



PROGRAM REVIEW

Instructional Program Review Template

Year : 2019-2020 v	Plan Type (select a		ו : cal & Environmental s	Sciences		~	Save My Work
				Last	edited on 12/6/2	019 by R-EUR	EKA\Stephanie-Burr
				Re	viewed on 12/6/2	2019 by R-EUR	EKA\Stephanie-Burr
Program Information	Data Analysis	Critical Reflection of Assessment Activities	Evaluation of Previous Plans	Planning	Resource Reguests	Author Feedback	PRC Response

4.1 Describe plans/actions identified in the last program review and their current status. What measurable outcomes were achieved due to actions completed? Include the impact of completed and uncompleted plans.

Action plans may encompass several years; an update on the current status, or whether the plan was discarded and why.

Number Program Plans	Current Status	Describe Impact of Action	
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1	Develop outdoor campus resources at both Eureka and Del Norte campuses. Both campuses are fortunate to have rural settings but the bridges, trails, ponds, and docks are in disrepair. This compromises student access to readily available hands-on learning opportunities in field biology and environmental science. Student clubs have volunteered to do restoration and maintenance work but have been told its a staff job. Facilities and maintenance claim they don't have the money or manpower to do the work. Funds were requested via the Program Review process last year for bridge repair on the DN campus but were denied. Since then, the EKA Biology program has been bequeathed \$60,000 to be spent at the discretion of K Reiss and J Hogue. Directing those funds towards restoration and maintenance of the outdoor campus in EKA is most in keeping with the wishes of the deceased, but it is not enough money to do all that needs to be done on either campuses. Our plan this	been bequeathed, student clubs are ready to work at EKA and Del Norte, students have created interpretive materials for nature trails, new land is being made available due to building demolition at EKA, portions of the Food Forest project at Del Norte have been	Unfortunately, no impact yet.	Edit
	restoration and maintenance of the outdoor campus in EKA is most in keeping with the wishes of the deceased, but it is not enough money to do all that	being made available due to building demolition at EKA, portions of the Food		

	Maintain hands-on learning opportunities in human			
	anatomy. Our pre-nursing students are fortunate to			
	have the opportunity to learn anatomy with human			
	cadavers, and many many studies have shown that			
	there is no substitute. Also, we conduct regular	Arrangements for a new cadaver have		
	"cadaver lab tours" for CR art classes, local high school	been made and s/he will be transported	Spring 2020 students will	
2	students, Coast Guard chopper medics, dancers, yoga	to the Eureka Campus in December.	benefit from the new cadaver	Edit
Z	teachers, and massage therapists. Our cadavers are	However, to maintain viability, our	arriving at the Eureka Campus	Euit
	loaned to us for a 3-5 year period, and we must stagger	program needs a new cadaver every 36	this December.	
	purchases of new cadavers so there is time to do the	months-2 years.		
	prosections that make them valuable to students.			
	Otherwise, the anatomy lab is cleared out of all			
	teaching materials all at once. We are on the 5th year of			
	one cadaver so it is time to acquire a replacement.			

3	Develop degrees and revise curriculum in accordance with student needs. We are currently in the process of determining the best way to proceed with respect to a degree in environmental science, since HSU's program and the TMC are quite different from one another but many students are interested in this field. We are in the middle of discussions with the Program Viability Committee, and will soon meet with the Chair of Environmental Science at HSU to determine how to best proceed. Also, we are getting greater numbers of kinesiology students in the pre-nursing courses and need to consider developing separate courses or sections with different emphases than for pre-nurses.	The Environmental Science AS-T was approved by the PVC. The program is being developed in eLumen for submission to the curriculum committee. An advising sheet has been created for students interested in transferring to HSU. This advising sheet includes course transfer agreements established in a meeting with the HSU Environmental Science chair.	The impact of this new degree has yet to be determined.	Edit
4	Pilot writing tutorial. The online writing tutorial we conceived of last year was put on hold while the lead faculty (K Reiss) was on sabbatical, but it is in draft form now. We plan to edit and upload this draft this semester, and pilot it with real students in Spring of 2019.	This project has been redirected. Instead of a writing tutorial, the department has 1) developed a writing support course for one of the writing-intensive BIOL courses, Human Physiology, 2) Science faculty are participating in an interdisciplinary writing support program through the ASC, and 3) Biology faculty are spearheading efforts to create a STEM-major Core Course which will include writing.	This plan has been redirected.	Edit

