remodeling. Funding from this grant will be used toward purchasing equipment and software for the lab, and the school of CSE will provide additional funding for room remodeling, such as room repainting, furniture change, and electrical wire layout and some lab supplies.   The student research lab is located at JB 361, with a capacity of 28 people. The proposed floor plan is attached. We believe the CSE club, along with their faculty advisors, will be more than capable of managing the lab. The CSE club has a long history of promoting student outreach, education and research programs at CSUSB. The club is recognized by both ACM and IEEE (the top two professional organizations in computing), and was awarded for IEEE Region 6 Outstanding Small Student Branch in 2017.

Challenge(s) this project will address:

The proposed project on building a Computer Science and Engineering Laboratory for Student Research will address the following four challenges: 1. Encourage student research Encouraging student research is known as a HIP (High Impact Practice) for promoting student engagement and leading to successful learning. With this in mind, we also take this opportunity to rethink how a computer research lab should function for students. After discussion with our students and faculty members, the proposed lab is designed with the following requirements: 1) multi-use space for both team work and individual work, 2) drop-in use whenever lab is not closed for meetings, 3) provide large monitors and connectors/adaptors for student device access, group discussions and presentations, 4) provide space for the CSE club and other student associations to hold workshops, and 5) provide professional software and hardware environment for extracurricular activities. 2. Improve students retention and graduation rate "Student Engagement and fostering a strong sense of belongingness on campus" is identified as an important element in the roadmap to success in CSU GI 2025. According to the 2018 CSUSB Statistical Factbook, the CSE enrollment has dramatically increased from about 600 students to more than 1000 in the last five years. However, our lab space did not increase at the same scale. With the limited open lab hours available in CSE instructional labs, the student research lab will play more important role to foster a strong sense of belongingness to the campus, especially having CSE student club managing the lab. Numerous studies show that student participation in research will greatly improve their engagement and success, which is also the goal of GI 2025.   3. Keep up with new technologies in computer science In this project, we not only plan to keep pace with current technology, but also want to stay relevant with emerging ones. The lab is designed to provide the infrastructure for enhanced student training, as well as makes the students more marketable and productive for the workforce. To this end, the proposal includes a purchase list of hardware and software to support research and study in a wide range of areas in computer science. Given the expertise of faculties in CSE, we identified the following key topics for the lab: Mobile Application Development, Virtual Reality, Game Design, Internet of Things, Artificial Intelligent, Big Data, Cyber Physical Systems, Machine Learning and Robotics. 4. Support CSE student club and organization Historically the CSE student club has been using a small office near the new lab location for meetings, socializing and lounging. With student-led management, we hope the student research lab will continue to provide a place for cohort-building activities for our students. This is also inline with the VETI requirement on supporting a high utilization rate for student constituent groups. Additional, with the new lab, we hope to integrate research resources across our campus, and to promote interdisciplinary activities.

Alternate solution(s) should this project not be funded:

Should this project not be funded, funding for a smaller number of equipment will be requested through the school of Computer Science and Engineering, and the College of Natural Sciences. However, it unlikely to obtain enough equipment for the lab to be fully functional, which will limit its impact to our students.

Impact(s) if this project is not funded:

If this project is not funded, many of the planned student outreach, collaboration and research activities will be restricted. It will be less likely that our students can keep up with new technologies because of the necessary resources will not be available.

Cost: $$ (One time or recurring)

One time, $84,622.40

What are your intended Process Outcomes and/or Student Learning Outcomes?

1. As a process outcome, the proposed research lab will increase student use of lab resource for study and research. 2. As a learning outcome, the proposed research lab will help student to develop problem solving skills with project-based learning and research.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1. To access Outcome 1 above, survey of students using the research lab will be conducted. We will collect feedback from students on how the new research lab benefits their study and research. 2. To access Outcome 2 above, students using the research lab will be asked to submit a report on their project. The report will describe what project has been conducted, how lab resource is utilized, and what are the project results.

Project Timeline   **Start:** 7/2/2018 12:00:00AM   **End:** 12/31/2018 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-3cada386e26a7c3f28730f0f36bdce14_cse_club_VETI_support_letter.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-3e31987909149bbfa2ab2116598025ea_CSE_chair_support_letter.PDF

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-49a28b67eb8a892cbdec2e8ae28431a0_VETI_BUDGET_CSE_Lab_2018.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

127

| **Division** | Information Technology Services | | | | 5654 |
| | Campus Division | **Kurt** | **Collins** | kcollins@csusb.edu | 909 537 5893 |

Total Amount Requested for FY 2017 $52,100.00

Project Title: UAV Photogrammetry and VR Scene Creation

Project Abstract:

Photogrammetry is the science of making measurements from photographs. The output of photogrammetry is typically a map, a drawing or a 3D model of some real-world object or land mass. These tools will be used to create 3D maps and models for use in Virtual Reality (VR) and Augmented Reality(AR) projects undertaken by ATI on behalf of programs throughout the campus. This tool will allow for students working with ATI, to gain experience related to their discipline in the expanding field of VR/AR. VR/AR Works with 3D models to mimic a real or create an imaginary space. Creating 3D spaces using aerial photogrammetry will save hundreds of hours modelling environments. Additionally, this UAV will be useful for a large number of programs across campus providing high-resolution surveys of nearly any landscape a researcher my care to explore.

Challenge(s) this project will address:

At the current time it is very difficult to create realistic high resolution maps for gaming . It is also impossible to get a high resolution image for land survey purposes.

Alternate solution(s) should this project not be funded:

Satellite maps are available but lack the needed resolution, those can continue to be used but it will not be possible to use those maps for scene recreation (for VR use).

Impact(s) if this project is not funded:

 One of the newest learning initiative will have to wait, namely VR realistic scene recreation. This is a technique used in all major VR and game creation projects.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Learning outcomes will include: 1.   The ability for traditional 2D artists to move into the 3D world by leveraging existing knowledge of raster based two-dimensional imaging software applied to three-dimensional objects for the purpose gaining 3D models. 2.   UAV acquired high-resolution images, aerial photogrammetry is used to create topographical maps. Topographical maps are created so that both small and large geographical areas can be analyzed. Large areas such as fault zones, forests, lakes, mine sites, agricultural fields permit the study of areas at a much more precise level than can be achieved with aircraft or satellite created images. 3.   Aerial photogrammetry is most popular in architecture and land development. It is very time consuming and costly to examine a very large portion of land by foot, which is why overhead shots are obtained. The government will also use aerial photogrammetry for city planning. When environmental research is being performed, aerial photogrammetry may be used to examine watersheds and deforestation research. Students using these techniques are going to be versed in the latest technological tools available. 4.   Art, Design, Communications, Biology, Geology and Human Ecology are just a few of the disciplines that will be able to make direct use of this tool. 5.   Design, Computer Science and Engineering and Communications student are all directly involved in the process of making games, Virtual Reality simulations or maps that require large complex topographical maps .

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1.   Projects will be added in which students will need to create 3D environments only possible using advanced photogrammetry tools. 2.   Students in the Digital Motion Imaging course will use the tool to create virtual cityscapes. 3.   Collaboration between Communications and Design students creating large 3D environments for VR use. 4.   Collaboration between CSE and Design already exists for gaming applications, this will take the collaboration further most likely in the form of a special topics course.

Project Timeline   **Start:** 9/1/2018 12:00:00AM   **End:**   6/19/2020 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-7c1c3ca89314382ed59eb4b117a65dd4_VETI_BUDGET_TEMPLATE_UAV.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

128

| **Division** | Student Affairs | | | | 3366102 |
| | Campus Division Athletics | **Morgan** | **Walker** | mwalker@csusb.edu | (909) 537-5020 |

Total Amount Requested for FY 2017 $23,490.00

Project Title: Computers, Laptops, Printers, ID Card Readers, Hot Spots and Computer Hardware for the ATHLETICS STUDENT SUCCESS CENTER

Project Abstract:

Providing an environment that creates a positive student-athlete experience involves a competitive atmosphere both in the classroom and on the court or the field. Through technology, the Athletics Department can provide laptops and/or hot spots to 250 student-athletes to ensure academics are a top priority while on the road, dedicated computers to maintain academic success and progress toward degrees, and the technological infrastructure that will positively impact a student-athlete's educational career at CSUSB. It is a priority for CSUSB Athletics to assist student-athletes in maintaining their academic eligibility, course planning for timely graduations, advising sessions to select the degree program that best meet their needs, and implementing academic support strategies for academic and career success. By utilizing technology to assist in academic achievements of our student-athletes, we are providing the support required to have an effective learning environment impacting the overall student-athlete experience to have more engaged students, alumni and members of society. In addition, the Academic Success Center can be used as a showcase and revenue-generating space for the university events held in Coussoulis Arena, or the HPE building in general.

Challenge(s) this project will address:

1. Athletics currently does not have an Academic Success Center. The current space is categorized as a multipurpose room that can be used by any entity on or off campus (i.e. noon aerobics, CPR training, etc.). Athletics continually has to compete with these organizations when reserving the space for team or department meetings, academic study hall sessions, or life development workshops for student-athletes. The new CSU mandates of ensuring timely graduation and the campus priority of retaining our current students, the proposed usage of the space would meet the needs of our current and future student-athletes. Through the development of the Athletics Academic Success Center, CSUSB would be better equipped to support the academic and personal development of all student-athletes.   2. The current office for the Athletics Academic Advisor can only accommodate 1-2 student-athletes at a time. As a result, our Academic Advisor is restricted to conduct only one-on-one advising sessions for over 250 student-athletes, versus group advising, that could address general questions to improve academic support services for 15-20 student-athletes at a time. This project would add valuable time during regular business hours for our Academic Advisor to expand services for student-athletes that will directly impact their class planning, degree program selections, career services, and advising/counseling sessions.

Alternate solution(s) should this project not be funded:

1.   Should this project not be funded, we will continue to operate utilizing existing office space and resources. While we operate at maximum capacity and collaborate with other campus Academic Advisors to advise all 250 student-athletes, we limit the impact and engagement opportunities to execute authentic advising sessions. Although our collaborative efforts have benefited our student-athletes to graduate in a timely manner, our Athletics Department is committed to expanding services to ensure all student-athletes maintain a balanced academic schedule that elevates their overall well-being while adhering to NCAA rules to maintain athletic and academic eligibility. Student-athletes are held a higher academic standard than the average CSUSB student in which all student-athletes must be enrolled in at least 15 units per quarter and maintain a cumulative GPA of at least 2.5 or better.   2.   Athletics will attempt to secure other funding opportunities, including grants through the National Collegiate Athletic Association (NCAA), the California Collegiate Athletic Association (CCAA) and private grants to fund the technology aspects of this proposal to advance the academic success of our student-athletes. These funding sources may be unsuccessful due to increase competition from other institutions (I.e., University of Southern California) who have matching funds or personnel to fully execute a comprehensive grant application. In addition, the Athletics Department will coordinate with the Division of University Advancement to identify donor(s) that may support the technology advancement efforts, but since this project is specific, the likelihood of identifying a donor to give to this need is limited. Until the Athletics Department can identify a secured source of funding for this project, the department will need to develop a budget implementation plan over a number of years, pushing out the implementation date to at least 3 years.

Impact(s) if this project is not funded:

As GI 2025 quickly approaches, Athletics will align its academic goals and outcomes to meet expectations. Without funding for this project, Athletics will look for an implementation date for the GI 2025 students. CSUSB student-athletes are currently graduating at a 65% (2016 data) versus the student population at 55%. Athletics student-athletes must maintain their academic progress towards a degree to meet NCAA requirements for practice and competition (36 units per academic year towards their Bachelor's degree {approved classes} and a minimum 8 units per quarter). Not having a dedicated space for academics, the recruiting process for coaches becomes more challenging when speaking with parents regarding the department's academic support of their daughter or son. Overall, there is a risk Athletics will not be able to meet the performance benchmarks that GI 2025 outlines.

Cost: $$ (One time or recurring)
One-time $23,490.00

What are your intended Process Outcomes and/or Student Learning Outcomes?

1.1 Increased student use of tutoring and academic services 1.2 Increased student satisfaction with provided academic services 1.3 Students will use available and relevant campus resources to enhance academic and personal success to improve graduation rates.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1.1 Track attendance via sign-in sheet and certification by Study Hall Proctors and/or Academic Advisor. 1.2 Surveys sent to all student-athletes to rate satisfaction of academic services and exit surveys provided to graduating seniors on confidence and effectiveness of academic services. 1.3 Continue with annual graduation and retention reports provided to Institutional Research and the NCAA tracking academic and graduation success rates.

