School of Health, Kinesiology, Science & Math

Mission:
The School of Health, Kinesiology, Science and Mathematics provides academic and career an technical education courses for students pursuing an AA/AS Degrees, certificate, transfer to a four-year college or career training and certification in one of many health care fields.

Alignment to college-wide goals:
All goals in the School of Health, Science and Mathematics are related to the college goals and the Educational Master Plan 2011-2016 including the President’s 24 Month Agenda 2012-14 and the Board of Trustees’ goals for 2013-14 and 2014-15. Key goals found in the School are student success, transfer and a focus on career and technical education. Each goal in this plan is aligned with overarching institutional goals - learning, equity, organizational development, teamwork and infrastructure. Key school goals include the assessment of student learning outcomes, innovative and up-to-date curriculum, improving student success, providing access to high-demand courses, pathways to promote student success, career path training, and the integration of technology into programs and departments.

How does School support Dept/ Program goals?:
The Dean communicates with the Department Heads regularly to help support departmental and program goals. Department head meetings occur each semester and on an as-needed basis. The Dean meets with department heads individually on a regular basis and is accessible. Throughout the year, communication with the Dean results in regular advocacy for programmatic improvements, increased sections in critical areas, requested equipment funds, faculty positions through the hiring priorities process, support for curricular changes, success center support and supervision, grant acquisition/oversight and regular communication within the School. With the addition of Kinesiology, the Dean has reached out to that Department and has been attended critical meetings. Most recently, the Departments Heads and faculty in mathematics, life science and allied health have met often to design new building facilities for the V building (Math and Science) and the D-building remodel (expansion of wet labs for sciences). The C-building broke ground on its remodel in October 2014 and Nursing and Allied Health area remains in “swing space.” In the past year, the School focused on hiring new faculty but also kept innovative by innovation and student success by continuing and improving the “workshop style” instruction in mathematics, developing math pathways (new pathways for algebra and statistics pre-requisites), expanding course offerings at PCC, continuing the nursing “code green” inter- and summer-session success programs and creating new courses such home health in vocational nursing. The school also further integrated SLO’s into courses and created and implemented assessment plans, continued to integrate simulation into the nursing and allied health area and made significant changes in math and science part-time faculty, among other things to improve student success. The area has strategically used funding from the School budget to meet School needs and support innovation, professional development and needed equipment and supplies (with the support of past and present Vice Presidents). The life science, math and health science programs promoted student communication by continuing to expand and enhancing web information and the Kinesiology area created a number of very clear pathways for majors and put a lot of time into re-vamping curriculum to meet the needs of today’s students. School faculty has integrated technology throughout the curriculum where possible and has been involved in hiring of new faculty and the design of new instructional space. Of particular note is the use of Aleks software to improve student success rates in algebra. Nursing, life science and mathematics continues to use directed learning activities and supplemental instruction in their courses. The School has actively participated in the Promise Pathways Initiative and recently institutionalized math workshop style classes in all terms. Enrollment management efforts included sustaining the same level of services for students despite multiple retirements in 2013/14. This caused department heads to have to really “pound the pavement” and look for quality adjunct faculty. All of these efforts align with the goals that are listed at the end of this document.

Once again, facilities improvement and expansion were a large part of the efforts in the area this year. The math and nursing and allied health departments have seen construction spring into action and the buildings are going up and are scheduled to be finished in 2015/16. These beautiful new facilities were designed with faculty and staff input and will provide much needed classroom space and technology for instruction. During this last year, the math building was modified from the original plan to support more technology in the classrooms (two more laptop compatible computer classrooms and charging stations for seven classrooms). The Dean and Department head recently toured the building that is almost complete to witness the design turning into a building. This construction will lay the foundation for much improved facilities for this school for the next 20 years. The PCC science labs opened and include life and physical science courses that had not been previously offered at PCC (Biology 41, a botany course, geology, chemistry lectures, etc.) A new state-of-the-art fitness facility has been added at PCC and it is very popular with the students. It provides a great training ground for the Kinesiology majors as well as serves the general student population. In addition, the Vocational Nursing program has two new classrooms at the PCC campus and the EMT courses have a designated classroom and new equipment. The expansion of offerings will continue at PCC in 2014. In 2014/15, the School will look to improve the fitness areas and classrooms at LAC.

The School office supports operational and student success by processing all school business and communications in a timely matter, providing ongoing coordination for school business, meetings and events and ensuring that all departments within the School are provided with current and accurate information that supports operational and student success throughout the School. The support staff also works directly with the students to provide the information about programs and services, including admission to the nursing and allied health programs. The Health, Kinesiology, Science and Math area added two full-time permanent positions to support Department Heads, a nursing and allied health coordinator (in lieu of a academic administrative assistant) and a permanent part-time Administrative Assistant (both became official in Fall 2014). In addition, the Kinesiology area added a permanent
part-time .45% Administrative Assistant but sorely needs additional clerical support to sustain such a large department.

Summary of Access, Efficiency and Effectiveness:
All of this information is available on the web by department. For enrollment and WSCH and FTE information, please see the college web/data warehouse. This report will include an attached documents of the web page listed at the end of this section. For information by department about issues and improvement as it relates to enrollment, please see individual department plans.

General information about the School indicates that the overall number of sections has been impacted this year because of the addition of the Kinesiology Department. For that reason, this School Plan will include this year’s numbers that include Kinesiology and the previous years without it.

Prior to Kinesiology joining the School (July 1, 2014) - the number of sections for the area has held steady for 2011, 876, in 2012, 880 and in 2013, 876. Overall enrollment in the School peaked at 36,740 in 2009/10 and decreased to 33,053 in 2011/12 and then climbed again in 2012/13 to 35,592. The overall success rate has held steady at 59% in 2010 and 60% in 2011 and 2012. Student persistence has climbed from 78% in 2010/11 to 82% in 2012/13.

This year, and with the data that adds Kinesiology, the following numbers apply: the number of sections for the area has held steady for 2011/12, 1329, in 2012/13, 1162 and in 2013/14, 1283. Overall enrollment in the School in 2011/12 was 48,296 and then decreased slightly in 2012/13 to 46,487 and in 2013/14 it leveled out at 46,675. The overall success rate has held steady at 66% in 2011/12 and 66% in 2012/13 and 65% in 2013/14. Student persistence has climbed from 82% in 2011/12 to 85% in 2013/14.

For specific details about enrollment, efficiency and success, please visit: http://www.lbcc.edu/ProgramReview/documents/Program_Data_2014/HSKM_School_2014.pdf

Summary of Enrollment Management Efforts:
During another challenging budget year, enrollment management has been very effective in this area. Sections have been added to the Pacific Coast Campus and the new faculty has enabled us to expand offerings in math and science in Fall 2014. The new hires have helped stabilize the School and have provided some relief to the Department Heads who have had to scramble to find part-time instructors to fill the classes. Throughout this process, the Dean continues to work closely with the Department Heads about the courses and sections offered each semester. Administration has asked the Dean and Department Heads to strategically increase enrollment. Both have done a great job of determining the student needs within the School and shifting resources where appropriate. This year, enrollment has been flat campus-wide (and mostly State-wide). The School Dean is continually working with other Deans using teamwork to allocate resources for courses that are in the highest demand across the college. Where there was opportunity for student demand to be met, sections were offered or shifted, including a summer and winter session that is/was very robust. As mentioned earlier, there was also a concerted effort to provide courses/sections at the Pacific Coast Campus, which will be further expanded in spring 2015. The School of Health, Science and Math consistently has high enrollment in math and sciences and many courses have a large waitlist. It is recommended that the Vice President of Academic Affairs add funding to increase sections, where possible, to meet the high student demand.

As mentioned above, the ADN program has reduced the enrollment to meet faculty/student requirements for accreditation and because the move to swing space was not able to accommodate a cohort of 60. The plan is to increase back to a cohort of 60 when the area moves into the newly renovated building in 2015/16. The ADN program has created BSN collaborative track programs to CSULB, CSUF and CSULA and will continue to steer students into these programs as many hospitals have shifted to hiring B.S.N. students over A.D.N. students. This effort has established a direct pathway for the ADN students with guaranteed admission to the BSN programs and complete their BSN in one year after receiving their ADN. The collaborative at CSULA allows our students to begin work on their BSN over the summer while they complete their ADN here. Other collaboratives in development are with CSUDH and Vanguard.

The program will continue to provide current students with a bridge to the local universities and is working toward establishing guaranteed admission. One challenge is that a major hospital is attempting to “pull the plug” on A.D.N. student clinical rotations. This will have to be addressed by the Program Director, the Department Head and Senior Administrators on campus.

Evidence of Academic Quality:
The School of Health, Kinesiology Science and Math has completed all course program plan/program reviews. Course reviews and SLO's are 100% completed. The Assessment plans are 100% completed and data collection has occurred for every department in the fall of 2014. The math department continues to support the highly coveted and successful alternative placement model. Research demonstrates that students are being placed in higher level courses using the multiple measures and that they are succeeding on par and sometimes better than the assessment test only method. In the future, the math department will challenge the Chancellor’s Office if it tries to get involved with a standardized testing process that does not include multiple measures. The School continues to support the college’s seamless education efforts with LBUSD and the CSU’s. Collaborative efforts have included continuing tours of the nursing and allied health areas and the Dean and other faculty sit on the advisory committee for McBride High School, Jordan High School, and other SLC’s at LBUSD. The School faculty participate on key academic committees, the promise pathways effort, the Student Success Committee and are active with shared governance. When the new faculty members are able to join the campus community and committees after their first semester/year, there will be many new faces added to the LBCC Committees throughout the campus. Specific efforts include the workshop style math classes, creating new courses to meet the demands in math (accelerated math, collapsing algebra 110/130 into one six-unit course, developing a CTE math course and a prerequisite course to statistics is in the works (to be completed Fall 2014). Last year in May 2013, the college had its first ever “Science Night” at LBCC and had the “Second Annual Science Night” in Spring 2014. Both nights were extremely successful and involved the students, faculty from other departments, counselors and community members. Another significant development this year is that All courses that have
had TBA have been modified to be positive attendance and each area reports the necessary information and reporting requirements, including faculty training for adjunct (if necessary). Last year, all of the nursing courses were converted to positive attendance to match compliance mandates. The School has ten new positions that were hired in Fall of 2014 and the Mathematics Department filled the position of Math Instructional Specialist, a position that was challenging because it was hard to find the right qualified candidate. The School just hired four new math faculty members to help with the extensive efforts in the math department such as a student centered schedule, accelerated learning, software to supplement math instruction and the implementation of the math pathway to include a non-science/math major pathway to transfer-level statistics.