5	Discuss and develop a coordinated approach to supplemental instruction in biology, in light of AB 705 and past departmental conversations about roadblocks to student success in science.	Biology faculty are leading an effort to create a STEM-major Core Course which will introduce students to STEM fields, faculty, essential skills, and potential careers. Meetings with interested STEM faculty have begun, curriculum is being developed, and faculty hope to pilot the	No impact to date, but this project has the potential to be a keystone in the Guided Pathway initiative.	Edit
		course in Fall 2020.		
6	Maintain adequate night and summer offerings of pre- nursing curriculum.	Evening sections of BIOL 1, 2, 6, and 7, and CHEM-2 have been offered so that students are able to complete the pre- nursing pre-requisites within two years, taking only night courses. Additionally, summer sections of BIOL 1 (online and face-to-face), BIOL 2, and BIOL 6 have been offered for several years.	Students have been able to take all of the BIOL and CHEM pre-nursing courses during evenings and summer. However, there is an as yet unresolved toll on our budget and stockroom support. We cannot continue these offerings without increased budgetary support.	Edit

7	Establish a plan for microscope maintenance. Academy of the Redwoods has requested to use the microscopes for their biology course. We would like to encourage AR to use the microscopes and aid their students in developing these skills. Microscope maintenance was performed on a regular, rotational basis by a local source that is no longer available. The added use and loss of regular, local maintenance will require a new plan for keeping these essential tools in working condition.	This plan was not funded by the district. We currently have no funding to repair or maintain our microscopes.		Edit
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8	currently 4 core courses developed at Pelican Bay that would allow students to choose the science exploration degree option (Biol-1, Biol-27, Geol-10, and Math-15). developing a fifth course, Biol-9 (Plants and People),	Reactivation of BIOL 9 was approved in Spring 2019. GEOL 10 and BIOL 1 are scheduled to be taught at PB during the 19-20 academic year. BIOL 9 is being developed and will be taught at PB in Spring 2020.	PB students will have the opportunity to take BIOL 1, BIOL 27, BIOL 9, GEOL 10, and MATH 15 as part of a two year rotation. An additional 1-unit special topics course will be developed to allow a full 18 units for the SciEX LA degree. As of yet BIOL 9 and GEOL 10 have not been offered at PB due to the lack of instructors willing to teach these courses at this site.	Edit
9	Biol-4 is one of three required core courses for the new	BIOL-4 (General Zoology) was offered at the DN campus Spring 2019.	DN students who took BIOL-4 in the Spring are one step closer to completing the core biology courses required for Biology ADT.	Edit

10	Provide a more dynamic learning experience in the DN Science lecture room. This includes providing students with the ability to learn from both whiteboard notes and projected images simultaneously. The intent is to create an environment where course outcomes related to visual and conceptual information can be better achieved. In science lab 26 @ CRDN, replace white board and projector screen with SmartBoard, flat-panel TV, and up-to-date instructor`s PC. This is because it is currently nearly impossible to use the white board while projecting content (due to massive reflections off the non-SmartBoard white board, and due to the fact that the projection screen covers the white board entirely when used) yet simultaneous board & projector usage is needed for chemistry and geology labs taught in that room. The solution is to bring the technology in this room up to the same standard as in other such labs elsewhere in the District.	The upgrades to DN Science room were evaluated during the 19-20 academic year, and the project was ranked high in the budget analysis. However, because of timing, the project was not funded in the 18-19 budget year. The plan will be	No impact yet. This project has been resubmitted in this year's Program Review.	Edit
11		approval was too late for a purchase to	No impact yet. This project has been resubmitted in this year's	Edit
	lab (DM-26) with new chairs.	be completed. This plan will be re- entered into the 19-20 program review.	Program Review.	

in BIOL2 Microbiology budget decisions. using these Fall 2019. Assessment data for this	budget decisions.
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4.2 Describe how resources provided in support of the plan(s) contributed to program improvement:

The only resources provided were a new cadaver and a classroom set of Bergey's manuals. Both of these contribute to improvements in the pre-nursing program by maintaining an environment in which students can actively participate and learn in a hands-on fashion, using cadavers to study human anatomy and using hypothetico-deductive reasoning to identify micro-organisms.

The far greater impact on our program, however, is the impact of resources NOT provided. The Del Norte biology lab continues to lag behind Eureka in its technical capabilities and ergonomic and student-centered learning environment. Students in Eureka biology, environmental science, and forestry programs are still unable to access the extraordinary living laboratory that is our outdoor campus and ponds. Students in all biology programs continue to struggle with microscopes that fall into a steady stream of disrepair with no likelihood of servicing on the horizon.