Project Timeline   **Start:** 7/2/2018 12:00:00AM   **End:** 9/19/2018 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-fb4bffabedf3b633dedab59140bd36ac_Letter_of_Support_Success_Center.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-f3c5370851ad462a462c2d5c3ec7b8b9_Approval_Haynes.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-eb178e12a7ebda2c92e055628583244a_VETI_BUDGET_TEMPLATE_Success_Center.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

129

Division	Academic Affairs	College of Arts and Letters		3465188
	Campus Division	**Kelly**	**Dortch**	dortchk@csusb.edu (909) 537-3865

Total Amount Requested for FY 2017 $30,000.00

Project Title: Technological Evolution of CE-114 Student Space

Project Abstract:

Reimagine student lounge to serve as a laboratory for transforming the lives of our students to best position them to return to our communities as models of inclusive, innovative, and integrative practices that will demonstrate deliberate applications of teaching, research, scholarship, and service. If we are to expand our student opportunities we must first open up our physical spaces to set the stage for open minds.   There is a cubicle in the center of our lounge with access for only four students. All data ports in the room run through the cubicle. We plan to remove the cubicle to open the space to allow all students – including our disabled students (wheelchairs, walkers, PTSD who cannot be in confined spaces) – the opportunity to work in groups. If we remove the cubicles we then need new data ports. We also want to open up the space and provide the related technology (wall monitors, computers, projectors, etc.) for student success that will allow students to hold club meetings, engage in course specific tutoring, and other educational and service pursuits. Also, research shows that we learn more when we teach and engage, we therefore plan to offer workshops and tutoring to community members (military, home-schooling networks, TK-12 students and families, artists and writers) so our students can gain professionalization, networking, and CV building opportunities. At present we have 4,500+ student visitors per year and 50+ community visitors. We could easily double/triple these numbers if we open the space and maximize technology access.

Challenge(s) this project will address:

Student Success and Graduation Initiative: By providing an intellectual space for all students that has the most advanced and accessible technology available we are facilitating technological equity for our students and ensuring their success both academically and professionally. We aim to remove the fear of technology that many of our students still possess because they are unfamiliar with the latest advancements. We want to prepare our students for the future and not have them using archaic technology of the past. We aim to instill a sense of community and service in our students by providing a supervised space to engage with each other, technology, and the community through community partnerships, workshops, tutoring, and access that allows our students to build their CVs, network, and professionalize their experiences in preparation for post-graduate employment and education. We aim for greater service learning and community engagement opportunities, using this student space as the platform, that will encourage our students to reinvest in the communities that have invested so richly in their lives and education.   We also need to open the space to provide greater access to our disabled students so that they can most fully integrate into the collective educational experience and have the same and equitable access to technology. Additionally, because of the location of our offices, many of the visitors to our space are Liberal Studies students. They have the charge to educate the next generation and, according to CTC standards, we are technology deficient and we must balance those scales if we are to educate competitive, competent, critical thinking, and technologically savvy educators for the next generation. Finally, by offering course specific tutoring on a larger space we can assist more students in meeting their academic goals and thereby remove the bottlenecks we are incurring because of repeated patterns of DFWI and the ripple effect of course repeats in already impacted courses.

Alternate solution(s) should this project not be funded:

We will continue to offer the same services but on a much smaller scale and to far fewer students and at a greater technological disadvantage. We will not be able to grow our existing community partnerships to meet the current and future demands nor will we be able to implement new community partnerships

Impact(s) if this project is not funded:

Our student space is open to all majors, but many of our visitors are Liberal Studies students - a major which has 1,200+/- students (5% of the entire student population). More importantly these students are learning to be the educators of tomorrow and they are intimidated by new technology. Without this project, our student space cannot function in a meaningful way for students to engage with each other and technology. Our students will continue to fall behind and not meet standards. Moreover, by stunting our ability to provide access to more student services where the students actually congregate we are damming up the bottlenecks even further with the ripple effect being that more students cannot complete their courses on time and we will have far fewer quarter completer than we might have otherwise.

Cost: $$ (One time or recurring)

$30,000.00 one time cost: (2) 75" monitors @ $3,000 = $6,000 (2) Solstice Wireless Connect @ $1,000 = $2,000 (4) Data Ports Installed @ $2,000 = $8,000 (2) Wireless Projectors @ $2,000 = $4,000 (2) Mac Computers @ $2,000 = $4,000 Cubicle Removal = $1,000 Construction and Installation = $5,000

What are your intended Process Outcomes and/or Student Learning Outcomes?

We expect to see higher graduation rates, lower DFWI rates, greater community engagement, increased visitor traffic, increased student use, increased student satisfaction, increased student engagement with community/technology/CSUSB, increased depth of mentorship, networking, and professionalization opportunities.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

We will rely on EAB and Dashboard to provide graduation and DFWI data. We will conduct student satisfaction surveys. We will measure visitor traffic. We will document increased community partnerships, student clubs, workshop, and tutoring entities and attendees. We will incorporate more technology driven assignments into our curriculum.

Project Timeline   **Start:** 7/2/2018 12:00:00AM   **End:** 7/2/9999 12:00:00AM   **First Quarter of Student Use**   Summer 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-d41fac3beff625458421aa16a4c83448_VETI_BUDGET_TEMPLATE.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

131

Division	Academic Affairs	College of Natural Sciences		77024
	Campus Division	**James**	**Noblet**	jnoblet@csusb.edu	909-537-5194

Total Amount Requested for FY 2017 $88,900.00

Project Title: Acquisition of an Inductively Coupled Plasma-Optical Emission Spectrometer for Modern Elemental Analysis in Multiple Disciplines

Project Abstract:

Since CSUSB opened in 1965 our capabilities in the area of elemental analysis have been based upon a technique known as Atomic Absorption Spectroscopy. Other than the control of the instruments and data acquisition by computer, this technology has changed very little in the last 50 years. Atomic Absorption allows for the analysis of elements one at a time, with significant down time for recalibration and set-up between elements. Due to the amazing advances in computer technology in the last 20 years in terms of speed and storage space, a different technology has become the mainstay of modern analytical laboratories. This other technique, Atomic Emission Spectroscopy, has the advantage of being able to measure up to three fourths of the elements on the periodic table (~75 elements) virtually simultaneously, and over a wide range of concentrations. This is only possible and practical because modern computers can acquire and process enormous amounts of data very rapidly. Therefore, Atomic Emission instruments have become the workhorses of modern analytical laboratories. This proposal is for the purchase of such an instrument, therefore brining the analytical capabilities of CSUSB truly into the 21st century. Although this instrument would primarily benefit students taking courses and doing research in the sciences, it could be utilized by any students working on projects requiring elemental analysis, such as food science, archaeology, and even art to determine the composition of clays, ceramic glazes, and paint pigments. Finally, this instrument would advance the four stated goals of the VETI program.

Challenge(s) this project will address:

Determining the elemental make-up of substances is a vital technique used in many scientific professions throughout the world in the field of biotechnology, manufacturing quality control, pollution control, and even archeology. While we have a relatively new Flame Atomic Absorption Spectrometer (FLAA), it can only measure elements one at a time and only down to part per million (ppm) levels. Many research projects require measuring elements down to part per billion (ppb) levels. Our current Graphite Furnace Atomic Absorption Spectrometer (GFAA) that can do this is over 12 years old, and has been utilized extensively for classes and research projects over the years. It has recently been through a series of repairs and some critical components have been replaced by used ones. It is currently working but is in fact approaching the end of its useful life. It would cost $60,200 to replace the GFAA with a new version of the same instrument, or 68% of the amount requested for an Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES). We feel it would be far better to spend 32% more money and get over 100% more capability and benefits. Rather than spending money on an instrument using old technology, it would be much better for our students to gain experience operating an instrument like the ones they would actually use when working in a modern analytical laboratory. This will put them a huge benefit when applying for jobs in a wide variety of fields that use elemental analysis by ICP-OES. The new instrument will also be used in our Chemistry 345 and 545, two classes that are required for our Chemistry majors. Currently the students use the older technology FLAA for the 345 class and the nearly dead GFAA for 545. The new ICP-OES will allow for utilization in both classes improving student success.

Alternate solution(s) should this project not be funded:

In addition to the VETI funding, we could seek funding from the NSF Major Research Instrumentation (MRI) program. However, this program is generally for very expensive instruments beyond the ability of any single university to afford. For example the Chemistry and Biochemistry department will need a new high resolution Nuclear Magnetic Resonance (NMR) Spectrometer soon, and these instruments can easily cost $300-$400 thousand dollars. It would be better to utilize those federal grant programs for the most expensive instruments we need to purchase in the near future. In addition, the chances of a program such as the MRI funding a project with the required funds requested here are low. Without a new instrument, research faculty have sent samples requiring multi-element analysis to outside laboratories for a fee. However, this means students lose the opportunity to use this instrument in specific required courses and research students do not have the incredibly valuable experience of generating their own data. Generating their own data teaches students both the advantages and limitations of modern analytical techniques.

Impact(s) if this project is not funded:

The Chemistry Department will continue to use the current older equipment for both teaching classes and research projects as long as the instruments continue to work. Such instruments will probably not attract much use from outside the Department of Chemistry. Current and future students will have the same experience student have had for the past 20+ years. While this is not bad, it is certainly not ideal and not an improvement in the learning experience for students and the research capabilities of the University.

Cost: $$ (One time or recurring)

In this proposal, we are requesting funds for the purchase and installation of the instrument. Other than these costs, there are both one time and recurring costs for the installation and operation of this instrument. One-time costs associated with special power needs of the instrument are expected to be minimal and will be paid for by the Department of Chemistry and Biochemistry. The operational costs of the instrument other than the typical power demand of any large instrument would be the consumption of argon gas. The instrument we are hoping to buy has the lowest argon consumption rate of any comparable instrument on the market and thus operation costs are expected to be a minimum. Certainly the cost of consumables is less than for our current instrument which requires special lamps for each element and furnace elements to be replaced for every 100 or so samples analyzed. This recurring cost will also be covered by the Department of Chemistry and Biochemistry and through outside research grants to CSUSB faculty which are possible due to the availability of this instrument.

What are your intended Process Outcomes and/or Student Learning Outcomes?

We believe that the acquisition of this instrument will address to some extent all of the student learning and student experiences outcomes stated for the VETI program. As stated on the VETI webpage: "The Vital and Expanded Technologies Initiative will be allocated in a manner beneficial to all students by providing them with technology experiences that:" • Enhance the technological resources at California State University, San Bernardino to support student success. o This instrument will absolutely enhance analytical capabilities of CSUSB and support student success in both teaching laboratory and research activities. • Broaden/enhance the quality of the academic experience through the use of technology in support of the curriculum; o Students utilizing this instrument will definitely be enhancing their academic experience by using state-or-the-art technology in both courses and for research projects. • Provide additional student access to technological resources and equipment needed in support of instruction; o This instrument will be used by students in at least one core upper division course in the Chemistry curriculum, and by research students from all CNS Departments, and other departments around the University. • Maintain and enhance the technological competency of students as it relates to their academic endeavors o As stated previously, this instrument represents the current state-of-the-art in modern elemental analysis. If we want our students to have the best possible academic experience and most relevant training and competency in the chemical sciences, instruments like this are absolutely necessary.

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

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Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

The Chemistry and Biochemistry Department will keep track via a formal request process and usage log of all Faculty and students using the instrument for a period of at least two years from the date of initial installation and operational readiness.   We will keep detailed information on projects and courses the instrument is being used for and how many students and faculty are involved.   We will ask each student who uses the instrument either for courses or for research to complete a brief survey on how the instrument was used, and how the capabilities of this instrument enhanced their learning experience and/or was vital to the completion of their research projects, as well as any problems that might have been encountered.   The survey will be given to all students that log in.