The College hired seven new physical science faculty members in spring 2014 which will bring instructional consistency to the foundation physical science courses and allow for the modernization of more advanced science courses. Evaluation of adjunct faculty continued on schedule, with an eye to retain the best instructors.

The HLED/Kinesiology Department has members on several college-wide academic committees like the ASLO subcommittee, ADGE subcommittee, Curriculum Committee, Budget Advisory Committee, and the Facilities Advisory Committee. The Department Chair is also the Academic Senate President. Members of the department belong to AKA—the American Kinesiology Association—-we were the first community college to join this national group; and the CCCPEK-the California Community College Physical Education and Kinesiology organization.

The Kinesiology area hired one new Exercise Science faculty member in the 14-15 year; the first full-time hire for this area since 2006.

**Identify programs/ activities requiring attention:**

Nursing Program – the Associate Degree Nursing Program is seeing a decline in the NCLEX pass rate for the first time in many years. Traditionally the ADN Program has maintained a NCLEX-RN pass rate well above 92%. At one time, it was 98.2%, the 2nd highest pass rate among all community colleges in the state of California. Analysis of possible contributing factors is underway. There has been a slight decrease in the attrition in part due to extra activities (tutoring, seminars, workshops, CARP Packs) put on by the faculty. Efforts to reduce the attrition rate continue and are being supported by various grants. Student success activities are critical for the nursing students and the department is making an effort to integrate activities into the curriculum. Much energy has gone into specific success efforts and the program has been successful in transitioning many VN students to success in the RN program. In previous years, this was not the case. Efforts to continue to build this bridge and strengthen the “transition” course are critical. Simulation technology is critical for student success. It is no longer innovative in the field and it has transitioned to necessary. It requires critical staff support, even beyond our current Simulation Coordinator. In addition, maintenance will become an issue as the high and mid-fidelity mannequin’s age. A replacement plan and strategy must be put in place through the Total Cost of Ownership effort. Student evaluation of simulation use in the campus lab courses were positive and are thought to have contributed to the declining attrition. Continuing evaluation of the effectiveness of simulation is on-going.

VN program has addressed the Academic Quality issue by requiring several pre-requisite courses prior to program acceptance. This includes completion of Nursing Assistant Class (VN 215) as well as Science, Pharmacology, Math, Reading and Study Skills. Ninety percent of the accepted students complete the course of study. An emerging field is home health and the program is focusing on adding this as a part of the courses offered in Fall 2014.

Allied Health – The Medical Assistant Program added the program prerequisite of Reading 882. This has increased student’s preparedness. Data is being collected to see how it has impacted Program completion. In Allied Health, supplemental learning has been added to selected courses and the department will review how well it works before expanding the strategy to additional courses. Success and retention rates have increased across all ethnicities and genders. Steps to increase the first time pass rate on the ARRT have been implemented. Courses are being offered to High School students to ease their transition to College course work and to help them succeed in Healthcare. In addition, the DMI and MA programs have instituted a dress code for the students.

Kinesiology – The HLED/Kinesiology area has worked very hard to completely re-work the academic program. In transition from Physical Education to Kinesiology, the area has written more than 70 new, modified or reactivated courses, and inactivated another 60. The area has done a complete shift from being a department for athletes to a department for Kinesiology majors. The Professional Preparation courses have been completely changed are in alignment with all CSUs. The area of Kinesiology made the commitment to offer no courses that didn’t articulate. Currently all courses articulate and are compliant with C-ID. The ADT in Kinesiology has been in effect for a year and the area is beginning to see the results in terms of graduates. Last year 23 students graduated with the ADT in Kinesiology. While 3 years ago there were no identifiable Physical Education majors, in summer 2014, the area had 368 identified, currently enrolled student majors.

The area of Health has been teaching the same 4 courses for many, many years. Currently the area is working on creating 3 new courses that will put them in alignment for the much anticipated TMC in Public Health. The area is currently strategizing how to best align to prepare for submission of this TMC as soon as it is released. Current coursework in Public Health will be ready for the 16-17 academic year.

Life Science - the life science area has taken strides to utilize the success center model, implementing supplemental learning activities in Physiology 1 and Anatomy 41. More courses are being reviewed for this model and there has been discussion about the lab hours and components within the labs and updated/upgrading various assignments. The department also recognizes the important role of supplemental instruction (SI) in science course student success. For Physiology 1, Success Center workshops were touted as a replacement for SI, but actually more consistent support and contact is needed for this course. Workshops and SI should both be offered, and indeed, they complement each other. The department wishes to increase the number of additional Life Science class sections supported with supplemental instruction as this has proven to be an effective method to increase student success, despite the cost. Because of budget cuts and lack of staff, the Life Science Learning Center was closed two years ago. During each of the past five semesters, the Life Science Learning Center served an average of 666 students, who made 2974 visits and spent 3500 hours in the center. Students consistently asked for an extension of staffing to support opening on weekday evenings and on Saturdays. This Center was used by students enrolled in Biology, Anatomy, Physiology, and Health Education courses. We fear that the continued closure has significantly impacted success and retention for “gatekeeper” courses such as Anatomy 1, as well as for our other offerings. For a minimal amount of funding, this Center could re-open and then
Physical Science - The Physical Science Department again recommends adding supplemental learning activities which would not reduce the number of lecture and laboratory hours for our courses. The department supports the implementation of a Science Success Center and in the meantime, supports the integration of a science success into the multi-discipline success centers. The majority of the department’s faculty prefers SI – Supplemental Instruction. In past pilots, where district and grant funding has been available, this has been a successful tool in those classes where funding allowed SI to be provided. On average, there was a 5 to 10% increase in average class grades, even though the program is entirely voluntary for the students. There are plans to discuss and work to implement a STEM honors program once the replacement/new faculty are on board. After successful use of SI in multiple physical science courses in the fall and spring terms, the resignation of the College’s SI/tutoring coordinator in August ’14 brought Supplemental Instruction to a halt. The Physical Science faculty is anxious that the SI program resume in the ’14-’15 academic year. The department’s faculty look forward to a science success center that provides space for SI meetings and workshops by SI leaders.

The physical sciences continue to see few students graduate with degrees. Only a few of the students enrolled in our classes list one of the physical sciences as their major. However, with designated counselors for the School and discipline, we hope to have more student recruitment and advise more students to declare science as a major and obtain an AA/AS before transferring. The collaborative efforts with CSU’s and local universities should continue to develop pathways for science students (this is a department priority). For example, most of the 25 to 30 students who pass CHEM 1B each semester have fulfilled the requirements to obtain an AA or AS degree in Physical Science, but few of them bother to complete the paperwork for a degree. However, it should be noted that most students who are taking our science classes are doing so to fulfill transfer requirements and do not see obtaining an AA or AS degree as an important step in the process. It is critical that science faculty and counselors alike encourage them to apply for and complete the degree. An additional and perhaps better measure of the success of the program would be to evaluate the number of students taking several science classes who successfully transfer. In fact, all students who transfer to a UC or CSU must pass at least one Physical Science class according to the IGETC Plans B and C.

Geography courses and faculty were moved into the Physical Science department by a former Vice President of Academic Affairs. The transfer has brought some benefits for geography faculty using the department’s equipment, but several problems have resulted from the move. Student enrollment in Geography sections has been precarious; several sections have been cancelled since the transfer. Geography courses receive social science credit for transfer and must compete for students with other popular social science disciplines (which are scheduled by the Social Science department head). The classroom allocated to Geography has remained under the Social Science department for scheduling priority. These issues will be brought forth in the upcoming review of the restructuring of departments.

The department now offers two AS-T degrees; Geology (approved 2013) and Geography (approved November, 2014) after the area created a lab course in 2013/14. Recent rise in the minimum GPA for transfer to CSULB for physical and life science majors should heighten student interest in AS-T degrees. The department will file paperwork to offer a Chemistry AS-T degree once the curriculum is finalized and C-ID issues are resolved. The department is also supporting the college’s introduction of an AS-T degree in Elementary Education by writing a new course (Survey of Physics and Chemistry for Teachers) to fulfill TMC requirements.

Math – the Math Department continues to work on student success rates as its top priority. Through the aggressive use of the Math Success Center, the proactive hiring of top adjunct instructor candidates, and the exploration of innovative delivery methodologies in the classroom success rates have enjoyed a modest improvement in certain courses. Most instructors – adjunct as well as tenured – now use the SLA requirements in Math 110, 130 and 815 in a more prescriptive manner by assigning workshops and DLAs with due dates. Many tenured faculty members recognize that the hiring process is one of the best ways not only to ensure the current quality of instruction but to improve it as well. Numerous rounds of part-time interviews continue to yield a greater wealth of talent amongst the adjunct faculty pool, to the benefit of our students. This effort will continue as a standard practice in the department every semester. This effort, coupled with a thorough evaluation process that is driven by full-time faculty, has been determined to make a large impact on the quality of instruction in the Math Department. The hiring of more new full-time faculty will also assist the Department with innovative success strategies and initiatives as well as provide more consistent instruction for the students. Through experimentation with scheduling it has been found that students in higher-level math classes are best served if their classes are scheduled to meet at least twice per week. The department will continue to schedule some of its remedial classes to meet more than twice per week in the hopes of increasing student success in that area. For many years the department has offered a “one size fits all” math educational pathway, meaning that all remedial students must travel through Math 815-110-130 sequence to get to a college-level math class. The department has developed and implemented alternative pathways this Fall (Math 115 and 140). A StatPath course is also currently in discussion. The department has also created a relationship with department of Institutional Effectiveness that will routinely dialogue regarding the student success numbers, make assessments, and then make recommendations as to future math department policies. With all of the innovation that is occurring such as the alternative assessment plan, the math workshop model courses, improvements in on-line courses/support and the new “mathways,” it is imperative that the student success data be an integral part of the discussion. Finally, the department is optimistic about the increase in skilled students wishing to enroll in calculus and engineering classes, and has responded by scheduling these classes more strategically in order to both meet these demands and to ensure that these classes are not cancelled due to low enrollment. This collaborative effort among Department Heads and faculty (both new and seasoned) is helping to better serve students. The department is also looking forward to working with other departments on campus via the newly awarded Engineering Pathways grant.

