

## **PROGRAM REVIEW**

## Instructional Program Reviev Template

Year : 2020-2021 •	Plan Type: (select a plan type) 🗸	Program : Biological & Environmental Sciences		V	Save My Work	
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Program Information	Data Critical Refle Analysis Assessment		Resour Planning Reques		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	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.	This project was approved for	Students and faculty continue to utilize a whiteboard and projection unit which are awkwardly matched for the classroom. It would be wise to consult with IT before additional hardware is purchased for this situation.	Edit
2	Provide an effective learning experience in the Del Norte Science lab (old lab - room DM26). This requires ergonomic setting where students can work at raised lab benches without the distractions of failing furniture.	New chairs were purchased, however they were not installed prior to remote learning during the Spring 2020 semester.	The chairs were installed after remote learning in Spring 2020 semester, so the impact on student outcomes has yet to be observed.	Edit

3

Provide regular care and maintenance for the microscopes used throughout the district. This includes over 100 compound and 70 dissecting microscopes. These scopes represent an enormous investment by the district (~\$300,000) but without regular maintenance, the scopes will no longer function properly and students will be unable to attain fundamental learning objectives.

No funding has yet been allotted for this plan, put forth in 2018-2019 and ranked as our top priority in 2019-2020. Microscopes are still in need of maintenance and now would be an excellent time to do it. As we will be online during the spring 2020 semester, maintenance of the microscopes would not would during a standard, face-to-face semester.

There are not 24 functioning microscopes in each lab. In full sections, some students must share microscopes or work with microscopes that have significant operational issues. This impedes student success and their ability to develop an understanding of the compound microscope, which is essential for the following SLOs: BIOL 1 SLO #2, BIOL 2 SLO #1, BIOL 3 SLO #1, BIOL 4 SLOs #2 and #4, BIOL 5 SLO #1 and #4, BIOL 6 SLO #1, BIOL 7 SLO #2 and #3, and BIOL 8 SLO #2. In addition, our ISS must devote time that she does not have to disrupt use for students, as it perform temporary repairs and upkeep to try to keep them functioning. The lack of microscope maintenance puts a strain on everyone: students, staff, and faculty.

Edit

1	1	1	1	
		A full selection of night		
		classes was offered in 19-20.		
		In addition, when classes		
	Continue to provide the diverse community of	were moved online due to		
4	potential health occupations students access to the	COVID-19, faculty began	CR students continue to sign up for and	Edit
4	courses needed to apply to CR's various healthcare	developing online options for	complete BIOL-1, 2, 6, 7, and 8.	Edit
	programs.	all pre-health pre-reqs. This		
		will increase access,		
		regardless of global		
		pandemics.		
		Moving online has provided a		
		new challenge for biology		
		and environmental science		
		faculty. Faculty are	Models were purchased to facilitate active	
	Promote and support active learning in biology	developing lab kits, at home	learning. These purchases happened over	
5	classes.	laboratory activities, videos	the summer, and we have not had the	Edit
	Classes.	of experiments, virtual field	chance to use them since moving our	
		trips, digital lab manuals, and	classes online.	
		a variety of other methods to		
		keep students engaged in		
		active learning.		

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6	Assess the effectiveness of our pre-RN program and compare our students to national trends, especially focusing on the identification of existing equity gaps.	to all Eureka BIOL-7 sections. This is an ongoing project	Fewer students took the HAPS exam in Sp20, most likely due to the online proctoring required to administer the exam. We've begun collecting data that will help us analyze the impacts of online courses on student learning.	Edit
7	Establish a seed library at the Del Norte campus to promote sustainable food growing that will support students at DN and PB sites as well as the food forest initiatives on campus co-sponsored by the Community Food Council of Del Norte and Tribal Lands (DNATL).		Seed packets have been distributed to students at the Pelican Bay Garden Club, but other students have not been able to use this resource due to Covid-19.	Edit
8	Institute BIOL-3 prerequisite for the core biology majors' courses (BIOL-4 and BIOL-5). If approved, update the curriculum for these core biology courses.	Complete	In the short term, this appears to have led to a greatly reduced number of students registering for BIOL-4 and BIOL-5 for Fall 2020. Pre-requisite waivers were granted for students wanting to take BIOL-4. BIOL-5 was postponed until Spring 2021. The move to online format for majors' courses due to Covid-19 was also a likely factor in the low enrollments.	Edit

9	Contribute to the Guided Pathways initiative by defining the "meta-majors" or Guided Pathways within Biology and Science, and sequencing courses in existing degree programs.	Ongoing	Biology faculty and students continue to experience frustration that, despite having a clear guided pathway for the Biology ADT, some students are still being advised to take BIOL-1 (which is not a part of the ADT).	Edit
10	Develop and pilot a STEM major Core Course for STEM majors as part of the Guided Pathways initiative.	Ongoing, with some delay due to the pandemic.	A STEM Core Course will have the effect of creating a learning community of students and faculty with overlapping interests, introduce students to faculty both as people and professionals, familiarize students with the variety of paths and careers within STEM, and help them develop a toolkit of learning strategies, STEM skills, and life skills. This is expected to improve retention, success, and number of degrees awarded.	Edit
11	Continue discussions related to creating a pre-nursing program, whether via a Degree or Guided Pathway.	Ongoing	A degree/pathway has not been established.  Pre-RN students continue to get the Science degree, if they get a degree before completing the nursing program.	Edit

## 4.2 Describe how resources provided in support of the plan(s) contributed to program improvement:

Resources were provided for the following plans: 2, 4, 5, and 6.

Plan 2: The chairs were installed after remote learning in Spring 2020 semester, so the impact on student outcomes has yet to be observed.

Plan 4: Resources were provided to offer BIOL-2 over the summer, although the course was taught online, so the cost was drastically reduced.

Plan 5: We were awarded funds to purchase Anatomy in Clay models that allow students to build clay models of anatomical structures and place them on anatomically accurate skeletons. Unfortunately, we've not been able to use them, as all courses have been taught online beginning in summer 2020.

Plan 6: HAPS exam data was collected in F19 like normal for Eureka BIOL-7 sections. We were also able to collect data in Sp20, because we were able to take advantage of remote proctoring options offered by HAPS and a proctoring company called