Project Timeline   **Start:**   7/2/2018 12:00:00AM   **End:**   6/30/2020 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-96dfbdcda4235064abee5a454870e429_Statement_of_Support_Dr._Tim_Usher.docx

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-11517e764e4b3fda72c1cebd6c9fbeb4_Letter_of_Support_Students_Chem_Club.docx

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-43da75e9f4297cab0a94d13ee44da347_VETI_Budget_2018_Noblet.xlsx

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

133

Division	Academic Affairs	College of Arts and Letters		108016
	Campus Division	**Andrew**	**oakes**	aoakes@csusb.edu	909 327 8353

Total Amount Requested for FY 2017 $19,527.00

Project Title: Purchase of Roland VersaCAMM® VS-300i Large-Format Inkjet Printer/Cutter

Project Abstract:

Large format print cut technology is a vital component of any technology based design studio, fabrication lab or maker space. It has multiple uses across many disciplines. These machines are used by designers, artists, marketers and educators to create promotional, industrial, architectural, graphic, package and communication design projects. It may also be used to support communications efforts on campus, giving students access to commercial quality output and experience in producing imprinted materials on paper, film, banner, and plastic in both large and small format. This project will address the missing vital technology of a printer/cutter for a design studio or fabrication lab.

Challenge(s) this project will address:

Currently all of the above mentioned areas on campus need to use outside resources to accomplish tasks that can easily be available on campus. The printer/cutter technologies are not new but are vital to the professional communications process. Students in these areas of study do not have access to this device and are currently using techniques to produce the work either by hand or a combination of machines (a separate cutter and separate cutter) that rely on expert level instruction and experience to produce viable results. With the advent of new affordable printer/cutter technology even novice users will be able to produce professional quality work. This work is vital to students who want to produce professional level results to use either in the marketplace, to place in their portfolios or to compete with students in other institutions that they will later compete with for jobs within several disciplines. Currently the resources that we have to accomplish professional results take a great deal of time to troubleshoot, experiment with and set up for each student. We consistently run into bottlenecks in our process of creation and each student struggles to complete their projects on time with the multi-step process we now have to engage in.

Alternate solution(s) should this project not be funded:

Continue to use our standalone printer and cutter, a sub-par solution that has been a struggle for several years.

Impact(s) if this project is not funded:

If not funded students will not have the available technology that is now common place in many design related firms and production design operations. In addition the impact on learning in the classroom is greatly affected due to the multi-step process that is now required to perform the same task that the advances in technology has created as a complete all-in-one workflow. Currently instructors and students experience situations where the troubleshooting phase of any project takes so long it pulls student and instructor from other classroom responsibilities leaving students to abandon the use of the current technology and do the work by hand leaving them with lackluster results.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Learning Outcomes The intended process outcomes include improved accessibility to the proper technology, increased efficiency in the production of materials and an expedited process to production improving overall student learning and classroom management.   Student Learning Outcomes: -   Students will have access to a new technology that will increase their effectiveness to create professional quality output at a huge time savings to their current processes. -   Studnets will learn industry specific skills that will enable them to be more valuable to a technologically driven studio environment. -   Students in other departments and in student assistant positions across campus will have access to this technology as they take their creations from concept to finished product. They not only will learn the proper set-up of files for production but also the production process itself. -   Students will benefit from interdisciplinary opportunities within the department including, studio art, art history and curatorial studies. Students outside the design area will be able to work with and interface with designers as they collaborate on shared projects and knowledge bases. -   Increased interdisciplinary opportunities outside the department including the marketing department, RAFFMA museum, Coyote Advertising and Communications. -   The technology will give traditional 2D artists the opportunity to move into the 3D world by leveraging existing knowledge of vector based two-dimensional drawing software applied to three-dimensional objects.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

We will provide evidence of the above outcomes in multiple ways. We will establish lab books that will be kept to account for the usage of the machine, its purpose and user information. We will compare previous student outcomes in the form of produced material in relation to the material created with the new technology and we will track individual coursework influenced by the new capabilities offered to students on campus. Finally we will establish a cost savings chart that will reflect the difference between outsourcing of projects vs. the ability of students to create these materials in-house at a significant cost savings.

Project Timeline   **Start:** 9/20/2018 12:00:00AM   **End:** 6/19/2020 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-a7840420e8ff9719d07651af6c8521f2_Statements_of_Support_forPurchase_of_Roland_VersaCAMM_VS-300i_Large-Format_Inkjet_Printer-Cutter.c

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-24387ecdbee2ef96dcfdd215834d430e_VETI_Support_Design-Printer-2018.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-30bc39b9d1ac8bdd167ba546e21a9a32_Purchase_of_Roland_VersaCAMM%C2%AE_VS-300i_.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

135

| **Division** | Information Technology Services | | | | 3096742 |
| | Campus Division | **Kevin** | **Cleppe** | kevin.cleppe@csusb.edu | (909) 554-0682 |

Total Amount Requested for FY 2017 $10,500.00

Project Title: Expanding Equal Access to Technology

Project Abstract:

"With the Expanding Equal Access to Technology project, the ATAC team is seeking to create a mobile ATAC computer station to address the needs of students and employees. As of now, individuals who are quadriplegic or suffer from ALS have limited options for using our current ATAC stations. With this project, we will address these needs by integrating voice reconigition software, eye tracking hardware, an adjustable HD touch screen monitor, and bluetooth and IR switches all into a single, mobile ATAC station that can be transported across campus, as well as PDC. In addition, we want to provide students access to assistive technology solutions that can be checked out, and used either off-campus or inside the classroom. As of now, students can usen the labs we offer to use our assitive technology. But students cannot always visit campus, or do not wish to commute to campus to simply use one of our computers. In addition, only two classrooms are currently equipped with ATAC stations, limiting the options for students who would like to use our solutions during class. With this project, the ATAC team's goal is to provide a range of portable assistive technology solutions for students who cannot make it to campus, or wish to use our technology inside a classroom. We will accomplish this by providing dual boot laptops, pre-installed with our assistive software, as well as iPads with assistive technology apps installed that can be used on the go or in the classroom.   "

Challenge(s) this project will address:

"Students who need assistive software but cannot make it to campus or need it in the classroom can check out one of our Assistive Technology solutions to accomplish their work anywhere they choose. This will also help to increase their independence and work efficiency, allowing them to no longer have to rely on others to accomplish their work.   In addition, this project seeks to provide a mobile ATAC station that provides assistive solutions for inviduals who are quadriplegic, suffer from ALS, or have limited fine-motor controls. We seek to accomplish this outcome by combining voice recognition software, eye-tracking hardware, and touch-screen capabilites to provide an all-in-one solution for a wide variety of individual needs. "

Alternate solution(s) should this project not be funded:

Should this project not be funded, we will request funding from the division of ITS

Impact(s) if this project is not funded:

 "If not funded, the students and staff who rely on our stations will have to continue to commute to the campus to accomplish their work. This proejct also seeks to provice parity for our users to be able to use our technology not only where they want, but when as well. As of now, our ATAC lab is only staffed from 8am-11pm, where as the Wedge, where it is located, is now a 24/7 workspace. With this project, students will no longer be limited to these hours to use our assistive technology. Without funding, they will be denied this opportunity.   "

Cost: $$ (One time or recurring)
$10,500

What are your intended Process Outcomes and/or Student Learning Outcomes?

"1. Provide parity of access (ability for 24-hour access) at ATAC and self-instructional computer labs for students with severe physical constraints 2. Students who rely on assistive technology will have the same availibility of laptop checkout as the general student body has enjoyed 3. Increase independence and reduce reliance for student's with severe physical mobility contstraints who utilize ATAC lab"

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

"1. Track usage of quad access station after hours 2. Laptops will be cataloged and checked out through the library laptop lending program. Metrics tracked via this program include; How many times laptops are checked out per quarter, How long they are checked out, and frequency of assistive technology use on the laptops. 3. A short Qualitrics survey to be taken both by student's with severe physical constraints and student assistants who provide assistance to individuals with severe physical constraints to determine impact"

Project Timeline   **Start:** 7/1/2018 12:00:00AM   **End:** 8/1/2019 12:00:00AM   **First Quarter of Student Use**   Summer 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-90a08fe24a887f7f55f3f4a57f4d24f3_VETI_BUDGET_TEMPLATE.xls.xlsx

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

136

88178

Division	Student Affairs			
	Campus Division Veterans Succes	**Agustin**	**Ramirez**	aramirez@csusb.edu	909-537-5196

Total Amount Requested for FY 2017 $50,960.00

Project Title: Operation UP-GRADE

Project Abstract:

The technology at the Veterans Success Center (VSC) San Bernardino Campus (SBC) and Palm Desert Campus (PDC) is becoming increasingly obsolete, making it difficult for students to perform even the most simple of tasks such as logging onto the CSUSB servers. Besides being frustrating for students, the outdated computers increase the wait time for students to use the computers, decreasing their productivity. In a demanding academic environment, efficient time management and maximizing productivity are vital keys to success. Thusly, the outdated technology is an obstacle to academic success, hinders the VSC's ability to support students, and appears to counter the mission, vision, and core values of student success at CSUSB. The outdated computers can no longer support software updates, and desperately need replacement with by state-of-the-art computers. Additionally, the VSC needs a student assistant who is knowledgeable of graphic design programs and comfortable around technology, who can assist patrons with IT questions and produce department promotional materials. Implementing this project will allow the VSC to address the following priorities: 1) Increase academic productivity and quality for students; 2) Increase IT outreach and assistance to students; and 3) Bring military culture awareness to CSUSB. The VSC is requesting $50,960.00 to purchase: 7 laptops; 10 computer workstations (8 workstations will be for the SBC, and 2 will be for the PDC); 5 computer wall mounts and installation; and funding for a year to hire an Information Technology Student Assistant.

Challenge(s) this project will address:

The computers and laptops at the VSC are outdated, as assessed by the IT technicians who service the VSC. At the San Bernardino VSC, four computers are six years old, and four are two years old. At the Palm Desert VSC, two computers are over 3 years old. All of the laptops are over three years old. Our IT technicians recommend replacing computers every four years, which is a consistent recommendation across all departments campus-wide. To avoid piecemeal replacements, which would leave some computers up-to-date and others not, we hope to replace all eight computers at the VSC in San Bernardino, and two additional computers at Palm Desert, and seven laptops. In total, the VSC would like to replace ten student computers and seven laptops. The VSC has the support of IT to update all the computers and laptops unilaterally to ensure equitable computer access and user experiences, and to ease universal software updates.   In this fast paced, highly competitive, technology-driven world, military-affiliated students at the VSC are struggling to keep up with their computer-based assignments. Software programs and operating systems have been updated so often that they have evolved beyond the capabilities of the hardware. The advanced software slows the computers and severely limits students' ability to produce quality work in a timely manner. The new computers capable of not only running the current programs but can also support any future updates will erase any current limitations due to do outdated technology.   Each year the VSC at SBC and PDC sees increased usage of the computer lab services, and laptop check-outs. In order to accommodate the annual increases, the VSC computers must run efficiently. Slow computers at best create a backlog of frustrated students waiting their turn. At worst, during peak hours, students are unable to complete or submit their assignments. The new computers and laptops will ensure all military-affiliated students will have access to current technology throughout their academic careers at CSUSB. Likewise, the addition of our smart classroom has allotted the VSC more physical space to accommodate computers. However, the multi-purpose layout of the classroom prohibits the use of stationary desktop computers. Placing five computers along two walls in the classroom will solve the spacing issue, while expanding access to computers. The VSC is requesting funding for five computer wall mounts, and the installation costs, to utilize the wall space for computer access.   Part of the VSC's success comes from bringing awareness of veteran issues to the CSUSB community by hosting various different events such as: Military Appreciation Night, Armed Forces Day, and Memorial Day. These events are not just for military-affiliated students, but they are also for the entire campus. To continue to be successful, the VSC needs to be able to create eye-catching and informative promotional materials to inform the CSUSB community of when events are taking place. The Information Technology Student Assistant will specialize in programs like Adobe InDesign to create flyers and agendas for VSC events, and put them on the appropriate websites as well as around campus, all within compliance of campus, state and federal regulations. Additionally, the VSC is primarily a resource center. Students rely on the staff to answer questions regarding software programs for class materials, and to troubleshoot computer issues. The VSC relies on the expertise of a student assistant who can assist patrons with IT questions and who produces department promotional materials; duties that are often delegated to the VSC staff members who are not subject-matter experts.   Currently, the VSC has a student assistant assigned to create all of the promotional materials. This student assistant will graduate at the end of the spring quarter. At this time, the remaining staff members do not possess the requisite IT knowledge or graphic design skill to create the promotional materials the VSC relies so heavily upon to be successful at each event. It is imperative for the continued success of the VSC to replace our graduating student assistant with a new Information Technology Student Assistant, who can produce our promotional materials and who can work as an in-house IT consultant for students.