The student success rate in mathematics is consistently below 40% in math 110 (first course in algebra), below 42% in math 130 (intermediate algebra) and below 51% in math 45 (College Math). For the 16-week semester, the department has scheduled many more classes – remedial and transferable – that meet more than twice a week, in the belief that more face-to-face contact during the week will increase retention and success rates. For more uniformity of instruction, particularly amongst the adjunct faculty, the department is currently upgrading the math website to provide much needed, accessible, and up-to-date information for all math faculty. Finally, the department has been discussing the implementation of its own in-house SLOs that will be analyzed for feedback and will also bolster the uniformity of instruction in all courses. For this effort and research, resources from other areas of campus may be requested. Math faculty members have begun a dialogue on how to best overhaul the course offering to better serve their students and there will be on-going discussion about the required units and the possibility of a lab or SLA requirement. The new mathways effort should go far to provide better options for students. Further implementation of the resources in the Math Success Center may begin to include software-based practice sessions and prescriptive MSC assignments. As mentioned in the Department Plan and throughout this plan, a new faculty position that will focus on engineering will also help to expand and improve offerings in the area and better coordinate with other disciplines. The engineering efforts will reach out not only campus-wide but also to high school and university counterparts for assistance and partnerships.
Curriculum & Instruction: Emerging needs:

Emerging Needs identified by departments include:

Associate Degree Nursing: In addition to the previous major curriculum revision implemented in 2012, there is an urgent need of the adaption of Quality and Safety in Educating Nurses (QSEN) into the curriculum as it is now a BRN requirement. Nursing programs are structuring their curriculum based on QSEN competencies. These changes will provide curriculum currency in nursing education. Faculty are needed to make these curricular changes. Attrition and student success is a major concern. Simulation allows the students to practice patient scenarios and problem solve in a safe environment. Implementation of simulation in the curriculum has been bolstered by the District’s willingness to support or institutionalize the Simulation Coordinator position. It is now part of the regular District budget. Other on-going strategies to improve student success and reduce attrition include incorporating a Comprehensive Assessment and Remediation Program (CARP), nursing graduate tutors, and creating several pre-semester nursing seminars called “Code Green.” These efforts are currently supported by grant funds.

Licensed Vocational Nursing: The LVN program’s two new classrooms at PCC have provided excellent classroom space. The students and faculty continue to be very happy with the new instructional space. The program is interested in expanding into home health, an industry need, and has begun making the necessary modifications and additions to the curriculum. In addition, the program needs to continue to integrate the simulated hospital room and technology into the curriculum. Continuing efforts include a better transition from the VN to RN programs. This will result in more qualified students and a very diverse student population (many of whom live and work near the Pacific Coast Campus). The VN program has embraced and supported the college success effort by continuing with directed learning activities (SLA’s) to several pre-requisite courses and by coordinating with the Multi-Disciplinary Success Centers. Other areas within the curriculum include QSEN competencies, simulation in all courses, and preparing to meet changes with the Affordable Care Act by seeking out emerging, cost effective healthcare delivery systems/facilities for the new role expected of Vocational Nursing.

Allied Health: This program contains imaging, Medical Assistant and the Emergency Medical Technician (EMT) program. The Computer Tomography CT Program continues and is very popular amongst local hospital staff (it was industry advisory committee recommended). Industry has responded well showing support and providing clinical sites for the program (20 spots as of 1/2014). In addition, they are referring employees to participate in the CT program that is the only community college program in the State. The funding is a departmental reallocation of resources and the MRI program is offered every other year in a rotation with the CT program. The Department recently hired two new full-time faculty members to cover the two retirements in Medical Assisting (faculty member retired three years ago) and DMI (retired two years ago). New graduates in these fields are finding jobs and they pay very well. The demand is currently masked due to the economy with only about 60-70 percent of the graduates finding jobs immediately. However, a starting level DMI radiologic technologist makes upwards of $70,000 per year. The moved to swing space in 2013 and is doing lab work at the local hospitals to save the college funds. It is forecasted that there is still a shortage state and nation-wide in these fields. This remains a very viable and popular area with a 3 year waitlist for the DMI program and more applicants than spots each year for the Medical Assistant Program.

The area offered one AB955 course in winter 2013/14 (phlebotomy) and it filled. Since then, the very popular phlebotomy course has been offered each winter and summer session.

Kinesiology: The Kinesiology faculty have 3 distinct programs of study:

Kinesiology: ADT
Kinesiology: Teaching
Kinesiology: Recreation

As mentioned, the faculty have worked diligently to update all curriculum. The area now wants to venture into CTE program in the area of Personal Training and Massage Therapy. Currently a Personal Training Certificate has been created and will be ready for the 2015-2016 academic year.

Massage Therapy courses have been written (to provide preparation for state certification) and are currently in the approval process. A certificate will be formulated around these courses. The area is in the process of developing advisory committees and getting regional CTE approval for both certificates.

The area has a plan to increase and strengthen the offerings in the KINA (Kinesiology-Adapted) area. Currently only 1 for credit class exists and no non-credit courses. The advent of new legislation, in the form of AB 86 may provide opportunity and funding for the area to increase curriculum and course offerings.

The HLED faculty is busy working on curriculum for Public Health as we feel that there is a great need for Public Health majors. Once the “Intro to Public Health” course is written and the ADT for Public Health created, this area will be able to begin to identify majors and design special programming for them.

Physical Science: Many staffing needs are being addressed in the Physical Sciences. The main concern has been answered with an approval to hire seven new instructors (four replacement) in this area – Astronomy, Physics, Chemistry, Chemistry/Health Occupations and Geology. Specifically, the department hired seven new physical science faculty members for Fall 2014; two instructors in Astronomy, three in Chemistry, and one each in Geology and Physics. The hiring of these seven has brought huge benefits and interesting challenges for the department. The tenure review process for the new faculty is hectic with only eight tenured faculty members in the department to populate the committees. The new instructors are bringing instructional consistency, writing new courses, they are becoming the lead instructors in courses that lacked a leader for years and are they modernizing many of the lab experiments. One additional challenge arose when one of the new instructors resigned (effective the end of the Spring ’15 term). The department has been granted a hire to replace this resignation.
Supplies are always and issue and it is imperative that the college maintain adequate supplies and equipment for the physical sciences. Enrollment increases of 20+% in Chemistry and 15% in Physics brought more instructional supply money to the department. The alignment of supply budgets with enrollment increases is a welcome development for the department. However, a complete chemical refresh will be necessary in 2015 and could cost upwards of $20,000.

The winter intersession has proven a conundrum for the department. The physical science courses with the largest wait lists cannot be offered during winter intersession, as they are high unit courses. The department will explore offering special topics or field trip courses during future winter intersessions.

The area offered two AB955 course in winter 2013/14 (Geology 40 and Environmental Science). As enrollment is down, the School has not been asked to continue offering AB955 courses in 2014 and does not anticipate offering them in 2015.

Of concern is making sure that we have technical support and the appropriate service warranty for the planetarium projector. Astronomy is a very popular class and is always fully enrolled with double sections. In addition, the college’s planetarium makes this program a model program. To support student demand, we could be offering at least 4 additional astronomy double sections each semester. Ideally the department should hire one part time equipment and lab technician to support the planetarium and help navigate programming and technical issues.

The department hired a replacement person in Geology and the efforts to continue at the Pacific Coast Campus will continue. However, this will decrease the number of full time geology faculty from 4 (several years ago) to two for the fall of 2014. We have not been able to offer many of our more specialized geology courses, because the faculty members have full schedules teaching only the high demand basic course. The Geography area will continue to be ready to offer more sections at PCC to meet student demand.

Life Science: Concerns include an insufficient budget for supplies, and field trips, and the difficulty recruiting adequately qualified part-time faculty.

As a result of hiring a new general biologist in Spring 2014, the department is able to offer BIO 11 (Environmental Problems of Man) and BIO 5 (Plant Biology) on a regular basis at PCC and LAC. The department is still understaffed and needs an additional faculty member to teach the high demand ANAT 10 courses as well as BIO 60, and BIO 41 courses. An additional faculty member is needed to teach newly developed courses as part of the emerging Biology Transfer Degree curriculum. Increased class meeting times during a 16 week semester has put strain on already limited classroom space; the life science department needs some additional laboratory and lecture classrooms (part of the D-building remodel). The closure of the Life Science Learning Center has affected almost all of our courses. Resumption of SI for Physiology is needed as part of an effort to increase student success in this difficult course that is a foundation for further studies in Nursing and other health careers. If the college could invest in SI for sciences for other courses, the faculty feel that it would have a positive impact on student success.

Math Department: Due to retirements over the last several years and a full-time faculty member reassigned to the Math Success Center, the Mathematics Department continues to take on an ever growing number of students with less full-time faculty when compared to FY2005-2006. This reduction in full-time faculty continues to be a challenge and the department has to employ over 70 part-time instructors each semester to meet student demand. Even with added sections staffed by new part-time faculty, both math 110 and math 130 (First Course in Algebra) and (Intermediate Algebra) are in the top ten wait-listed courses on campus each semester. Fortunately, the District and the College Hiring Priorities Committee has approved hiring three new faculty and two will be starting in spring 2014 and two will begin in fall 2014. Two faculty from the mathematics area have been approved for stipends in 2014 and they are working on technology delivery for developmental math courses and accelerated courses. This is in conjunction with California State University at Northridge (CSUN). Continued efforts to collaborate with CSULB have continued with the Departments sharing information and courses outcomes during the Promise Pathways Symposiums.

The fact that the math department has been operating in “crisis” mode due to retirements and the recent lack of hiring of full-time employees – causing most of our classes to be taught by adjunct faculty – has spurred on the current hiring rush in which the department has been approved to hire three new tenure-track faculty members this year. Although insufficient to attain an optimal ratio of full- to part-time instructor course offerings, it is a very good start, and one that the department will proactively pursue by moving forward the hiring process at a brisk pace. The staff support for this very large department is insufficient, however, causing the department to work very inefficiently. This has caused the department to miss a number of deadlines in the past and to impede progress in its innovation efforts by requiring its members and the department head to attend to many clerical tasks that would normally be given over to support staff. This has led to the hiring of a 10-month AA staff member whose main task will be to support the Math department in its day-to-day operations (Fall 2014). This position may still need to be 12 months as some of the critical deadlines occur in January and July (when the current position is not here). There have been other alternative solutions, one that has gained some traction recently is the creation of an Assistant Department Head position that would take on some of the more time-intensive duties of the Department Head position. This seems reasonable based on the fact that the Math Department is the largest department on campus. Classrooms, as always, are at a premium, and the department looks forward to working creatively with Academic Services and with other departments in order to ensure that high-demand math classes that need to spill over into other buildings are found a home. The move to the new building in Fall 2015 will go far to provide more classroom space and a better technology/wireless environment for math faculty.