Alternate solution(s) should this project not be funded:

Should this project not be funded, the VSC will look to secure new funding sources through our partnership between a university development director and a philanthropic grant specialist. Additionally, the VSC will promote the solicitation of donations during specific VSC events. However this is not a good model. Use of philanthropic revenue to fund basic student technology needs creates a deficit of funding for other academic and cultural activities which philanthropic funds traditionally support.   Staff will seek community partners who would benefit from the services and resources the VSC provides, and who will fit the VSC's missions and goals, and share expenses of future endeavors and projects. Moreover, the VSC will slowly roll out technology as the operational budget permits. Implementing this plan will dramatically inflate the time to complete the project. Nevertheless, the VSC is dedicated to providing the necessary technological resources for military-affiliated students at the PDC and the SBC. Without funding for the Information Technology Student Assistant, the VSC will be forced to solicit help from volunteers, with less reliable experience and inconsistent work availability. Additionally, current student assistants will have to spend valuable time teaching themselves how to use complicated software programs.

Impact(s) if this project is not funded:

Students using the VSC at the PDC and the SBC will be forced to endure prolonged wait times for access to computer workstations and suffer additional stress in an already hectic and in some cases unstable life. Many CSUSB military-affiliated students rely on the computers at the VSC to complete their academic assignments, because they cannot afford their own computers, and they are most comfortable in the environment the VSC creates. Without the new technology, they will be needlessly burdened, and forced to find and use other means to be successful. In so doing, the VSC would falter in upholding its commitment to provide resources for this unique population and will struggle to meet the standards of excellence set forth in the VSC and CSUSB mission, vision, and core values. The VSC cannot be forward thinking by using the technology of the past.

Cost: $$ (One time or recurring)

$50,960 one time

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

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What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes: 1.   Increase the availability and use of VSC computers at both SBC and PDC. 2.   Increase student access to computer-based classroom material. 3.   Increase student access to online benefits material. 4.   Increase attendance of VSC events open to the campus. 5.   Increase student access to technology specialist. Student Learning Outcomes: 1.   Students will learn how to use software, computer programs, for classroom use. 2.   Students will attend more events, and engage in campus life via VSC events. 3.   Student use of the VSC will increase.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

(1.1) The VSC will track computer usage through Qualtrics and compare the number of military-affiliated students using the computers during the current academic year to previous academic years. (2.1, 3.1) All new computers will have automatic surveys upon logging-on during which students will identify the motive for using the computers: Benefits, Classroom, Career, Personal. The VSC will record computer usage by prompting students with this brief survey when logging in. Computer usage records will be used to create a baseline, and assist with future assessment of needs and trends. (4.1) The VSC will track the number of attendees at each event and compare each event attendance to previous years.   (5.1) Using Qualtrics, the Technology Student Assistant will record the number of interactions and hours helping military-affiliated students with technology, and will create a portfolio of promotional materials. Qualtrics records will be used to create a baseline, and assist with future assessment of needs and trends. Portfolio materials will be submitted to the VETI committee for review, and will also be kept by the student for their resume.

Project Timeline   **Start:** 6/18/2018 12:00:00AM   **End:**   9/19/2018 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/191-910295967f3402cd965b9f46d3b01028_SVO_Up_Grades_LOS.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-4a7eac1b90ca6be19896c3a7010a1822_VETI_BUDGET_OPERATION_UPGRADE.xls2018.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

137

937754

Palm Desert Campus (PDC)   **Lacey**   **Kendall**   lacey@csusb.edu   (909)537-5781

Total Amount Requested for FY 2017 $100,743.55

Project Title:

PDC Paws Radio

Project Abstract:

Until this year, students on the PDC campus, who were not a part of that campus' nursing program, have had no facility to engage in any multi-level hands-on technology experience. In April (2018) the Palm Desert campus (PDC) will launch a new campus radio station/media-learning laboratory: "Paws Radio." The station will mirror the extraordinary student opportunities Coyote Radio has offered on the main campus for a decade. Currently; Paws Radio's studio equipment includes a control "booth" and a production (recording) area; installed with the state of the art professional hardware and software required to broadcast on a basic level. By the end of the Spring semester, this facility will offer up to 40 students per quarter, hands-on learning in broadcasting, streaming technology, digital audio production, broadcast journalism, strategic social media production, public relations, media programming, marketing and media promotion. Currently, both the production booth and control booth are housed in the same room (a former classroom) shared too, with the campus photography studio. Our facilities are cramped at this time, but we are working on solutions for the issue. The equipment this proposal seeks support for, would provide assistance with that issue and assure that students across disciplines are provided with an exciting multi-media facility that teaches students a plethora of the skillsets necessary in a media immersed era.

Challenge(s) this project will address:

Due to the fact that both recording and broadcast "booths" are just five feet from each other, our biggest concern is soundproofing; keeping the audio in one area isolated from the other. We also need various basic services and equipment that would allow the station to function legally, efficiently, and more space-effectively. This funding would enable us to respond to requests to broadcast live, out-of-studio, but on-campus events and would provide for two; 20 hour a week student assistants who would help maintain daily operations and train new (practicum and volunteer) students how to operate equipment and software.

Alternate solution(s) should this project not be funded:

We will be seeking financial assistance from the Instructionally Related Activities Board funds later this year, and other outlets as they present themselves.

Impact(s) if this project is not funded:

Paws Radio is already equipped to launch on schedule, however, without the assistance of Vital Technology funding, the quantity and quality of laboratory experience offered would be diminished by more than half. We would need to schedule and reduce the number of students allowed to participate. Without soundproofing, students will not be able to use the digital production station while another student is broadcasting, or while photography projects are taking place. Without student assistants, there would be one part-time staff member available to train students and assist them with equipment on Wednesdays only. Finally; without some of our broadcast equipment requests, our offerings as a learning lab would be limited to in-studio broadcasting and recording, without the ability to amplify the station at campus events, conduct remote broadcasts from elsewhere on campus, or take calls from guests or listeners during intellectual talk programming.

Cost: $$ (One time or recurring)

$16,165.00 – One time cost for technical equipment itemized and described in the attached spread sheet. $6,000.00 – Three years SESAC license fee to legalize broadcast over the internet at $2000.00 per year. $1,260.00 – Three years of Music 1 software-licensing fees for broadcast software at $420.00 per year. $77,318. – 36 months (3 years) of student tech assistance for two students. Total Funding Request: $100,743.

What are your intended Process Outcomes and/or Student Learning Outcomes?

The everyday purpose of the PAWS Radio learning laboratory is to create access to technology for all students, from all disciplines at PDC: Able bodied and disabled students alike, utilizing state-of-the-art tools of broadcast and digital media. Students at the facility will be able to engage in multi-tiered, strategic social media marketing and promotion projects for the station; to write and report hourly newscasts live on the air; to create intellectual programming aimed at our students and our community at-large, and invite great leaders and thinkers to participate in interviews conducted by PDC student journalists and broadcasters. Our students will-for the first time on this campus-have a facility where they can gain the skillsets that are required to become a media intern in the Coachella Valley: a market that is currently home to twice as many broadcast facilities as the Inland Empire and includes network facilities for ABC, NBC, NPR, and CBS Entertainment. PDC students will be able to graduate with real experience in media operation and technology, making them better prepared for success. This facility is where that experience will begin. In addition, as a broadcast facility, this station and our students will be able to elevate local and broad awareness of all student activities, offerings, and success stories. Students at both campuses of CSUSB have expressed an interest in conducting occasional simulcasts so that they can collaborate and share Coyote Athletic sporting events and important cultural presentations at both campuses, with both communities.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

All students utilizing the facility will be required to sign in and out, and check off services utilized or what type of project they were engaged in, while in the lab. This will allow us to gather and analyze the impact and influence on students, as well as to collect data on facility usage and needs. In addition, we will implement a student survey (quarterly) to evaluate the student experience and perceived value in program offerings.

Project Timeline   **Start:** 7/6/2018 12:00:00AM   **End:** 7/6/2021 12:00:00AM   **First Quarter of Student Use**   Summer 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/235-904c0db7ab38288e92c822871410d1c7_VETI_BUDGET_TEMPLATE_PDC_PAWS_RADIO.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:
138

Division	Information Technology Services				
	Campus Division	**Mihaela**	**Popescu**	popescum@csusb.edu	(909)537-3678

112293

Total Amount Requested for FY 2017   **$69,525.65**

Project Title: Virtual Reality Lab for Producing Engaging Instructional Content (Continuation Grant)

Project Abstract:

For this continuation of our 2018 VETI, we seek to build on the success of our virtual reality (VR) lab by expanding its capabilities. Virtual reality (VR)--immersive computer-generated environments that simulate the physical presence of people and objects using realistic sensory experiencesâ€"revolutionizes education by enabling teaching with high-impact practices, particularly experiential learning and project-based learning. The ATI VR lab allows faculty, students, and ITS staff to work together across disciplines to produce engaging VR-enhanced instructional content. The project currently in development, our first, is a series of learning modules that teaches students how to behave in an archeological field, from the choice of equipment to interferences about cultural artifacts. This project brought together faculty from across disciplines (anthropology, music, art, communication studies, computer sciences), student programmers and ATI multimedia specialists and received a lot of attention for its highly innovative content. We have received requests to produce VR-enhanced content for chemistry, nursing and education courses.   Additionally, several faculty would like to design courses to teach students VR production skills in order to make them competitive in the job market. We seek to acquire additional equipment that will enable us to meet the demand for VR-enhanced content, employ more students, and design courses to teach students needed skills.

Challenge(s) this project will address:

1. Good higher education content with immersive technologies (such as VR) does not exist yet. If universities do not invest in producing immersive content themselves, it will eventually be produced by vendors with no regard for pedagogy or for the financial circumstances of the students. Our faculty would like to produce their own free VR content that follows the pedagogical principles they consider best suited for learning. 2. We need to prepare our students for the future marketplace. VR is being widely adopted in a variety of industries, from news and film production to medicine and engineering. To prepare our graduates to be competitive, we need to develop courses and learning experiences that will teach our students to work with VR technologies. For example, in cinematography, filming in VR requires a different approach to storytelling, pre- and post-production, or editing. By the time our students graduate, VR cinematography will be the new normal and students who have already mastered the medium will have an edge. Learning how to work in this medium will make our students significantly more employable. 3. Learners expect content that is engaging and addresses different learning styles. Simulations using VR create unique learning experiences that students cannot access in any other way. Several programs on campus will benefit enormously from the creation of VR- enhanced simulations, for example simulations of various situations of patient care for Nursing and learning experiences for students with disability. More engaging lessons and better learning lead to an increase in the student retention rate and higher chance of graduation. 4. The VR lab is already showing to provide the infrastructure for project-based faculty-student collaboration across disciplines. This lab is a place where faculty and students from different departments already collaborate on projects such as a VR educational game, a VR-enhanced news story, or a VR-enhanced simulation with direct application in the classroom. By expanding this lab, we also seek to create a proof-of-concept model on how educators and students from different disciplines can work together, as well as create a larger variety of VR content.

Alternate solution(s) should this project not be funded:

We will continue to seek support from ITS. We will seek support from an external grant (however, that will introduce at least one-year delay in production)

Impact(s) if this project is not funded:

1. Inability to deliver on current commitments, which require a higher quality resolution than originally anticipated. 2. Students will not be able to engage in authentic project-based learning: There is something inspiring and highly motivating when you see other people benefiting from your work. We would love to see a model whereas students engage in VR content production and that content is eventually used by students from a different discipline to learn better. If this project is not funded, students will probably continue to learn production skills in various courses, but they will have no opportunity to apply these skills or to engage in project-based learning for campus-supported projects. 3. Inability to attract campus partners: The key to enabling VR production on campus is to make the VR production lab self-sustainable by attracting community partners in the future. If we cannot produce content that has the kind of quality needed to attract these partners, our VR initiatives will eventually run out of funds. 4. Inability to produce a variety of VR content: We will not be able to produce content beyond the current archeological project. Thus, disciplines such as Nursing and Chemistry wonâ€™t benefit from these enhanced learning opportunities.