The ratio of adjunct instructors to full-time instructors is still seriously affecting student success in the program. The department has embraced the success center model for Math 815, 110 and 130 and continues to have discussions about continued SLA or other lab components requirements for transfer level math classes. The Success Center is thriving and is very busy and is beginning to implement Directed Study Groups as part of the five hour requirement. This gives students one more option to meet their algebra requirements (in addition to workshops and Directed Learning Activities). The Math faculty is continuously working with the Instructional Specialist to add DLA content and more material to the Center. The department is continuously reviewing data indicating a positive impact and more research is requested as the department moves toward integrated SLA’s for more courses.
Although, enrollment in math classes remains severely impacted, the engineering program continues to suffer from low student demand, despite the fact that there is a shortage of engineers in the field and advocacy from the local CSU’s to create a transfer pathway for students (one where they transfer fully prepared in mathematics). A newly hired full-time engineering/math instructor should help grow the program and bring much needed attention and assistance to create an applied engineering effort and pathway in collaboration with CTE and other disciplines. A plan for the expansion of the engineering program is currently being developed, which will include not only advertising at LBCC but also at various local university engineering programs. Partnerships with the local high schools and universities are also being explored. Synthesis with other departments on campus is in the works, as well as the development of new courses that are not math/physics intensive and more hands-on. Some of this effort might require the financial assistance of a grant in order for the effort to move forward. It is the intention of the math department to continue to build the transfer engineering pathway and coordinate with calculus and physics offerings while collaborating with the CTE area that is growing an Engineering Technician Program. Shared facilities to maximize resources will be beneficial to both departments.

The math department has now implemented the new “mathways” courses and is overhauling course offerings to better serve student demand/needs as described above. Such an overhaul includes a non-abstract contextualized pathway to non-STEM transfer-level courses such as Statistics 1 or a soon to be recreated Liberal Arts “Math Ideas” class. Math intersession workshops, already effective in keeping students on track, may soon become the norm and the department is looking at ways to incorporate this successful teaching method/strategy into the new facility in 2015, and plans to expand and continue in the large open-access lab in the Library (where it currently operates in winter/summer). As technology and innovative instruction continues, the math department will need further resources to fund effective online software programs such as ALEKS to further benefit student math success. Traditionally the math department has been able to function on a minimal supplies budget designed to cover markers, erasers, and little else. As the department continues to modernize and bring technology into the classroom environment, including moving to the new V building, additional resources shall be necessary to cover expenditures including computer software, projection systems, laptop computers, copy machine support, as well as the usual office supplies.

Issues & Concerns re Curriculum / Instruction:

Associate Degree Nursing: BRN accreditation was secured in Fall 2010 with the promise of hiring two new faculty and 100% front office support. The next accreditation site visit is February 2016. Since then the ADN Program has lost two faculty due to transfer and one due to modified work restrictions. It is critical that these positions move forward so that the program is not at risk of becoming non-compliant once again. It is imperative that these faculty be replaced so the can continue to be successful. Front office support has been stable with the hiring of an additional Nursing and Allied Health Coordinator. Clinical placement is an issue. Recently received a letter from Long Beach Memorial Medical Center indicating the ADN student is no longer able to utilize the hospital facility. This affects 100% of our womens and ped's rotations and 82% of our students. The Program Director is working to secure other clinical sites. A new contract with College Medical Center was obtained in October of 2014. It will allow for one clinical group in Mental Health and one in Medical/Surgical units. This certainly will not meet the need of the program. The ability to have students spend 25% of their BRN mandated clinical time in a simulation hospital is imperative to meet both scheduling demands and helps alleviate the loss of clinical spots in the community due to “magnet” hospital efforts.

Licensed Vocational Nursing: The department is assessing our student outcomes as a result of these 16 week calendar. Recently, an faculty member who had temporarily transferred to the RN program moved back and took a new “permanent” position in the VN program (per Hiring Priorities Fall 2014). The Addition of a new classified Nursing and Allied Health Coordinator has been helpful for the program director and she has been able to secure more clinical sites for the students. The simulation hospital room continues to operate in building B and it is helpful for student success. The Department Head is currently looking at ways to schedule more staff in the Skills Lab to support VN students and to better coordinate with the RN program demand, which has always dominated the schedule and use of the room. The institutionalization of the simulation coordinator brings some stability but some staffing needs still exist. The simulation hospital is utilized by faculty and students and is a big part of the curriculum and student success. A percentage of student time can be in the simulation hospital in lieu of clinical hospital time so the simulation hospital can help with scheduling while providing students with a non-threatening learning environment. A move to a new Home Health curriculum and program will bring a new and exciting program to the area and may require some staff to transfer responsibility and/or additional hourly faculty.

Allied Health: The Allied Health area transitioned to “swing” space for the next two years and will then moved to the D-building once the math area moves to the new Math/Technology building. The DMI program continues to outsource some of the Lab classes and acquired new equipment through VTEA funds last year (2013/14). The Dean and faculty are working closely with the Bond Management Team to design new space in the D-building and ensure that all areas have the necessary space and equipment for program licensure/accreditation.

Kinesiology: The Kinesiology area is equipment intensive and facilities bound. It is difficult to schedule classes and to grow the program when classroom gym/weight room/workout room space is limited, and shared with the Dance and Athletics areas. Gym equipment is expensive to purchase and expensive to maintain. The area is looking into leasing equipment for cost effectiveness and efficiency. Equipment is constantly changing and a lease agreement would help with on-going maintenance and the ability to acquire state of the art equipment. Additionally, as the area increases their KINPP (Kinesiology Professional Preparation) courses for majors, classroom space is scarce and difficult to find. Two areas that could serve as classroom space do not have any technological equipment for teaching. Request for dollars for “smart carts and smart equipment” have been in Department Plan resource requests for 3 years.

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processes for adjunct instructors and LTE classified staff has been problematic. The lack of advertisement and outreach to attract candidates for these positions has lead to tiny candidate pools for part time instructors and a scramble to fill LTE positions for the department.

The service contract for the planetarium has increased by 25% to $2500 this past year. This contract has more than paid for itself over the past 2 years, with the company providing equipment upgrades and technical servicing advice worth more than the cost of the contract.

Math Department: Problems currently exist in on-line courses as the success rates are very low. The department is looking to create more resources for on-line students and implement a screening system that ensures that the student has realistic expectations about the independent nature of this type of instruction. There have also been changes in the philosophy of scheduling classes, with many faculty agreeing that two, three and four days a week work best for the students. Workshop style courses using Aleks have occurred every term and a shift in how some hybrid courses are being offered is on the horizon. The department has embraced the Success Center model for Math 815, 110 and 130 and is in discussion about continued SLA or other lab component requirements for transfer level math classes. Continued research is requested as the department moves toward integrated SLA’s for transfer-level courses. The transfer-level courses would include Statistics 1, Math 45 (College Algebra) and Trigonometry. There has also been discussion about the viability of offering math 805 in the future. It is challenging and it may work better in an adult education format/setting.

**Full-time faculty staffing priorities**

The School hired the following positions in fall 2013 and spring 2014:

1. DMI (Radiology position)
2. Allied Health – Medical Assistant/Medical Terminology
3. Mathematics #1-4
4. Mathematics/Engineering
5. General Biologist
6. Astronomy - 2 positions
7. Astronomy/Physics
8. Chemistry/General - 2 positions
9. Chemistry/Health Occupations
10. Geology
11. Nursing, RN
12. Nursing, VN

Pending final approval, the School has recently been awarded the following positions to be hired in spring 2015:

1. Math - 3 positions
2. Physics (replacement for resignation of a new hire)
3. General Biologist/Anatomy
4. Registered Nursing
5. Exercise Science (Kinesiology)

Associate Degree Nursing – BRN accreditation was secured in Fall 2010 with the promise of hiring two new faculty. The next accreditation site visit is February 2016. Since then, the ADN Program has lost two faculty due to transfer and one due to modified work restrictions (and one is retiring this year). It is critical that at least two new positions be approved so that the program is not at risk of becoming non-compliant once again. It is imperative that these faculty be replaced so the Department can continue to be successful.

Licensed Vocational Nursing – the Vocational Nursing Program had a new position approved last year and is set for staffing. This new position will provide additional support to help create a home health aide curriculum to be added in fall 2014.

Allied Health – This area has adequate faculty due to two new hires. The area offered one AB955 course in winter 2013/14 (phlebotomy) and has offered phlebotomy for credit in the winter of 2015.

Kinesiology - The Kinesiology area acquired one new full time instructor this year (Matthew Barbier) after having no full time hires since 2006. In the last 5 years, the department has gone from 17 full time members to 12 (with the addition of Matt). Almost 50% of the Kinesiology faculty are due to retire in the next 3-5 years (Smith, Miller, Anderson, Jackson, Kane). If the area is not in line to hire replacement faculty, the area will realize a severe reduction in its ability to service students.

The area has asked for:

1. Exercise Science Instructor
2. HLED/Massage Therapy Instructor

**Physical Science** – Seven positions have been approved and hired for this area. It has brought much needed faculty and a breath of fresh air throughout
the department. The Physical Science area is thriving with new students and instructional consistency. These faculty positions are critical to continue the necessary course offerings in the area.

Mathematics – The department has hired four new positions and has already hired the new position for the Math Success Center (instructional specialist). Two faculty members will return in Fall 2015 from sabbatical (Ladera Barbee and Kris Mudunuri) and three more new positions have been granted (one new retirement – Bruce Chafee).

Part-time faculty staffing (FTEF) trends:
As the college continues to boost enrollment, part-time faculty loads have increased slightly and an uptick in the budget has resulted in more sections being offered in critical areas. This is partly because the new faculty are teaching sections while the high quality part-timers have been retained. This hiring has made it easier on the Department Heads, particularly those where qualified faculty members are difficult to find and recruit (sciences, mathematics and nursing). The School of Health, Kinesiology, Science and Mathematics has significantly increased the number of sections offered (See data reports). Department heads are trying their best to make sure that that PT instructors receive courses each semester and have stayed cognizant of the 67% load requirement for PT faculty. Most areas have developed a system of hiring faculty each summer and during the term and it has helped to infuse new talent into the departments. The use of NEOGOV has also helped to organize the part-time pools and has provided the added convenience of reviewing applicant pools from a computer. This has increased the diversity of the part-time applicant pools and those that are hired. Every area continues to evaluate the effectiveness and impact of part-time instructors. Areas such as nursing and allied health, where finding faculty can be difficult, have continued to recruit the best instructors to fill clinical rotations. The Registered Nursing Program recently received ACEN accreditation but one recommendation was to ensure that there was adequate full-time faculty and that all part-time faculty had a Master’s Degree in Nursing. The nursing cohorts remains at 40 students per semester while the area is in the swing-space facility (M and N buildings). This requires less part-time faculty but the reduction is only temporary and the department hopes to ramp back up to 60 per semester in 2015/16, upon completion of the new C building facility. The math and kinesiology areas continue to have very large part-time faculty pools and it is a challenge for the respective department heads. In the Life and Physical Science, it is difficult to find adjunct instructors to cover classes and expansion is difficult due to facility needs.