Cost: $$ (One time or recurring)

One time: $69,527.65

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process outcomes:â€¨ 1.1 Create new courses dedicated to teaching VR-specific skills to students, thus improving the marketability of students 1.2 Create VR-enhanced instructional material 1.3 Create VR-enhanced media for Nursing, Chemistry and the College of Education 1.4 Increase student engagement with education, thus contributing to student success 1.5 Create more internship opportunities for students in the VR lab for the acquisition of new skills Student learning outcomes:â€¨ 2.1. Create new ways to teach and learn 2.2. Produce experiences that transcend language barriers and enhance student access; 2.3. Improve experiential learning by simulating experiences unavailable by other means; 2.4. Acquire skills for producing content in the VR medium.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Process outcome KPI's:â€¨ 1.1 Number of new courses teaching VR development skillsâ€¨ 1.2 Number and quality of VR-enhanced instructional materials createdâ€¨ 1.3. Number and quality of other VR-enhanced materials used by the campusâ€¨ 1.4. Improvement in student engagement as measured by a before- and after-survey in a pilot class using VR technologyâ€¨ 1.5. Number of internships and student satisfaction with themâ€¨ 1.6. The development and testing of a collaboration process among faculty, students, instructional designers and instructional technologistsâ€¨ Student learning KPI's:â€¨ 2.1. Improvement in student engagement with instructional content. 2.2. Mastery of 21st century skills

Project Timeline   **Start:** 8/1/2018 12:00:00AM   **End:** 6/11/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmolibrary.s3.amazonaws.com/library/196359/VETI2018Budget.xlsx

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

139

| **Division** | Academic Affairs | College of Arts and Letters | | | 24192 |
| | Campus Division | **Eva** | **Kirsch** | ekirsch@csusb.edu | (909)537-5493 |

Total Amount Requested for FY 2017 $20,000.00

Project Title: Students Engage and Experience Art and Museums through Technology

Project Abstract:

With its collection data base now up (Thank you VETI!), RAFFMA plans a new project – a transformation of the museum's "Event Space" into a "Smart Event Space" for the enhanced experience and additional learning and research opportunities for CSUSB students. When the project is completed, the students will be able to experience our exhibitions and collections in an interactive way, at many levels and in new dimensions. We ask VETI for $25,000 to fund all technology components of the project, including: • AV system, projector, and Mac lap-top to enhance the overall value of our events and to make them worthy of sharing with CSUSB students. • Research stations equipped with desktops and Virtual Reality systems (HTC Vive/Oculus Rift) to help students to research exhibitions and collections, and to provide them with an enhanced experience (collection objects available through VR in their original context). • Recording/streaming equipment to enable recording, archiving and live streaming of our programs, including course assignments that result in student performances. If funded and implemented, RAFFMA (the only accredited art museum in town) would offer high quality and innovative instructionally-related and general student education and engagement programs. By broadening and innovating student access and experience, the museum would support the student's academic success and Graduation Initiative 2025. RAFFMA aspires to offer viable technological resources, research opportunities, and an unforgettable experience to close to 7,000 students visiting the museum each year, to innovate academic instruction, and to enable interdisciplinary projects through global connections and access.

Challenge(s) this project will address:

- The quality, accessibility and enhanced experience of RAFFMA exhibitions and collections redefining the museum as a resource for CSUSB students.

Alternate solution(s) should this project not be funded:

- The capacity for life streaming of programs directly to classrooms or recording and archiving for the future use. - Innovation in learning and research

Impact(s) if this project is not funded:

- RAFFMA will be behind other university museums and galleries around the world in terms of instructionally engaging technologies.

Cost: $$ (One time or recurring)

$30,000, one-time (with $10,000 matching for other project components)

What are your intended Process Outcomes and/or Student Learning Outcomes?

- Process Outcomes include: * the permanently transformed space, which will be widely (and for a long time!) used by CSUSB students and other visitors. * increased museum's attendance * increased programmatic offer * enabled real and virtu

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Measure I Checking in all the students who visit the museum, and specifically those using the "Smart Event Space" conducting research or experiencing the museum in an innovative way. The check in will be done by our newly designed and launched computer check-in system. Outcome I Record will be kept of how many students are checking in and using the technology. Measure II Provide students with significantly enhanced (and always recorded and archived!) and easily accessible instruction in form of various museum events (workshops, lectures, interviews, seminars, performances and other) through technology as well as the collection access. Outcome II Record of attendance, see above. Pre- and post- visit and other forms of surveys will be handed out to determine student satisfaction with the new resources. Measure III Hire a CSUSB graduate students intern to help us to set up (and program) the equipment "Smart Event Space" providing her/him with a quality professional experience and instruction. Outcome III After the student interns have completed the task, she/he will have a comprehensive professional knowledge in the area of technology and also museum work and experience.

Project Timeline   **Start:** 8/1/2018 12:00:00AM   **End:** 7/1/2019 12:00:00AM   **First Quarter of Student Use**   Winter 2019

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-e40f5445da902178d789c122bec2ffaf_RAFFMA-VETI_Grant_letter_Debbie.docx

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/99-e51d1b29c220c31b1ea0e43d86cdb6b8_RAFFMA-VETI_Grant_letter_Maia.docx

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-03e9ab6d6d98708cacd40d3e5f9c5564_RAFFMA_VETI_BUDGET_2018.xlsx

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

140

Division	Academic Affairs	Jack H. Brown College of Business and Public Administration	4220514
	Campus Division	**Kasandra** **Adams** kasandra.adams@csusb.edu	909-537-3706

Total Amount Requested for FY 2017 $22,521.00

Project Title: Cultural Navigator

Project Abstract:

In today's global economy students need to be able to work in diverse teams and understand a variety of cultures to be successful. This web-based application provides comprehensive cultural and business information designed to increase a student's advantage in today's global business economy.   Cultural Navigator is a recommended (Harvard Business Review https://hbr.org/2012/10/collaborating-across-cultures), unique, and personalized learning experience. This technology promotes active learning and can provide students with a global experience, in the event they are unable to participle in a study abroad trip. Providing this program to our students will give them increased advantages and opportunities in today's global business economy. This platform will also be a resource for international students who often have difficulties assimilating into US culture. The software will provide them the tools to develop their cultural understanding and enable them to feel more comfortable in class, participate in teams, and ask for help; therefore promoting student success and timely graduation. Not only will this teach students to work better in the diverse CSUSB classroom environment, it will ease the transition of newly graduated students in today's global economy. Better preparing them to telecommute, work in a global team, travel abroad or manage a diverse team. The platform offers an individual assessment to allow the students to learn where they can grow and provides a custom learning plan to assist in successful practice. This application will increase the students understanding of diversity and inclusion, as well as increase self-efficacy and make them career ready.

Challenge(s) this project will address:

Not every student has the opportunity to travel abroad, which employers have expressed make them more desirable candidates. Students are unable to participate in study abroad for a variety of reasons for, i.e., financial stress, family responsibilities, and employment responsibilities. Technology is the answer to this issue. By allowing our students a chance to develop their skills in diversity and inclusion electronically, we are providing an alternative solution, ensuring every student has an opportunity to learn these vital skills.

Alternate solution(s) should this project not be funded:

Should this project not be funded we will put together a proposal for our JHBC dean and ask that the proposal be funded by our college. We believe this opportunity should be offered to all 20,000+ CSUSB students. However, given a limited number of staff (as our current staff members will have to be trained in this application and become experts for our students) we are only asking for this opportunity for our MBA students. USC, Columbia Business School, and Notre Dame have all purchased this platform for their students.

Impact(s) if this project is not funded:

 Students who are unable to practice cultural diversity through programs, like the study abroad will lack a well-known competitive edge in their training and diversity. They will also be less prepared to practice
 inclusion as well as work and communicate with diverse teams. Without this technology, students will miss the opportunity to benefit from a new learning style.

Cost: $$ (One time or recurring)

We are requesting funding for a one-time cost of $22,521.00 to purchase Cultural Navigator for 2 years and 5 laptops. We would like to purchase a group license which will provide access to 201-500 users/students at the cost of $10,000 (this includes a 35% discount as we are an academic institution). There is also a two year $5,000 set up fee; this includes but is not limited to: training for a staff member to become proficient in using this application, culture guides for over 100 countries, webcasts, user reports, customized login page, customized learning paths for each user, learning communities, monthly reports, individual reports, and customizable program topics. The cost can be broken down to $30.00 per student license. The laptops will be used by staff for their initial and ongoing training with Cultural Navigator and for demonstrations/training with faculty and students who are interested in this application. Laptops will also be available for use by students at our advising and orientation sessions where they will be given an opportunity to browse through Cultural Navigator and utilize one of the many opportunities available to them through our MBA office.

What are your intended Process Outcomes and/or Student Learning Outcomes?

1.   Students will be more effective communicators in diverse teams. 2.   Students will feel confident in their ability to function as part of a logistically diverse environment. 3.   Students will have a greater understanding of diversity, inclusion and cultural differences. 4.   Students will be better prepared to navigate telecommunication and other digital team work platforms technology. 5.   Offer learning experiences that are otherwise unavailable to students. 6.   Students will gain more self-awareness and confidence in their individual abilities.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1.   Student self-assessment, pre and post platform usage. 2.   Student satisfaction and self-confidence survey 3.   Student self-assessment, pre and post platform usage. 4.   Display of ability to use the provided technology. 5.   Measure usage by students who have not or do not plan to participate in a study abroad. 6.   Student self-assessment, pre and post platform usage.

Project Timeline   **Start:** 7/1/2018 12:00:00AM   **End:**   9/1/2020 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-0c107452adf84d5a3a1f74173c91ac86_Cultural_Navigator-_Budget.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

141

Division	Academic Affairs	Jack H. Brown College of Business and Public Administration	24842
	Campus Division	**Michael**　　　　**Stull**　　　mstull@csusb.edu	909-537-3708

Total Amount Requested for FY 2017　　　**$19,001.00**

Project Title:　　　Enhanced Prototyping for Student Innovation

Project Abstract:

The Catalyst Business Accelerator was launched in the Jack H. Brown College of Business and Public Administration by the Inland Empire Center for Entrepreneurship (IECE) in an effort to support students that are interested in exploring and developing their ideas and innovations. The accelerator program assists students in moving their ideas forward and potentially turning them into new enterprises (whether that be for-profit or nonprofit). The program does that by providing physical working space, access to technology equipment including a 3D printer, and hands-on mentoring and support from a full-time "entrepreneur in residence" who provides input and guidance to the students as they develop their ideas.   Students participating in the program initially have indicated that the support is invaluable, but additional capability and tools are needed to help them develop physical product prototypes. Specifically they are requesting upgraded 3D printing and scanning equipment and access to better tools to support other ways of prototyping new products (including electronics). Based on this student feedback, we aim to implement this in the Catalyst Business Accelerator located in Jack Brown Hall (JB-284) and leverage the more than $50,000 already invested over the last two years in this program. The Accelerator is available to any student at CSUSB, and we currently have a wide range of students accessing the program representing fields such as physics, music, kinesiology, business, and computer engineering.

Challenge(s) this project will address:

A prototype is an early sample of the product that a student wants to build. It can be something as simple as hand-drawn sketches or a clay model, or more advanced such as a 3D printed item that may demonstrate a limited or fully functioning product that people can feel and use. Essentially a prototype is an early iteration of a product, demonstrating its appearance and functionality. Having the additional equipment will allow for more extensive prototype development and give students more options to help move their ideas and innovations forward. The current 3D printer is very basic, and does not allow for larger and more detailed designs using more robust and advanced materials. As such, student prototyping is limited to specific sizes, lower level of detail, and limited materials. The addition of a 3D scanner, (which is a device that analyses a real-world object to collect data on its shape and appearance which can be can then be used to construct digital three-dimensional models) will help students to turn hand constructed prototypes using less expensive materials into more advanced 3D printed prototypes. Prototyping is critical to helping develop products – students need to get feedback from the potential users of the product, make changes and continue iterating until it is clear what the final product should be in terms of form and function.   Since prototyping is more than just 3D printing, this project will also add capability for students to create basic electronic prototypes and engage in projects that require robotics. Currently we are seeing more need in this area from students working in the accelerator, but do not have the equipment to support it. As an overall project, we feel that this most specifically addresses the desired criteria or enhancing student experience and success. The support and prototype development provided through the Accelerator program puts students that wish to carry forward their ideas and innovations and potentially create an enterprise a significant head start in that endeavor. As we have seen in the early stages of the program, this can result in enterprises that are launched and funded while students are still working on their degree (e.g. Kids That Code, a technology startup that launched here and is currently in revenue and based in the community).

Alternate solution(s) should this project not be funded:

The immediate solution is to send students to other entities (such as a local makerspace) that may have the capability to assist them in developing more advanced 3D printed prototypes or electronics/robotics prototypes. The challenge with this is that such entities charge for these services and there are very few of them available in the Inland Empire.