Kinesiology - The Kinesiology area has 12 full time faculty and more than 40 part time faculty. The part time faculty teach the majority of the active movement courses in the areas of KINPF (Kinesiology Physical Fitness) and about 50% of the courses in KING (Kinesiology General). The trend has been for full-time faculty to teach all lecture (KINPP) courses. The Department chair gave opportunity for part time faculty to develop their lecture skills and ability and gave 35% of the KINPP courses to part time faculty to teach. These adjunct faculty have been very successful and their recency of discipline knowledge has helped to enhance the courses.

The HLED area has 3 full time faculty and 7 part time faculty. HLED courses offerings are always filled to capacity with wait lists. New Kinesiology instructor, Matthew Barbier stepped in to teach 1 health class in the fall and will teach 3 in spring 2015. The area needs to hire more adjunct instructors until full time HLED/Public Health faculty can be hired.

Classified hiring needs/priorities:
The School of Health, Kinesiology Science and Math has seven departments with the recent addition of Kinesiology. This past fall, the area added one new Nursing and Allied Health Coordinator and one Administrative Assistant (Math and Science). Classified clerical support currently includes two Nursing and Allied Health Coordinators, an Academic Administrative Assistant and an Administrative Assistant for math and science. These positions are new and they fill a huge void that has occurred over the past year and a half. However, there is still inadequate support for Kinesiology which has 15 FT faculty and 56 PT faculty (and includes health education). This area currently has one .45% position. In addition, it has become difficult to offer winter and summer sessions in the math and science areas due to the instability of the staffing since the 12 month lab technician and learning support staff have been reduced to 10 months. The first priority of staffing is to bring back these positions to to 12 months to support instruction. Other classified staff priorities include staffing to assist in Success Centers (also in the Success Center plan), supplemental instruction (also in LAR plan), critical student assistants, nursing stockroom, assistance for the planetarium (a Technology Coordinator type position), a position to allow the life science learning center to re-open and to continue to support the lab classes at the Pacific Coast Campus. Reliable student workers are needed to assist clerical staff in the School and to help with general clean-up and laboratory set-up in the Life Science department. Funding is needed to support the retention of these students. As more laboratory sections are added to the PCC MDAB laboratory, the recently hired .45% part-time lab specialist may not be enough to support the expansion. The classified hiring priorities have also been identified at the department level. In Kinesiology classified staffing needs are as follows:

100% AA help for the Department
100% Program Specialist for the PCC Fitness facility
45% help for the KINA program

Prof Dev/ Training Activities needed:
Continued training in career and technical education areas is critical. There is less funding for non-CTE disciplines and it presents challenges in critical fields like math, kinesiology and science where innovation and teaching techniques are rapidly evolving. The faculty needs to attend conferences to stay up to date on industry standards and training needs. Current needs include

•Curriculum development basics and innovation, including new programs and math and engineering pathways
•Continued training for SLO’s
•Department Head training (systems, Peoplesoft, Schedule 25, Dashboards, Data, etc…)
•Patient simulation hospital room training – how to use the mannequins and scenarios in health care
• Math education conferences that present ideas in accelerated math class sequences and contextualized STEM course pathways, including new pathways for math and strategies to improve success and retention
• Classroom technologies designed for use in the classroom (turning technologies, ALEKS math, ipads, Surface Pro tablets and other teaching applications/software, etc.)
• Effective techniques for retention/student success and learning styles
• Classroom management and discipline
• Associate Degree Transfer
• STEM and Transfer (including 100K in 10 efforts to educate future teachers)
• The use of data to make decisions – where is the data and how to create a culture of evidence in the department
• On-line instruction, how to do it, how to do it effectively and techniques for student success
• Faculty need constant update and reminders of best practices with course and program SLO data collection and interpretation
• Professional development needs continue to be inadequate with “caps” on funds that relegate faculty members to local conferences only. Any conference of national significance that is not held in California requires a personal financial commitment. In addition, there is inadequate training and professional development through the District/Human Resources/Faculty Professional Development related to effective teaching techniques and innovation (on campus). The Symposia that have been created through the Promise Pathways effort have been beneficial and more collaboration between the various educational entities is warranted and requested.

**Budget account adjustments needed:**

• Room issues related to expanding instruction at the PCC need to be planned and addressed, as course offerings and sections are added.
• Funding is still needed to retool the Life Science Learning Center hours to support student success in science.
• As the Math Workshops continue, it is critical to continue to fund the effort (the success rates have been phenomenal).
• The sciences request more funding be allocated for Supplemental Instruction.
• The School will need funding to offer more sections in areas of high-demand, particularly in science and mathematics.
• The Equipment budget needs to be revised and increased to allow one-time purchases of replacement equipment, as needed. For example, approximately $40,000 is needed to replace physiological monitoring hardware/software because the current equipment will no longer be supported at the end of 2013.
• The Equipment Maintenance and Repair budget needs to be increased by $20,000 to appropriately maintain current equipment and warranties – planetarium, water distillation system, fume hoods, simulated mannequins, autoclaves, and microscopes. One suggestion is to eliminate this line item across campus and make sure that we have allocated sufficient funding to repair and replace program equipment.
• Conference budget approval and allocation needs to increased to allow faculty to attend conferences to update skills and stay current with their profession. This is critical in all areas of this school.
• Nursing needs more supply money as grants have helped underwrite supplies for the last nine years.
• The mathematics area is over budget for duplication each year and is underfunded. This department needs $6,000 to be added to the budget. In addition, the math area will need technology funding provided by the Bond or the District when they move to the new space in 2015.
• Chairs have been replaced in the science building! Phase two is beginning Spring 2014.
• Supplies are critical and as sections expand, it is necessary to increase the physical and life science budget by $5,000 each.
• Radiographic equipment can be replaced using existing VTEA funding and the DMI Program is offering their hands-on instruction in local hospitals while the C and D buildings are under renovation. Plans have begun to design the new space in the D-building when the math faculty move to the new math/technology building.
• The Kinesiology area needs equipment. Much of it at the LAC is broken and unusable. In order to be a premier facility and best serve students, an equipment lease or purchase to overhaul the equipment is sorely needed.

**Infrastructure/facilities issues:**

Completion of the Bond projects to create a new Math and Technology building and C-building renovation will improve instruction by providing much-needed and state-of-the-art facilities. Each building is scheduled to be complete in 2015/16. The area successfully moved into swing space in the M and N buildings and things are working out well for nursing and allied health instruction, including the skills lab and the Nursing and Allied Health Learning Center. Efforts to create an observatory have stalled and may ramp back up since new astronomy faculty are hired. This would provide a “complete” faculty and could greatly enhance instructional opportunities, student success and help the area to secure and recruit science majors. This has been requested for many years and would make the beacon program “whole.”

Regular upgrade and maintenance of the D building classrooms is needed to include smart technology (for example, smart boards/podiums and upgraded projection systems). Additional laboratory and classrooms in life and physical sciences are needed to maintain class section offerings as the college transitions to a 16-week semester. Many in the School are using “clicker” technology and the School would like to continue to expand the use of this technology. There are software packages that exist in addition to phone applications that can be used to enhance instruction. The faculty need assistance and professional development in this area. Many faculty are also using ipads and “apps” that create innovative instructional modules/displays/animations. It is recommended that the District embrace this technology and help the faculty to bring it to the classroom. Tablet technology is expanding as an instructional tool and this is recommended for math, kinesiology, science and math instruction. Comprehensive tech support and professional development is needed.

An analysis of facilities at PCC and the new classrooms is ongoing and the Department Heads are working on ways to expand the course offerings so that students at PCC have more options (not only the type of courses but also the times that they are offered). It is the intent to have science classes offered all day every day (if staffing and PT/FT faculty support is provided). As mentioned before, the School of Health, Kinesiology, Science and Math is moving toward providing more comprehensive offerings at the Pacific Coast Campus. As needs and supplies become necessary to support PCC, they should be allocated.
Access (ADA-compliance) issues:
Many areas within the School need to be improved in terms of access for our disabled student population. The Dean has done a walk-through of swing space and identified many problems. The School works with DSPS very closely and address any problems at the beginning of the semester. All courses that are on-line follow the guidelines for compliance but challenges and unfunded mandates for the hearing impaired remain a challenge. All nursing and Nursing received grant and District funds to purchase instructional materials that are upgraded with subtitles, etc, but the availability of materials from vendors is limited. Faculty has received training and information about how to handle DSPS students and provide accommodations, when necessary to help promote student success. However, the area is currently working with the DSPS Department to address faculty concerns and provide guidance. All ADA compliance issues are being discussed and have been incorporated into the new designs/renovations for the new buildings.

Describe outreach efforts and results:
The Dean is involved with many outside agencies including CSULB, LBUSD, the California Community College Association of Occupational Educators (CCCAOE), Los Angeles/Orange County Workforce Development Leaders (LOWDL), as well as the Dean’s groups for CCC. In addition, the Dean and Department Heads meet regularly with university and hospital staff and administrators to keep abreast of issues and needs. The nursing and allied health areas apply for grants regularly and attend chancellor’s office sanctioned events like Health Workforce Initiative meeting (formerly RHORC). Program Directors meet regularly with advisory committees and the Health Care Associates group of the Foundation meets monthly (community members sit on this committee). This year, the Health Care Associates sponsored a holiday gathering for the faculty and site supervisors.

The School of Health, Science and Math continues to collaborate with CSULB on engineering and math success projects to support seamless education efforts. Through the College Promise, many connections have been established and continue to be pursued. The math department has been a participant and leader in the College Promise effort. Meetings have occurred throughout the last year to bring the math department together with LBUSD and CSULB and discuss student learning outcomes, instructional strategies and the common core to be implemented in the K-12 system in 2014.

The Kinesiology area often hosts tours for 4th grade as well as high school students. At least 1 Friday per month is devoted to hosting tours. Some of our current majors were high school visitors from the last few years.

The Department chair works with Physical Education and Health Professionals in the LBUSD as well as she converses regularly with the Department Chair of Kinesiology at CSULB and CSUF to make sure that all academic graduation pathways are clearly understood by our transferring institutions.

Within the Kinesiology Mentoring for Majors proposed program, speakers from our transferring institutions and local business professionals are scheduled to come work with our majors.

Describe grants initiated:
Song Brown for “Code Green” student success workshops and for the VN to RN bridge has been funded again because the funding source really liked the VN bridge and the Code Green Student Success Program. New grant proposals could include bolstering the accelerated nursing programs and continued bridges with the BSN programs.