Impact(s) if this project is not funded:

 Students that wish to develop more advanced prototypes or prototypes that require some degree of electronics and robotics while here at CSUSB will be limited in a fundamental way. Since many of these students are often highly motivated, they will often find alternative ways of producing the prototype but often at great expense. Alternatively, some students will simply delay or postpone their work on developing the idea/innovation until another time – which means that momentum, interest and potential support from the Accelerator program is lost.

Cost: $$ (One time or recurring)

The overall project cost as outline in the budget proposal is $19,001 which includes all equipment. This is a one-time cost, as all ongoing maintenance and upgrade costs will be covered by the Jack H. Brown College of Business and Public Administration. The Inland Empire Center for Entrepreneurship is providing $5,000 of matching funds to support this project, in addition to the $50,000+ that has already been invested in the overall equipping and operating of the Accelerator project.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process outcome 1 – more advanced prototyping capability will be available for all students to take advantage of.   Student outcome 1 – students will be able to develop more advanced prototypes for projects involving 3D printing, robotics and electronics.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

For Process Outcome 1, we will track the number of students using the technology.   For Student outcome 1, we will track the number of students developing more advanced prototypes using the new equipment.

Project Timeline　　　**Start:**　8/1/2018 12:00:00AM　　　**End:**　　8/1/2025 12:00:00AM　　　**First Quarter of Student Use**　　Fall 2018

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/235-b1ba770a6ce7892189957a9e69fb607d_Letter_of_Support_-_UpStarters_-_JB284.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-ddc2bc9f0f26d69bb0936b20bcb79bf1_IECE_Support_Letter_-_Catalyst_-_JB284_-_Mar_2018.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-e27fddbfc83ac7e178c8e69cbdc36467_VETI_BUDGET_TEMPLATE_IECE_2018-EPSI-284.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

142

Division	Student Affairs				6487750
	Campus Division Student Health C	**Elizabeth**	**Amezcua**	elizabeth.amezcua@csusb.edu	909-537-3296

Total Amount Requested for FY 2017   **$12,000.00**

Project Title: Advancing Yotie Wellness with Technology: Health Promotion FitBit Pack Program

Project Abstract:

The CSU Chancellor recognizes that Student Engagement and Wellbeing is essential to each student's academic experience. As Wellbeing is a key factor to the GI2025, Health Promotion (HP) is seeking the approval to purchase the FitBit Blaze. The Blaze is a technology-based tool that encourages healthy (and safe) behaviors. According to the CSUSB National College Health Assessment (2016) 50% of our students are Overweight, Obese Class I, II, or III; compared to 36% nationwide. Only 44% of CSUSB students meet the physical activity recommendations (ACSM, AHA). 20% of our students indicate that [lack of] sleep negatively affects their individual academic performance, follow by stress (33%) and anxiety (21%). Yoties also feel extreme amounts of loneliness, hopelessness, and sadness. The Student FitBit Pack would enable students at CSUSB/PDC to move more, sleep better, and feel more connected to their peers. HP will utilize the Blaze by organizing students into Packs of 10 students. Each pack will have a leader (Peer Health Educator) that will outline weekly goals and education to supplement and encourage progress. Students also have the opportunity to engage with technology they may otherwise not have the ability to. Blaze has the capability to communicate via device, set movement reminders, track the critical stages of sleep (Light, Deep, REM) and track movement. The ideal natural of the Blaze is user friendly to students with disabilities and those mobility needs. In a small Pack setting, Blaze is ideal for creating community and improving the overall student experience at CSUSB/PDC.

Challenge(s) this project will address:

Students will have greater access to and connection with technology that encourages healthy behaviors. They will also feel a greater sense of community and connectedness when engaging in our FitBit Blaze program (a quarterly program).

Alternate solution(s) should this project not be funded:

If this program is not funded, we will continue to use old (1st) generation activity trackers that we currently have. Health Promotion currently has 20 activity trackers that were purchased in 2015. We will use them the best we can; however, the straps are worn out and the trackers are falling out. Each quarter we offer 20 spots to CSUSB students (no PDC students) and we consistently have a waiting list of up to 30 additional students who would like to engage in the program.

Impact(s) if this project is not funded:

Should this program not be funded, we would except to stop the program as of Fall 2018 due to the condition of the current activity trackers we have.

Cost: $$ (One time or recurring)

One time.

What are your intended Process Outcomes and/or Student Learning Outcomes?

1.   A significant increase in the number of students participating in the program each quarter. Not limited to students at PDC. 2.   Students will understand the relationships and benefits to healthy behaviors (movement/fitness, sleep, nutrition, community) to their wellbeing and academic achievements 3.   Students will learn key skills to improving health behaviors for movement/fitness (explore options suchs as bike riding, hiking, swimming, sports), sleep (monitor REM cycles and keep sleep inventories), nutrition (healthier/balanced meals on a student budget, SNAPEd education), and community (engaging with peer students on a weekly basis).

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Health Promotion will utilize Qualtrics for all assessment. Pre-assessment will generate information on individual health behaviors and will be compared to post-assessment changes/improvements. Satisfaction surveys will be utilized at the end of each quarter to assess likeness and improvements in the overall program. Weekly assessments will be sent and correlated to the weekly goal. Follow up from each team coach will encourage student participants to stay on track with goals.

Project Timeline   **Start:** 8/1/2018 12:00:00AM   **End:**   8/1/2022 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-6b88e35eeab63d70915e979febb74956_VETI_SHCHP_Fitbit_budget.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:
143

Division	Student Affairs				3875520
	Campus Division Student Health C	**Richell**	**Marracino**	richelle.marracino@csusb.edu	909-537-7444

Total Amount Requested for FY 2017 **$9,000.00**

Project Title: SHC Mobile Check in

Project Abstract:

CSUSB Student Health Center is seeking funding for 10 Dell Latitude 5258 2-in-1 tablets to use as mobile check in for student appointments. The utilization of a mobile tablet will significantly improve the student experience, be more accessible for students with disabilities, and improve the timely nature of medical appointments. The system SHC currently has, has led to frequent student complaints and concerns regarding efficiency and time.* Students often do not come in contact with staff until after check in, making their experience less that desirable. They are required to check in at a computer station which can take upward of 20 minutes, creating a back-log of late appointments. The current check in stations are stationary standing-only computer stations which are not accessible and do not lend to a quality experience at SHC. Utilizing the mobile tablets will allow students to move through the health clinic with the tablet, giving students the ability to start their appointment on time. It also provides multiple opportunities to come in contact with professional and medical staff prior to their appointment starting. Each tablet will only be used for medical appointment check in, and we except the life of the tablet to be sustained over time. The mobile tablet system will dramatically improve the quality of care students are experiencing. Elizabeth Amezcua attending the VETI training workshop on behalf of Dr. Richelle Marracino.

Challenge(s) this project will address:

Student feedback we receive indicates many students are not satisfied with their initial contact at the health center. Students describe their experience as intimidating, unwelcoming and impersonal.   2. A student is unable to check in for an appointment until they have completed a series of often lengthy medical questionnaires, while standing at a computer kiosk in the lobby. 3. A student's first contact is with a computer, before they talk to a human being and complete the check in process.   4. The questionnaires impede the check-in process, which often results in students not being seen on time. This creates a back log of students coming through the clinic, and wastes students' precious time. 5. The current check in process is not accessible for individuals with visual, hearing and/or mobility impairment. 6. It is already difficult enough for many students to muster the courage to seek medical attention. If this is complicated by the aforementioned problems, students may be less likely or completely unable to access much-needed services. 7. If students do not get the help they need, this may compromise their ability to stay enrolled, graduate and succeed.

Alternate solution(s) should this project not be funded:

If this program is not funded, we will continue to use the current check-in system with the aforementioned problems. We have tried many workarounds, and will continue to do so.

Impact(s) if this project is not funded:

Should this program not be funded, we would expect continued problems with the seven (7) items listed in Question #18. In other words, continued accessibility problems for students with visual, hearing and or mobility impairment, poor student satisfaction with our check-in process, significant bottle-necks in the flow of students through our clinic, continued obstacles to providing the quality of care the Student Health Center strives for, and the inability to fully support students in their academic career.

Cost: $$ (One time or recurring)

One time

What are your intended Process Outcomes and/or Student Learning Outcomes?

Hand-held tablets for check-in will address the challenges the SHC faces in the following fashion: 1.   It will make the student's experience more welcoming and inviting, by making their first contact with an actual person instead of a computer. 2.   Students will be able to check in immediately, upon walking into the health center, and will be able to work on the questionnaires while they wait to see their provider. 3.   Tablets will improve SHC accessibility, by allowing students with mobility impairment an equitable option for checking in. The tablets also have built-in accessibility features for students with visual and/or hearing impairment. 4.   By removing barriers to check-in, students will receive the services they need in a more efficient manner. It will improve the flow of students through the clinic, which respects students' schedules by limiting the time they spend waiting. 5.   A more positive experience will increase the likelihood students will utilize much-needed health services. 6.   This will improve student satisfaction with our services. 7.   Students' ability to receive needed services will contribute to student retention and success.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Student Health Center will utilize Qualtrics for all assessment. We will continue to implement our patient satisfaction survey to ensure the overall experience is improving and acceptable. Utilization of our electronic medical record system to monitor clinical efficiently.

Project Timeline   **Start:** 8/1/2018 12:00:00AM   **End:** 8/1/2023 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-bbaa32c60a1573b98a6fc2c7ae608f2a_VETI_SHC_budget.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

144

4902881

Palm Desert Campus (PDC)　　**Patricia**　　**Weyand**　　pweyand@csusb.edu　　909-537-8159

Total Amount Requested for FY 2017　　$25,978.45

Project Title:　　Turn Key Podium for Indian Wells Theater

Project Abstract:

With the growth of the Palm Desert campus, there is a need for additional space for student engagement. For any event held in the Indian Wells Theater, an Equipment Specialist and a lighting specialist need to be present to provide audio and lighting support. The need for a mobile instructional podium, that can manage computer, audio, and visual components of the theater would expand its utilization so more students events could be held in that space without the need of additional staff. A truly mobile podium would be able to manage the projector and scree, handle most audio and lighting demands, and integrate a DVD/blu-ray player so students could hold seminars, events, contests and other like activities without putting additional demands on staff.

Challenge(s) this project will address:

The challenge this project addresses is the under utilization of a much need space on campus for student engagement.

Alternate solution(s) should this project not be funded:

The use of one time funding from the State of California budget.

Impact(s) if this project is not funded:

The Indian Wells Theater will remain under utilized and the student will not be able to expand their activities that would require indoor space.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process outcomes: More student engagement which would increase our number one strategic goal of increasing student success. Increase attendance in student activities because it can hold more people.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Document types of events and corresponding attendance. Survey students for satisfaction of events and suggestions for more /different activities.

Project Timeline　　**Start:** 7/9/2018 12:00:00AM　　**End:** 10/31/2018 12:00:00AM　　**First Quarter of Student Use**　　Winter 2019

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-cbe5aa99be6a034f6bb20b983bcd2297_CSUSB_-_Theatre_AV_Upgrade_3-1-18.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-242dee6e63b43ecb0bb903aabbadb27e_VETI_BUDGET_PDC_IWT_Podium.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

146

Division	Student Affairs				
	Campus Division	**Grace**	**Castillo Johnson**	grace.johnson@csusb.edu	909-537-3070
	Student Health C				

5815546

Total Amount Requested for FY 2017   **$67,500.00**

Project Title: ATOD Committee Alcohol and Drug High-Risk Behavior Prevention Education Program

Project Abstract:

California State University, San Bernardino is committed to providing students with alcohol and drug education training that is evidence based, engaging and supports campus goals in meeting compliance requirements with the Department of Education. The campus Alcohol, Tobacco and Other Drug (ATOD) committee researched various higher education alcohol and drug education training programs available which resulted in the decision to contract with EverFi for AlcoholEdu, which is an evidence based interactive online program designed to reduce the negative consequences of alcohol and drugs among students. AlcoholEdu promotes healthy habits through adaptive learning, realistic scenarios and hands on activities. Courses are optimized for students to impact behavior, address wellness challenges and supports meeting Title IX requirements. In addition the program has a specific focus in assisting to change social norms impacting high risk behavior prevention. AlcoholEdu is the most widely used alcohol prevention program in higher education, assisting compliance with Education Department General Administrative Regulations (EDGAR part 86). AlcoholEdu was piloted in the DHRE starting fall quarter 2017. Currently 69% of all campus residents have completed part one of the training. The program has shown great success with a 37% compliance rate which is above the national average for the implementation period and supports a high utilization rate for student constituent groups. As a result of the success of the DHRE pilot, the ATOD committee is recommending to roll out the program to the entire campus student body and seeks funding to support us in our efforts.