Engineering Pathways Trust Grant and the Health Care Collaboratives are the priority projects for the upcoming year(s). The math department would really like to work collaboratively to create an engineering pathway.

The STEM areas are poised and ready to go after grants to support student success/retention and to support diversity and science and math pathways.

The School will once again participate in the college’s Title V effort for STEM and the Long Beach College Promise. The math department is exploring funding opportunities for math workshop style courses, intersession workshops and summer math jams, including a pathway for non-math or science students to ease their transition into transfer level statistics.

Describe economic development activities:
The Dean and faculty maintain regular contact with local hospitals and clinics to encourage them to hire graduates. The nature of allied health and nursing allows clinical experience that often turns into a job for the student. New staff in allied health have already helped to acquire new clinical spots for vocational nursing, medical assisting and phlebotomy. Many of the hospitals are moving toward “magnet status” and that has created challenges for the Associate Degree Nursing students because the hospitals are hiring Bachelor of Science in Nursing students only. The programs continues to focus on providing a bridge program to the local universities to provide a pathway for the students. An accelerated A.D.N. to B.S.N. program has been initiated with CSULA. Math and science opportunities and careers are abundant and are regularly brought to the attention of students. The college is once again exploring a Title V and other grants that will focus on science, technology, engineering and mathematics (STEM). The School has a vision of providing a Science Success Center similar to the Math Success Center. As mentioned before, many of the life science and nursing courses have already begun to incorporate directed learning activities and a structure that is in-line with existing Success Center efforts. It is expected that these efforts continue and expand.

Describe internal & external partnerships:
Collaborations occur throughout the School and are particularly strong with the seamless education effort (Promise Pathways), LBUSD advisory committee (McBride CTE High School) and various grant collaborations with local LB high schools (Jordan’s ACE Academy and Health Care SLC and CAMS at CSUDH). An expansion of connections this year will focus on CAMS at CSUDH, concurrent enrollment (Medical Terminology) and solidifying additional transfer opportunities for nursing students. They also exist with many of the regional hospitals and colleges. All nursing and
allied health departments have regular contact with area hospitals as listed above. Programmatic information and ideas are shared on a regular basis through advisory committees. Faculty and administrators participate on local Boards such as Long Beach Memorial Health Care’s Academic Committee and the Consortium for RN/VN clinical placements. Faculty participates in information exchanges with local college, universities and business. The Dean participates on outside advisory committees, boards and has frequent contact with K-12 partners to enhance instruction and collaboration. One of the upcoming responsibilities for the Dean will be to support the 100K in 10 project (a program to create K-12 teachers that are more adept in science and math instruction).

The Physical and Life Science departments continue to work with CSULB in the Bridges to the Baccalaureate program. LBCC student participation in the program has resulted students declaring science major and an over 90% transfer rate for participants.

**Describe opportunities in int/ ext. communities:**

Better advisory committee utilization and cultivation for programs across the School. The RN/VN/Medical Assistant areas have bolstered their Advisory Committee effort (under the leadership of the RN Program Director and it is a good model moving forward. The DMI program has a robust and active Advisory Committee. There is good movement with LBUSD partnerships with CTE programs in health sciences and math and engineering. This year, there can be a continued emphasis on science and curriculum alignment as the entities continue to work on the Promise Symposium and other co-staff development opportunities (including best practices, SLO’s and curriculum alignment). There should be more opportunities to partner with hospitals to provide equipment for the college and help underwrite expensive medical supplies and equipment. In science, there should be better connections with industry to provide students with information about careers in science (and research opportunities/internships). Recruitment and or encouragement of students to be science and math majors remains a priority. As connections expand with local school districts and colleges, more needs to be done to visit other campuses and create collaborative grants and projects and provide pathways and pipelines for LBCC graduates. More also needs to happen to provide connections with industry such as Boeing and other science and engineering related local businesses. With new faculty on board, this is now possible.

In addition, The School faculty is involved with Title V grant writing; the Student Equity Plan; the Tier 2 grant projects; Innovations in Education partnership with LBUSD and CSULB. While this yields dividends for the department, more area faculty need to be involved.

**Major accomplishments:**

Accomplishments – School of Health, Science and Math

**Overall**

• Added the Kinesiology Department to the School effective July 1, 2014. Provided a seamless transition and support for 18 FT and 50 PT faculty.
• Efficiency improved in the School of Health, Science and Math. Department heads adhered to enrollment management plan in 2014 and focused efforts on core courses and expanding enrollment where needed.
• Met FTES targets for 2013/14.
• Ten positions were approved for the School of Health, Science and Mathematics (prior to the addition of Kinesiology)
• Four new full-time math instructors and one full-time engineering/math instructor hired to help with high demand in math and to spur growth in the engineering program.
• Seven of ten full-time faculty positions submitted to the Hiring Priorities Committee were approved for Fall 2015.
• Continued Tenure Review Process for probationary faculty in nursing, allied health, life science and math.
• Implemented strategies to meet the growing demand in Statistics and STEM courses as well as remedial mathematics courses.
• Continued to support the Promise Pathways effort by participating in meetings and symposiums, increasing course offerings based on demand and creating alternative pathways for students (Mathways)
• Expanded alternative placement model in mathematics (research proves advantageous for underrepresented student success) to secondary school districts beyond Long Beach.
• Implemented new courses as part of the “Mathways” effort to include CTE math (Math for Culinary Arts), Applied Algebra (Math 115), and Combined Algebra (Math 140) courses.
• Continued to expand innovative math workshops for summer and winter offerings due to high rates of success and to generate additional FTES.
• Extensive work with Bond Management Team to designs for the C and V buildings and for the D-Building remodel.
• Created technological support in the Math Technology Building for cutting edge teaching modalities.
• Building V (Math and Technology) and building C (Nursing) ground breaking and construction continues.
• Math, Geography and Geology Associate Degree Transfer (ADT) model curriculum complete and approved.
• ACEN accreditation site visit and self-study report completed in February. Accreditation received with focus report due in 2016 for Standard 2: Faculty and Staff.
• Student success rates rise in the School (see specific reports)
• Significant gains (5+ % year over year) in retention and success were achieved in Physics, Astronomy and Physical Geography compared to the previous year. Chemistry and Physics had 30% and 15% increases in enrollment (FTES, too – same %? Not sure) due to increased sections offered. Access improved across both campuses for physical science classes, therefore equity improved as well.

**RN Program**

• Simulation Coordinator utilized in all ADN courses to assist with faculty instruction
• Curriculum development to include changes in BRN requirements and Quality and Safety Education in Nursing (QSEN) courses to meet accreditation standards.
• Improved LVN to RN program transition and modified the transitions course to better prepare VN’s to succeed in the RN program.
• Developed a bachelor’s degree bridge program with both CSULB and CSULA. Other collaboratives in development are Vanguard, CSUF and CSUDH.
• NCLEX exam pass rate for LBCC Program was at 92-98%. We are now seeing a significant drop in the pass rate to 86.8%
• Cross-disciplinary effort to hire student assistants from life science classes to serve in the simulation hospital and gain nursing experience (prior to their being admitted to the program).
• Nursing web pages have been improved and enhanced to include all information and downloadable forms.
• Kiosk available for students in the Nursing and Allied Health Office
• Continue to seek grant support for remediation
  o Assessment and Remediation
  o Skills lab expansion
  o Simulation is implemented in every nursing course
  o Implemented the Comprehensive Assessment and Remediation Pack in all core nursing courses
• Student Learning Outcomes and Program Outcomes: responding to data analysis and assessment ongoing.
• Continue to support and implement grants
  o Assessment and Remediation and Simulation Hospital
  o Simulation Lab (VTEA supported)
• Pepsi grant funds awarded to expand library and study materials for nursing students (reserve books, etc.) and address closed captioning issues for materials (with some funds from the Health Care Associates)
• Student Learning Outcomes complete – assessment ongoing.
• Expand Seminars in Code Green and use on-line registration. Utilize Math faculty and Library Faculty to assist in Code Green.
• All Program SLOs and course SLO’s complete

LVN Program

• Able to admit 95% of all 1st time applicants to the VN program
• Simulation being integrated in all core courses
• The VN web page is thorough, complete and updated frequently, resulting in better communication with existing and prospective students.
• A better bridge for VN to RN has been established resulting in an increase in bridge students by over 50% from previous years. Better and more complete student friendly processes and criteria have been implemented for bridge students.
• Secured instructional support funds to upgrade the LXR test grading system and incorporate the use of student learning outcomes assessment for the College.
• Student Learning Outcomes complete – assessment ongoing.
• Implement home health aide course with additional certificate 2014-15
• Secured additional clinical training sites to accommodate students
• Increased pre-requisites to writing proficiency met or English 105 or higher

Allied Health

• Hired two full-time faculty members to replace retirees (Medical Assisting and DMI).
• Continued offering CT and MRI in alternating years with a wait list of 30. This new program has built capacity and expanded to new clinical sites (per industry advisory committee recommendation)
• Continued to develop and modernize skills lab for medical assisting students and began using the skills lab for all of nursing and allied health.
• Continued partnership with Long Beach Memorial Medical Center to conduct Live DMI labs at their facility, saving the college funds so that we did not have to build swing space DMI labs.
• Actively participating in the design of the D building remodel, which will house Allied Health.
• Student Learning Outcomes complete – assessment ongoing.
• Web pages for DMI and Medical Assistant programs are on-going with accurate information and application materials provided on-line.
• Purchase of 2 non-energized tables for the swing space lab, installed and operational
• Offered winter intersession Phlebotomy course (AB955). Continue to offer high demand courses during winter session (Phlebotomy and Medical Terminology).
• Reintroducing a Mammography course.
• Received VTEA Funding for collaboration with LBUSD to offer courses for High School students.
• Departmental discussion and movement towards a health care worker certificate of accomplishment (working on new course for submission in April 2015)

Kinesiology

• Department created a Kinesiology Majors Club
• Chosen to pilot the Mentoring for Majors Program (developed by the department)
• Created a comprehensive Kinesiology website
• Created 3 “commercials” for YouTube for course and department promotion
• First department to create “Graduation Pathways” that will now be used as an example for other departments
• Instructor Chris Oeding was named as the Assistant Coach to the Women’s Water Polo National Team
• Department Chair presented a comprehensive program overview of all the recent changes, entitled “Not Your Grandma’s PE Department” to the LBCC Board of Trustees
• Wrote 5 courses for the Personal Training Certificate and 8 courses for the Massage Therapy Certificate program
• All courses are C-ID compliant
• Department Chair is the Academic Senate President

Life Science

• The number of web-enhanced courses has continued to increase.
• In collaboration with Horticulture, a D-building native plant landscaping project has progressed and is continuing.
• “Science Night was held in May 2013, and again in 2014 and was extremely well attended. Both full-time and adjunct faculty participated.
• An ASB Grant was awarded to offer the second annual Science Night
• Extensive Biology 41L curriculum and lab manual revisions are almost completed. Two new labs have been piloted and are now implemented into the lab curriculum.
• A Faculty Teaching and Innovation Grant was awarded through FPD. This grant funds the purchase and pilot evaluation of a novel Anatomy learning system.
• The course offerings at the PCC laboratory have been expanded to include BIO5, BIO 11, BIO 41, BIO41L and BIO 60.
• A new BIO 60 on-line course is being explored as a way to increase our on-line course offerings.
• The Life Science Department web page has been extensively updated to be more attractive and useful to current and potential students.

Areas to improve:

• SLO Assessment conducted and completed and meaningful discussion about “closing the loop” and improving instruction. More professional development and work within the departments to move from a compliance mentality to an instructional improvement mentality.
• Part-time faculty hiring and evaluation processes.
• The improvement of distance education success rates is necessary and modifications toward better support to create student success is imperative. Explore totally on-line courses with a mind for student success.
• The development of strategies and availability of resources are critical to create innovation in instructional areas and continue to improve success rates.
• Renovation and remodel of the Success Center to accommodate higher utilization and expansion of SLA’s into all classes that can benefit.
• Review Carnegie unit for courses and take a look at courses to make sure the units are sufficient for student success.

Physical Science

• The department recruited and interviewed for 4 full time positions and was allowed to hire 7 full time instructors due to impressive demand for the department’s courses. The new FT instructors hired greatly increase the ethnic and gender diversity of the department, providing strong role models which more closely mirror the LBCC student population.
• One new classified staff member was hired to run the chemistry stockroom, a key position in a growing discipline.
• A modern NMR instrument was purchased and installed, with first classroom use in Fall2014. The instrumentation in the chemistry and physics labs was reviewed and capital outlay money has been awarded for large and small equipment purchases.
• Offerings of physical science sections at the PCC campus increased, notably with more chemistry sections and the first offering of GEOG 15F. Section offerings increased in Physics (at LAC) and online sections in Geography due to student demand.

Math

• Continuing the successful development of Math Success Center since Fall 2008
• Instructional Specialist position was filled with a new full-time faculty member who is in charge of the day-to-day function of the Math Success Center.
• Continued implementation of DLA’s for Math 815, 110 and 130
• Created more DLA’s and SLA’s for Math 815, 110 and 130.
• Created DLA’s for the newly implemented Math 115, Applied Algebra course.
• On-going design regarding lab components for other courses, to include Statistics and Trigonometry.
• Accelerated math options altered to include Math 140 Combined Algebra as well as a piloted combination of Math 815/140 to allow students to achieve credit for three courses in one term.
• Secured four more full-time faculty members for math (two in Spring 2014 and two in Fall 2014) and one full-time engineering/math instructor through hiring priorities process.
• Continued implementation of a part-time faculty hiring process in collaboration with the Instructional Specialist of the MSC currently being done each semester as well as during the summer session to meet demand.
• Implementing a new-hire orientation/mentor program within the department to include a Moodle page for instructors filled with vital information and support.
• Continuing to work with Human Resources and the math faculty to catch up on over numerous PT evaluations and adhere to quality standards within the Department.
• Hired a 10-month AA staff member to help support the day-to-day operations of the math department.
• Student Learning Outcomes assessment training for part-time faculty and a coordinated effort amongst full-time faculty – assessment ongoing.
• Expanded a math workshops using ALEKS software designed to keep students on track and facilitate their educational plan. Doubled the capacity by adding an morning and afternoon “session” for Winter 2015.
• Coordinated with the McBride High School Engineering program and Jordan High School Architecture, Construction and Engineering (ACE) Program to create pathways to help grow the LBCC engineering program.
• Student success rates continue to steadily improve due in part to the Math Success Center SLA efforts (Data is available on-line and in the Department).
• Continue to work with the Hiring Priorities committee to bring in more full-time instructor talent in order to improve student retention, success, and equity.
• Designing/improving “mathways” to better represent the inspiring usage of math both in the modern world and throughout history as well in order to more equitably serve all students’ needs, both STEM and SLAM (Statistics & Liberal Arts Math.)
• Implemented a math course in support of the Culinary Arts department that is modifiable to support a vast array of CTE programs (lower level math that is critical for many CTE programs – measurements, decimals, etc.).
• Continue to schedule courses to meet the needs of students, to include daily class meetings, separate lab components, etc.
• Instituted a Distance Learning Committee that now meets regularly and is directed to implement a department wide uniform distance learning strategy and improve success rates.
• Implementation of Course Committee structure for better organization. Course Committee members to continue to implement an improved in-house SLO effort.
• Ongoing discussion and exploration of a non-math/science major pathway to transfer level statistics (Stat Path).
• Continuing to work with Bond Management and College staff to help design Math Technology Building to support cutting edge technology that lays the foundation for the latest teaching modalities, and to meet the future needs and vision of the students.

Areas to improve:

• SLO Assessment conducted and completed and meaningful discussion about “closing the loop” and improving instruction. More professional development and work within the departments to move from a compliance mentality to an instructional improvement mentality.
• Part-time faculty hiring and evaluation processes.
• The improvement of distance education success rates is necessary and modifications toward better support to create student success is imperative. Explore totally on-line courses with a mind for student success.
• The development of strategies and availability of resources are critical to create innovation in instructional areas and continue to improve success rates.
• Renovation and remodel of the Success Center to accommodate higher utilization and expansion of SLA’s into all classes that can benefit.
• Review Carnegie unit for courses and take a look at courses to make sure the units are sufficient for student success.
• Continue with student success efforts in all departments to include the integration of supplemental learning activities into courses across the School, online supplemental instruction and computer assisted instruction (where appropriate).
• Invest in and support professional development to help faculty with innovative methods (particularly with an eye toward pathways).
• Increase in breadth of area courses.
• Reinstatement of Instructional Supplies funding for the science departments.
• Re-open the Life Science Learning Center which served over 600 students per year.
• Reimplementation of Supplemental Instruction for science courses
• Full-time faculty hires approved and pending in key instructional areas:
  • Math x 3 positions
  • General Biologist/Anatomy
  • Registered Nursing
  • Exercise Science
  • Physics
• Classified Staff Positions – to support new and innovative programs and student success initiatives
  • Life Science/Physical Science
• Increase 10 month employees to 12 month employees in instructional support positions
• Support PCC laboratory activities
• Enable reopening of the Life Science Learning Center
• Explore implementing a Science Success Center
• Supplemental Instruction for Sciences
• Classified/Faculty support for Astronomy class/lab/planetarium/observatory
• Student Assistants
• Nursing and Allied Health
• Simulation Hospital
• Learning Center
• Skills Laboratories
• The continuation of District support for instructional areas in Health, Kinesiology, Science and Math is essential as need will continue to arise.
• The Math Success Center has expanded and serves more students and is having an impact on student success. Directed study groups to be implemented. Challenges include how to expand the DLA requirements to transfer-level math classes and still have the capacity to serve the existing students in algebra courses.
• Adequate support for Department Heads

Additional Comments:
This year, the D-building will continue to be equipped with new chairs for the student areas and for classrooms that did not get upgraded last year. With the emergence of capital outlay funding this year, priorities by department have been established and submitted to the Vice President and the approval document will be attached as part of this plan (attachment includes Capital Outlay/Redevelopment funding priorities). A number of things have been approved purchased to improve instruction in the science area – an IR machine, physics lab equipment, expansion of rock specimens for geology, computer laptops/tables/software for math, life science equipment, classroom upgrades in Kinesiology and air conditioning for the Q and R building faculty offices. State of the art equipment continues to be necessary and instructional models and equipment greatly enhance the student experience and improve engagement and success. The college has been able to adequately support equipment and supplies in this area but the sciences need additional equipment funds to cover the expansion of sections. Of note, is the chemistry area is in need of a replenishment of about $20k in chemicals. As expansion occurs at PCC, more equipment and supplies will be necessary to provide the same level of instruction as occurs at LAC. It is critical to purchase current and relevant material and teaching aides/props/technology/equipment in the sciences. Two years ago, Academic Affairs put together a Total Cost of Ownership project and it will provide a process for replacement of college equipment on a cyclical basis. This project has since been abandoned. However, it is critical for equipment such as large autoclaves, fitness equipment and other critical components are aging and maintenance/replacement funds need to be a consistent (and perhaps increasing) part of the budget. The School recommends that the District look into a leasing or an equipment overhaul of fitness/wellness equipment at LAC as it is aging, broken or inadequate to meet current needs. Many faculty and staff are in need of replacement computers and the laboratories should be monitored for necessary upgrades.

VTEA Project Priorities
• Patient simulation staff/equipment/supplies
• Faculty and staff training in patient simulation techniques/scenarios
• Curriculum development in nursing, allied health and massage therapy
• New courses and program development (home health, massage therapy, health care worker, MA to VN to RN to BSN bridges)
• Articulation and partnerships with local high schools
• CTE student success (nursing and allied health)
• Student and graduate mentors/assistants
• Industry standard equipment for CTE programs in School (engineering tech, nursing and allied health, massage therapy, trainers, etc.)
• DMI and Medical Assistant Equipment
• EMT equipment and supplies to include simulation
• High school bridge programs and tours (including science preparation)
Goal

Increase the number of health, science and math majors and degrees and certificates awarded/received each year by discipline (from baseline 2010/11 numbers).

Goal Priority: 1

1. Type of Resource Requested: Personnel - Faculty

1. Resources Requested: Increase faculty in all departments to better serve students. Increase math and science sections to reduce number of students on waitlists. Provide access to high demand courses.