Challenge(s) this project will address:

The implementation of AlcoholEdu at CSUSB as the baseline alcohol and drug prevention education strategy for our campus will increase alcohol and drug education provided to students and reduce high-risk drinking behavior. Students will acquire the knowledge and skills necessary to decrease their alcohol, marijuana, and other drug use and decrease their probability for acquiring university conduct violations due to alcohol and/or drug use. AlcoholEdu will also serve as a platform for all students, including those of diverse abilities to have enhanced technical access to on-campus resources, including risk-reduction skills and tools to moderate their drinking/drug use behaviors at San Bernardino and the Palm Desert Campus. In addition it will address prior compliance audit issues identified by the DOE for our campus.

Alternate solution(s) should this project not be funded:

If this proposal is not funded through the VETI grant an alternate solution includes presenting this proposal to Associated Students Incorporated. Ultimately if neither grant committee selects to fund this proposal, the least popular solution includes requesting each unit/college participating in the program to fund a portion of the cost. This would be a challenging solution for all units involved as unallocated financial resources are scarce and operational needs vary greatly from department to department.

Impact(s) if this project is not funded:

If not funded, California State University, San Bernardino will continue to be out of compliance regarding providing a comprehensive alcohol and drug education program focused on reducing high-risk drinking behavior mandated by the DOE. In addition, there will continue to be increased referrals to Student Conduct and Ethical Development as students will not acquire the knowledge and skill set necessary to decrease their probability of acquiring university conduct violations due to alcohol and /or drug use.

Cost: $$ (One time or recurring)

The EverFi contract includes a three year financial commitment at $22,500.00 per year. ATOD has partnered with The Department of Education and Residential Education who have fronted the first year of the contract so that we could begin implementation fall, 2017. We are requesting a one-time allocation of $67,500.00. Once, the initial EverFi contract has expired, future contracts may be funded through the Student Health Fee Referendum. Total cost is estimated at $1.10 per student per year ($22,500/20,455 total student population fall 2017), which is a substantial return on investment impacting CSUSB students health and well-being by reducing high-risk behavior.

What are your intended Process Outcomes and/or Student Learning Outcomes?

1. Students will increase their skills to make informed decisions about alcohol, marijuana, and other drug use. 2. Students will acquire skills to help decrease their alcohol, marijuana, and other drug use. 3. Students will increase their knowledge and skills in assisting other students who are experiencing concerns related to alcohol, marijuana, and other drug use. 4. Students will decrease their probability for acquiring university conduct violations due to alcohol and/or drug use.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

AlcoholEdu uses data and analytics to inform strategy and drive student and institutional success. Attitudinal and behavioral data from the CSUSB student body population will be nationally benchmarked with the EverFi database to assess needs and strengths. In addition, part of the EverFi contract includes access to dedicated prevention experts to support design, implementation and evaluation of our campus strategic program and to assist with any assessment and key indicator measures that may be unique to our campus. The assessment plan and key indicators identified during the completion of the DHRE AlcoholEdu pilot phase during fall and winter quarter 2017 include the following: 81% reported the course prepared to prevent an alcohol overdose. Measure 1 provides evidence of learning outcome 1, 2, and 4. 85% reported the course prepared then to help someone who may have alcohol poisoning. Measure 2 provides evidence of learning outcome 3. 84% reported the course helped them establish a plan to make responsible decisions about alcohol. Measure 3 provides evidence of learning outcome 1, 2, and 4.

Project Timeline   **Start:** 9/18/2018 12:00:00AM   **End:** 9/18/2020 12:00:00AM   **First Quarter of Student Use**   Fall Quarter 2017

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-a078721efc1aa93673482c3bbb26317c_VETI_BUDGET_Proposal_031618.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

147

Division	Academic Affairs	College of Natural Sciences		5116809
	Campus Division	**Qingquan**	**Sun**	qsun@csusb.edu	(909) 537-7437

Total Amount Requested for FY 2017 $78,372.00

Project Title: Advancing Computing Lab with High-Speed GPU Technology

Project Abstract:

The computing lab at School of Computer Science and Engineering provides a unique computing, programming, designing, experimenting and implementing environment to students in support of their learning and research. It plays a critical role in offering tools, software, devices, platforms, operating systems to expose students to cutting edge technologies and prepare students with corresponding skills. However, the current Linux work stations in the computing lab are around 10 years old. They are technologically obsolete and cannot meet both instructional and student learning needs, especially in graphic processing, game development, big data and artificial intelligence fields, which have high demand of graduates in industry. The purpose of this project is to advance the computing lab with high-speed GPU technology to satisfy the need of advanced graphic processing capability for multiple CSE courses (e.g. CSE 440 Game Design, CSE 513 Advanced Artificial Intelligence), so that to deliver timely knowledge and emerging technologies to students. The mission is to improve student outcomes and success to meet the goals of CSU 2025 Graduation Initiative. The application seeks the fund to purchase new work stations integrated with advanced GPUs. Such work stations are necessary for higher education in computer science and engineering fields, to cultivate experts that can meet the demand of high-volume, high-resolution, high-speed data processing expertise in modern society. This project will benefit around 1200 students. The availability and accessibility of such equipment is critical for fulfilling the mission of improving student learning, graduation and success, and thus contributing to 2025 Graduation Initiative.

Challenge(s) this project will address:

1.   To meet the goals of CSU 2025 Graduation Initiative, the graduation rates of Computer Science and Computer Engineering students need to be further increased. Computer Science and Engineering major highly relies on computing devices. Students always need these devices to design, program, compute, implement both software and hardware applications. Therefore, the availability and accessibility of advanced computing devices have a direct impact on student engagement, retention and graduation. Furthermore, graduation is also affected by student success and relationship with industry. Industry always need the students who have expertise in emerging technologies. The advanced computing devices enable students to gain timely knowledge and skills about emerging technologies and to be prepared for their career development after graduation. 2.   The computing devices without high-speed GPUs are hard to process high-volume image or graphic set, which results in low-resolution, large time delay, low efficiency in game development and video processing. Students taking the courses such as CSE440 Game Design, CSE520 Advanced Computer Graphics cannot gain good learning experiences with such shortcomings. With the improvement in the graphic processing capability, high-resolution and high efficient processing can be expected, which is helpful to motivate student learning, as well as promote student engagement and retention.
3.   The computing devices without high-speed GPUs cannot support certain applications involving emerging technologies such as 3D Animation, Virtual Reality, Augmented Reality, Deep Learning, and so on. For example, the U4 game engine for 3D animation requires high computing capability of GPU; The Oculus Rift VR requires a GPU card equivalent to GeForce GTX 970 or AMD Radeon R9 290 or better. Without such high-speed GPUs, a lot of emerging and popular technologies are not able to be exposed and demonstrated to students. As a result, students have no sense of how to apply these technologies and how to create a new way to learn using these technologies.

Alternate solution(s) should this project not be funded:

School of Computer Science and Engineering has no budget to cover the expense of purchasing the new workstations for the computing lab. It is also unknown yet if there is a budget to cover it in next a couple of years. If this proposal is not funded, the School of CSE has to continue to use the old workstations for instruction and student learning.

Impact(s) if this project is not funded:

As one of the largest departments at CSUSB, the enrollment of Fall 2017 of CSE is: Computer Science: 681, Computer Engineering: 395. If this project will not be funded, the School of CSE will not be able to advance its resources to support student needs and improve student learning. The current workstations are HP Z210, purchased in 2011. The OS on these workstations has updated from Windows 7, to 8, and 10. However without the update of the hardware, the performance is getting unacceptable. Teaching computing with 7 years old computers will not be considered to meet ABET criteria on " Laboratory Facilities" and "Computing Resources". It goes beyond the 5-year cycle of computer update, which is not acceptable for computer science and computer engineering instructional purposes. Now, some bottleneck courses have low enrollment rate: CSE 441 Game Programming (43% not enrollment), CSE 541 Robotics and Control (41% not enrollment), CSE 401 Contemporary Computer Architecture (50% not enrolled), CSE 516 Machine Learning (20% not enrolled). The advanced hardwares are necessary to increase the enrollment and retention. In addition, CSE students and other students enrolled as CSE minors will not be able to access and learn modern emerging technologies in IT field such as Animation, Deep Learning, Virtual Reality, Augmented Reality. Thus, students will not be competitive in marketplace. As a direct impact of the above factors, the contribution of School of CSE to the CSU 2025 Graduation Initiative will be considerably limited.

Cost: $$ (One time or recurring)

One time	Qty	Item		Cost/Unit	Total 33	Work Station with 8GB Radeon Pro 580 GPU		$1,999.00	$65,967 33	Linux Mint & Windows

10 Pro License $199.99 $6,599.67 Subtotal: $72,566.67 8% tax: $5805.33 TOTAL: $78,372.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process Outcomes: 1.   Create new course contents supported by the new equipment with advanced GPU 2.   Increase student engagement and retention for the related courses 3.   Increase the use of computing lab Student Learning Outcomes: 1.   Improve learning experiences with more advanced and powerful functions of the new equipment 2.   Access to emerging technologies 3.   Student success to graduation and career development

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

Process Outcome API's 1.   Number and quality of new instructional materials created. 2.   Improvement in student engagement and retention after applying the advanced GPU computing technology 3.   Track the utilization of new equipment and computing lab   Student Learning Outcome API's 1.   Learning experiences improvement survey. 2.   Assignments and projects related to emerging technologies in big data, deep learning, artificial intelligence, virtual reality, augmented reality, game development, etc. 3.   Track the time to graduation, the number of graduations and displacement after graduation.

Project Timeline   **Start:** 9/24/2018 12:00:00AM   **End:**   9/24/2019 12:00:00AM   **First Quarter of Student Use**   Winter 2019

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/245-364c8746227baeb68b97bbb495fe53d3_VETI_BUDGET_2018_Qingquan_Sun.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

148

| **Division** | Information Technology Services | | | | 11140 |
| | Campus Division | **James** | **Olinger** | jolinger@csusb.edu | 909-537-5470 |

Total Amount Requested for FY 2017 $60,000.00

Project Title: Campuswide Collaboration Stations

Project Abstract:

The purpose of this project is to install 20 collaboration stations around the San Bernardino and Palm Desert campuses to allow students to work on team projects together and to collaborate on studying for class tests and papers. To ensure everyone is able to contribute to a problem-solving session, we want to provide combined Audio/Visual system design tools that foster easy collaboration, such as big-screen TVs, all-in-one video conferencing solutions, and whiteboards for impromptu writing, drawing and more. The collaboration stations will each have a 50" TV screen, electronic switcher, cables, and the appropriate combination of HDMI, DisplayPort, or VGA ports in order to control the operation of the TV monitor, tables, chairs and a TV stand. ITS has dedicated funding for the tables, chairs, whiteboards and TV stands, as the VETI funding cannot provide this.   We would like to place these collaboration stations in areas in each college, PDC, the SMSU and other high traffic areas so that any student or group on campus can work together, whether at a scheduled time or on the fly, to accomplish a group goal. ITS will work with College Deans and departments on finding locations for these stations. We believe group collaboration is a vital part of student success.

Challenge(s) this project will address:

Students currently have difficulty finding a group study area in which they can share their laptop monitors on a large screen. This is important so that everyone can see what the others are talking about and looking at.

Alternate solution(s) should this project not be funded:

ITS feels that this is an important part of student success and we will continue to look for other funding sources should this project not be funded with VETI monies.

Impact(s) if this project is not funded:

 Students will have to continue to work in groups having to share their laptop monitor with other team members one-by-one.

Cost: $$ (One time or recurring)

One-time: $60,000 total for equipment for each station + $40,000 total for the tables, chairs, whiteboards and TV stands.

What are your intended Process Outcomes and/or Student Learning Outcomes?

These stations will allow students to better collaborate together in a more expedited and efficient manner, allowing for improved teamwork and improved study results.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

We will be monitoring the use of these collaboration stations and will be sending surveys to students asking for their feedback.