1. Estimated Cost: 440000

1. Year:

1. Suggested Funding Source: General Fund

2. Type of Resource Requested: Personnel - Classified/ Manager

2. Resources Requested: Provide additional support for Supplemental Instruction for math and science

2. Estimated Cost: 25000

2. Year: 2011-2012

2. Suggested Funding Source: General Fund

3. Type of Resource Requested: Personnel - Faculty

3. Resources Requested: Expand the use of DLA’s in math, science, nursing and allied health. Attach hours to courses to integrate with success centers

3. Estimated Cost: 10000

3. Year: 2011-2012

3. Suggested Funding Source: General Fund

4. Type of Resource Requested: Personnel - Classified/ Manager

4. Resources Requested: Create a science success center to support STEM

4. Estimated Cost: 150000

4. Year: 2011-2012
### Relationship to Higher Level Goals

**Academic Affairs**

<table>
<thead>
<tr>
<th>Goal Type</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improve rates of student success which include, but are not limited to, the following: AA/AS, AA/AS-Transfer, transfer, certificates of achievement and workforce readiness.</td>
</tr>
<tr>
<td>Goal Type</td>
<td>Goal</td>
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<tr>
<td></td>
<td>Continue to implement goals and objectives of the Pacific Coast Campus Plan as they pertain to Academic Affairs.</td>
</tr>
</tbody>
</table>

**Increase classroom success by 2% each year in each discipline by utilizing state-of-the-art technology** *(Patient Simulation, dissection microscopes, math pathways, curriculum, Nuclear Magnetic Resonance NMR, IR, Aleks software, MyMathLab, etc.)*

<table>
<thead>
<tr>
<th>Goal Priority</th>
<th>2</th>
</tr>
</thead>
</table>

**Supported Department Goals:**

All departments are considering or expanding to include DLAs in key courses

1. **Type of Resource Requested:** Other

1. **Resources Requested:** Provide Aleks software training and access for students. Students would pay for access codes in the bookstore or attached to their book cost.

1. **Estimated Cost:** 60000

1. **Year:** 2014-2015

1. **Suggested Funding Source:** General Fund

2. **Type of Resource Requested:** Other

2. **Resources Requested:** Create Science Success Center

2. **Estimated Cost:** 250000

2. **Year:** 2011-2012

2. **Suggested Funding Source:** Grants

2. **Comments:** This is a direction that would go into 2012-2015 and would include a variety of grants and could coincide with the Math Technology Building move.

3. **Type of Resource Requested:** Other

3. **Resources Requested:** Planetarium Support/Technician

3. **Estimated Cost:** 45000

3. **Year:** 2014-2015

3. **Suggested Funding Source:** General Fund

3. **Comments:** This position is important to make sure the planetarium and science area technology is supported

4. **Type of Resource Requested:** Other
Classified staff lab and learning center staff boosted from 10 months to 12 months to support instruction.

4. Resources Requested: 60000
4. Year: General Fund
4. Suggested Funding Source: This has not been funded but the simulation hospital and skills lab needs additional staff to expand capacity and better serve students.
4. Comments:

Relationship to Higher Level Goals

Academic Affairs

Goal Type: Goal: Improve rates of student success which include, but are not limited to, the following: AA/AS, AA/AS-Transfer, transfer, certificates of achievement and workforce readiness.
• Increase student success and persistence in each section by 3% by utilizing and implementing the success center and learning center models and student learning outcomes assessment for health, science and math.
• Add SLAs to appropriate courses and faculty development (full and part-time) and create departmental buy-in
• Provide guidance and support for staffing science learning center which may include graduate interns
• Support and expand workshop model and team teaching for math students to include a new summer bridge and/or intersession workshops.
• Implement skills-practice software to the math curriculum.
• Introduce/continue Directed Study Groups to Math Success [Center] efforts.

Goal Priority:

3

1. Type of Resource Requested: Equipment
1. Resources Requested: Patient Simulation, dissection microscopes, physiology monitoring equipment, observatory, IR, other equipment, etc.
1. Estimated Cost: 80000
1. Year:
1. Suggested Funding Source: General Fund
2. Type of Resource Requested: Equipment
2. Resources Requested: New Fitness Equipment for LAC campus
2. Estimated Cost: 120000
2. Suggested Funding Source: General Fund
2. Comments:

Personnel - Faculty

3. Type of Resource Requested: Personnel - Faculty
3. Resources Requested: See goal number one for strategies for success that include SI, DLA expansion and science success center
3. Estimated Cost: 110000

4. Type of Resource Requested: Personnel - Classified/ Manager

4. Resources Requested: Restoration of Lab Technicians for Life and Physical Science

4. Estimated Cost: 55000

4. Year: 2012-2013

4. Comments: Critical for Sciences

5. Type of Resource Requested: Personnel - Classified/ Manager

5. Resources Requested: Science Learning Center Staff Member

5. Estimated Cost: 40000

5. Year: 2013-2014

5. Suggested Funding Source: General Fund

5. Comments: This area has been shut down for over two years and it provided much needed support for science students. It is recommended that it be part of the Student Success Agenda

6. Type of Resource Requested: Personnel - Classified/ Manager

6. Resources Requested: Support for PCC laboratory classes. Upgrade the position to 100%

6. Estimated Cost: 15000


6. Suggested Funding Source: General Fund

6. Comments: Need support for PCC science labs. None exists even though courses were added that require technical lab expertise and set-up. Lack of staff hampers our ability to run courses at PCC.

Relationship to Higher Level Goals

Academic Affairs

Goal Type: Goal: Improve rates of student success which include, but are not limited to, the following: AA/AS, AA/AS-Transfer, transfer, certificates of achievement and workforce readiness.

Educational Master Plan 2011 - 2016

Goal Type: Goal: Student Success

**Continue to reduce waitlist demand by 10% for key courses (Priority and high waitlist courses will be offered to reduce waitlist demand by 10% in key math courses (Math 815, 110 and 130). Increase course sections in high-demand, high enrollment courses to meet the needs of students

Goal Priority: 4

Supported Department Goals: Increase student success

1. Type of Resource Requested: Personnel - Faculty
<table>
<thead>
<tr>
<th>1. Resources Requested:</th>
<th>Increase in hourly account for the School of Health Science and Math.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Estimated Cost:</td>
<td>80000</td>
</tr>
<tr>
<td>1. Suggested Funding Source:</td>
<td>General Fund</td>
</tr>
<tr>
<td>2. Type of Resource Requested:</td>
<td>Personnel - Faculty</td>
</tr>
<tr>
<td>2. Resources Requested:</td>
<td>Nursing program is temporarily going down to a cohort of 40 students (due to faculty and facilities constraints) and will need to ramp back up to 60 students per semester in 2015/16</td>
</tr>
<tr>
<td>2. Estimated Cost:</td>
<td>60000</td>
</tr>
<tr>
<td>2. Suggested Funding Source:</td>
<td>General Fund</td>
</tr>
<tr>
<td>2. Comments:</td>
<td>An increase in the 1300 account will be necessary to pay for clinical instructors as we re-establish a 60 student cohort model that has been in place for the history of the program.</td>
</tr>
</tbody>
</table>

**Improve success rate for underrepresented students by 5% in all courses (Achievement Gap)**

<table>
<thead>
<tr>
<th>Goal Priority:</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported Department Goals:</td>
<td>Student success and innovation</td>
</tr>
<tr>
<td>1. Type of Resource Requested:</td>
<td>Other</td>
</tr>
<tr>
<td>1. Resources Requested:</td>
<td>Continued research and evaluation to support innovative methods and analysis of data to tweak or improve.</td>
</tr>
<tr>
<td>1. Suggested Funding Source:</td>
<td>General Fund</td>
</tr>
<tr>
<td>1. Comments:</td>
<td>Could be handled by existing research staff.</td>
</tr>
<tr>
<td>2. Type of Resource Requested:</td>
<td>Other</td>
</tr>
<tr>
<td>2. Resources Requested:</td>
<td>Professional development for faculty to learn about and implement accelerated learning and integrate success strategies into the fabric of the curriculum and instruction (i.e., DLA's, SI, case management, counseling, faculty advisors, peer mentor/tutors).</td>
</tr>
<tr>
<td>2. Estimated Cost:</td>
<td>15000</td>
</tr>
<tr>
<td>2. Suggested Funding Source:</td>
<td>Grants</td>
</tr>
</tbody>
</table>

**Support the Pacific Coast Campus Plan by adding more sections and increasing sections by 10%**

<table>
<thead>
<tr>
<th>Goal Priority:</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Type of Resource Requested:</td>
<td>Other</td>
</tr>
</tbody>
</table>
1. **Resources Requested:** Funds to increase section numbers (could come from a reallocation of existing resources at the college)

1. **Year:** 2014-2015

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**Implement efficient scheduling and room utilization and an annual schedule. Support expansion of high demand classes (Spring 2014 and on-going).**

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<th>Goal Priority:</th>
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**Supported Department Goals:** Develop a more effective schedule that includes an increase in high-demand courses and a reallocation of resources to areas that students need.

1. **Type of Resource Requested:** Other

1. **Resources Requested:** Scheduling and utilization software for college - Schedule 25. Enrollment management and planning. Annual schedule. Accelerated classes.

1. **Year:** 2014-2015

1. **Suggested Funding Source:** General Fund

1. **Comments:** Ensure that new instructional facilities at PCC have ample equipment and supplies to run science and VN courses. Install all equipment and stock classrooms for courses to be offered in Spring 2013.

2. **Type of Resource Requested:** Equipment

2. **Resources Requested:** Equipment requested has been granted for sciences but nursing and emergency medical technician (EMT) will need supplies and equipment.

2. **Estimated Cost:** 50000

2. **Year:** 2013-2014

2. **Suggested Funding Source:** General Fund

2. **Comments:** VTEA and Grants can off-set these expenses

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**Support and participate in Promise Pathways and other collaborative efforts designed to provide access and success for incoming students thereby increasing first-time freshman success by 5%.**

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<th>Goal Priority:</th>
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1. **Type of Resource Requested:** Other

1. **Resources Requested:** None needed. Just continue with planning, strategy and effort of all staff and faculty.

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**Provide staff for critical areas of need as identified in departmental plans which summarize who and where.**

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<th>Goal Priority:</th>
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**Supported Department Goals:** Need faculty for RN program and for Biology. Will need Astronomy faculty after retirements

1. **Type of Resource Requested:** Personnel - Faculty

1. **Estimated Cost:** 180000
1. Suggested Funding Source: General Fund

2. Type of Resource Requested: Personnel - Classified/Manager

2. Resources Requested: Simulation Coordinator position will need to be institutionalized and supported. A simulation technician will be necessary. Also, expansion of science lab support to include building a Science Success Center. And, a classified person or faculty reassigned time to manage, maintain and expand Astronomy efforts (planetarium and observatory and outreach)

2. Estimated Cost: 80000

2. Year: 2011-2012

2. Suggested Funding Source: General Fund

2. Comments: This is a long term plan that should be implemented in phases. All positions are School priorities.

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**Develop pathways in all areas and recruit students to be majors in the respective area. Increase majors by 5% annually. Continue to develop pathways for students in mathematics and expand engineering courses and coordinate with CTE efforts**

Relationship to Higher Level Goals

Academic Affairs

Goal Type: Goal:

Improve rates of student success which include, but are not limited to, the following: AA/AS, AA/AS-Transfer, transfer, certificates of achievement and workforce readiness.

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**Support curriculum path for new AST degrees in School disciplines**

Goal Priority: 10