Project Timeline   **Start:** 7/2/2018 12:00:00AM   **End:** 9/7/2018 12:00:00AM   **First Quarter of Student Use**   Fall 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/52-3522fd7d802ff96e63465bceb7547399_VETI_BUDGET_TEMPLATE_2018.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

149

Division	Academic Affairs	College of Natural Sciences		4195996
	Campus Division	**Tomasz**	**Owerkowicz**	towerkow@csusb.edu	909-537-5312

Total Amount Requested for FY 2017 $67,000.00

Project Title: "Blood Lab" for biology, kinesiology and allied health majors

Project Abstract:

The project will support acquisition of a mobile unit for blood gas analysis and biochemical profile. This state-of-the-art equipment is used for point-of-care diagnostics in hospitals and research institutions, and offers a fast, precise and reliable profile of respiratory and ionic balance regulation in the human body â€"from just one drop of blood! The Blood Lab will be a powerful teaching tool for CSUSB students in biology, kinesiology and allied health disciplines. Students who directly measure their own physiologic parameters will end up with a stronger and deeper understanding how their body responds to various internal and external stressors. This gold standard of diagnostic technology will be incorporated into numerous teaching laboratories of biology, kinesiology and pre-nursing courses including Human Anatomy & Physiology (BIOL223&224), Human Physiology (BIOL324), Comparative Animal Physiology (BIOL424), Exercise Physiology (KINE481), Instrumentation in Exercise Science (KINE486), and Independent Research (BIOL596), before and after Q2S transformation. When not used for teaching purposes, the blood monitor unit will be used in the research laboratories of Dr Owerkowicz (BIO) and Dr Ng (KINE). Over 1000 CSUSB undergraduate and graduate students will benefit from training on the Blood Lab equipment every year. Acquisition of the Blood Lab unit will allow us to develop innovative hands-on teaching modules, above and beyond what is offered at other CSU and even UC campuses. Incorporation of blood gas and biochemistry measurements in teaching of human and exercise physiology will give our students the extra edge in health-related careers.

Challenge(s) this project will address:

Can you learn to be skilled driver simply by reading how to drive a car? Obviously not. Can you learn to be a skilled scientist simply by reading how science is done? Again, no. Only hands-on training, in a vehicle or on scientific equipment, can prepare you how to operate the machine safely and correctly. While lectures can teach students what the various signals from the dashboard mean, only practical experience with the equipment can teach them how to quickly respond to unexpected situations. One of the ways to ensure student success and prepare them for post-graduate careers is to supplement lecture material with hands-on training on actual equipment in teaching laboratories. This requires investment in cutting-edge technology. While our science classes are equipped with basic instruments, many CSUSB students miss out on training expected by future employers because of the cost of such technology. This is where VETI funding can make a huge difference, and put CSUSB above other CSU campuses in producing tech-savvy graduates with immediate job prospects. The physiology labs in the Biology and Kinesiology departments are equipped to run a limited range of experiments, but one piece of equipment that is distinctly absent is the blood gas and biochemistry analyzer. Yet measurement of blood gases (oxygen and carbon dioxide) and ions (sodium, potassium, chloride, bicarbonate, protons, lactate) is critical to our understanding of physiologic regulation and homeostatic mechanisms in the human body. Talking about these variables is often not enough; students should be able to measure them in order to see for themselves the changes occurring in blood during exercise and exposure to various environmental stressors. This will give them a deeper understanding of biochemical changes occurring in blood, which sustains our life. Our proposal requests funding for a Blood Lab unit, which will allow quick and precise measurement of blood gases and electrolytes, a gold standard in diagnostic physiologic monitoring. The unit is ADA-compliant, and can be easily operated by students with sensory and motor disabilities. It will be used in labs in a variety of Biology and Kinesiology courses focused on human (and animal) physiology. It will benefit over 1000 students, from lower-division introductory classes to advanced upper-vision electives. With an annual operating cost of just $3000 (per sensor cassette), and ability to process 1000+ samples per cassette, the cost per sample is less than $3. The operating cost (including calibration and quality check) for the next ten years is built into our proposal. Afterwards, the annual operating cost will be covered by course lab fees. By increasing depth of learning (of physiologic regulation), the Blood Lab is expected to increase student success rate in physiology-based courses, which have high enrollment, are notorious for their difficulty, suffer excessive fail rates, and often require repeating by allied health majors (e.g., Human A&P with over 450 students/year). This will improve graduation rates, and thus contribute to the meeting the Graduation Initiative 2025.

Alternate solution(s) should this project not be funded:

If you don't have a car, you have to walk. You can still get there, but it takes longer and requires greater effort. If the Blood Lab project is not funded, biology and kinesiology students will continue getting lectures on blood gas analysis and biochemistry profiles, but will not be able to do lab exercises on this portion of physiology courses.

Impact(s) if this project is not funded:

 Slower and less effective learning of physiology and exercise physiology

Cost: $$ (One time or recurring)

67000 (one time)

What are your intended Process Outcomes and/or Student Learning Outcomes?

Process outcomes: 1. students will be more enthusiastic about physiology laboratories when hands-on training on the Blood Lab is incorporated into the curriculum. SLO's: 2. students will understand the power and limits of blood gas & electrolyte panel 3. students will better comprehend respiratory gas partial pressures in humans and other animals 4. students will better comprehend ion regulation in blood of humans and other animals 5. students will develop an intuitive grasp of the changes in blood gas and electrolyte profiles during exercise 6. student success rate in Biology and Kinesiology courses will improve when Blood Lab exercises are integrated in their respective curricula.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1. level of student enthusiasm will be assessed using anonymous questionnaires, and compared for lab sections with and without Blood Lab training. We expect higher level of enthusiasm in the former. Outcomes 2-5 will be assessed individually using appropriately phrased questions (pertinent to each SLO), interspersed between regular questions in lab and lecture exams. We predict student performance to show significant improvement once the Blood Lab unit is up and running. 6. Student pass rate for each Biology and Kinesiology courses using Blood Lab equipment will be compared with pass rates in the last three years. Considering that the course material and instructors have remained the same, a direct pre/post-implementation comparison is possible. In each course, we predict student pass rate to show a statistically significant increase after implementation of new technology. This should be particularly noticeable in large service courses, such as Human A&P.

Project Timeline   **Start:** 9/1/2018 12:00:00AM   **End:** 9/1/2028 12:00:00AM   **First Quarter of Student Use**   Winter 2019

Statements of support by collaborating organization(s) or department(s) (if applicable)

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-3801bd94b4fb27179fc8bbf75537495b_Bio_dept_letter.pdf

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/196-8a0fa67e364cdebd19b4f4771a67f4de_AMSA_letter_for_Blood_Lab.pdf

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-e9dcbba23b38f3b0b0af2e71baba0676_Owerkowicz_VETI_budget.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

150

Division	Academic Affairs	College of Natural Sciences
	Campus Division	**Mary** **Schultz** mschultz@csusb.edu 909-537-5380

359150

Total Amount Requested for FY 2017 $50,000.00

Project Title: The Use of ATI Products to Improve and Sustain Test Scores in an Undergraduate Nursing Major

Project Abstract:

Use of a digital tools such as "Pharmacology Made Easy" and "Dosage Calculation: from Assessment Technologies Institute (ATI) has been known to improve scores on both teacher-made tests and standardized exams in the undergraduate nursing student population. A set of modules with branching logic, case studies and medication math exercises , assists users with the critical thinking skills necessary in the practice of the applied science of nursing. Thought to improve selected student outcomes such as better clinical performance and improved test scores, use of the tool in Medical-Surgical nursing and Health Assessment core courses has met with student and faculty satisfaction, alike. The student user is likely use the tool to its fullest throughout the term, the nursing program and post-graduation in preparation for the entry-into-practice exam, NCLEX. When incorporated into a set of Medical-Surgical nursing courses (5 in all), these selected outcomes have been known to improve dramatically

Challenge(s) this project will address:

In the CSUSB Department of Nursing (DON), entry-into-practice exam scores administered by the state of California have hovered near 80% for over 10 years, with recent improvevment into the 90% range in the past 1-2 years. . Considered the minimally acceptable score by professional societies, it is noteworthy that comparable departments (other nursing schools within the CSU) tend to have yearly scores nearing 100% in the same time period.   Use of tools from third-party vendors such as ATI has resulted in clear process and outcome improvement in the form of improved test scores on both teacher-made tests and NCLEX alike.

Alternate solution(s) should this project not be funded:

The alternate solution is to continue to employ the usual teaching processes which tend to be lecture-dependent with little active learning strategym

Impact(s) if this project is not funded:

 Risk dropping entry--into-practice (NCLEX) scores, reputation of school locally and standing with the California Board of Nursing (BRN).

Cost: $$ (One time or recurring)

$50,000 one time.

What are your intended Process Outcomes and/or Student Learning Outcomes?

Critical thinking skills, as a process, will improve, thus improving all three associated outcomes.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

NCLEX Score sustained support Learning Outcome for same: sustained NCLEX scores at or above 80%. Scores on teacher made tests will raise and be sustained supporting the second Learning Outcomme on teacher made tests. Objective measure of head-to-toe assessment competencies will measureably better in the simulated (lab) environment.

Project Timeline   **Start:** 9/15/2018 12:00:00AM   **End:** 6/15/2021 12:00:00AM   **First Quarter of Student Use**   Fall, 2018

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/179-eecab1d59e325367da32cc2913208adf_VETI_BUDGET_TEMPLATE.xls

VITAL/EXPANDED TECHNOLOGIES INITIATIVE FY 2018-2019 PROPOSALS

Proposal ID:

151

<u>Division</u>	Academic Affairs	College of Arts and Letters		3087200
	Campus Division	**Bradford**	**Owen**	bowen@csusb.edu	(909)537-7379

Total Amount Requested for FY 2017   **$28,994.22**

Project Title: VR-enabled classroom for teaching 21st century skills

Project Abstract:

We are seeking support to add immersive technology (XR) capabilities to the UH 043 in order to enable teaching with XR content. Currently, the production of VR content is just starting on campus. VR is a new immersive medium. Essentially, users navigate via headsets a digital interactive environment. The experience creates the sensation of physical presence: users experience the digital environment as if it were real. Thus, the medium offers a lot of promise for creating highly interactive, immersive, and realistic learning experiences. Although research demonstrates that VR-enabled content increases learning, we currently do not have classroom where instructors could actually use this type of content. Additionally, we don't have classrooms where the production of VR and XR-enabled content could be taught. This proposal seeks to remedy this deficiency by integrating XR equipment into UH 043 so that students could engage in VR production in the context of a classroom and experience instructional VR content as well.

Challenge(s) this project will address:

1. Integration of XR-able equipment into the classroom;   2. Increasing graduation and retention rates by teaching students better;   3. Providing students with updated, cutting-edge skills that makes them more employable.

Alternate solution(s) should this project not be funded:

Last year, ATI demonstrated that it is possible to produce the prototype of a VR learning module that is accessible, pedagogically sound, and, based on student feedback, highly engaging. However, the campus needs to provide classrooms where students can actually experience this kind of content. If the project is not funded, students could visit ATI in small groups to use their equipment.

Impact(s) if this project is not funded:

1. Greatly diminished ability to teach with VR;   2. Only small groups of students could learn VR production skills;   3. We cannot create workflows that enable classroom of students to engage in project-based learning leading to the production of VR content;   4. We cannot study the effect of immersive technologies on learning.

What are your intended Process Outcomes and/or Student Learning Outcomes?

2.1. Create new ways to teach and learn;   2.2. Produce experiences that transcend language barriers and enhance student access; 2.3. Improve experiential learning by simulating experiences unavailable by other means; 2.4. Acquire skills for producing content in the VR medium.

Assessment Plan and Key Performance Indicators (KPI) (Measurable/Verifiable)

1.2 Number and quality of VR-enhanced instructional materials created in the context of a course 1.3 Number of CAL courses designed around VR production skills Student learning KPI's: 2.1. Improvement in student engagement with instructional content. 2.2. Mastery of 21st century skills

Project Timeline   **Start:** 8/1/2018 12:00:00AM   **End:** 6/11/2019 12:00:00AM   **First Quarter of Student Use**   Fall 2019

Budget:

http://surveygizmoresponseuploads.s3.amazonaws.com/fileuploads/196359/4065827/253-bd18329fdfca10d81c77906a3d00a0bf_Comm_Studies_VETI_2018_Budget.xlsx