



# PROGRAM REVIEW

## Instructional Program Review Template

Year : 
 Plan Type: 
 Program :

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- Program Information
- Data Analysis
- Critical Reflection of Assessment Activities
- Evaluation of Previous Plans
- Planning
- Resource Requests
- 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

1	Offer Biol-1 (General Biology) course at Pelican Bay State Prison. It is important that students at PB have the opportunity to take a science course with a laboratory experience in order to fulfill CSU transfer agreements.	BIOL-1 is currently being taught at Pelican Bay State Prison. The course has 25 students enrolled and will be offered again in the Spring 2019 semester. It is anticipated that three sections of this course will be offered on an annual basis at Pelican Bay. All materials for this course were funded through the Pelican Bay Innovation grant.	This course will allow incarcerated students to complete the "lab science" requirement of transfer program GE requirements. This course will also allow students to pursue the AA: LA Science Exploration degree option.	<a href="#">Edit</a>
2	Increase student success by replacing anatomical parts for human multi-torso model at the DN campus.	Students in the Biol-6 (human anatomy) and Biol-8 (human biology) courses continue to utilize the human multi-torso model without its genitalia and heart models. Pictures of genitalia and heart are used in place of real or 3-D models of these structures. This plan was not funded in program review.	Lack of 3-D models or real specimens makes it more difficult for students to learn the anatomical structures required for these courses. Assessment data for students who do not have access to these resources remain uncomparable to those who do have access as those resources are not available to students at the DN campus.	<a href="#">Edit</a>
3	Improve the learning environment in the old Del Norte science lab (DM-26) with new chairs.	This classroom continues to be utilized for chemistry, geology, and environmental science courses offered at Del Norte. Last year this room was also utilized by the TRiO program. Over 100 students utilize this classroom every academic year. This plan was not funded in program review.	The continued use of the old chairs remains an obstacle for student comfort and ultimately student success in courses that utilize this classroom.	<a href="#">Edit</a>

4	Improve access to the on-campus community forest. The community forest is an outdoor laboratory used for Environmental Science, Natural History, and General Biology lab courses. There currently is no safe way to cross the creek as the previous foot bridge has rotted away.	This has been investigated, but there does not appear to be adequate funding to pursue this to bring the bridge up to code. It was not funded in program review.	The forest continues to be a resource utilized by biology and environmental science lab courses taught at the Del Norte campus. A recent field excursion by the Mushrooms of the North Coast class (Biol-21) in Fall 2019 discovered over 20 species of mushrooms in the forest. The Spring 2018 Environmental Science course (EnvSci-10) sampled water quality, conducted faunal surveys, and utilized the forest during several lab activities. Students from the 2018 microbiology course (Biol-2) sampled water from the forest for microbial contaminants.	<input type="button" value="Edit"/>
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<p>5</p>	<p>Develop a Canvas-based tutorial for students on how to critically read and logically answer written exam questions, and how to write scientific papers. Students' difficulties with these skills are the subject of ongoing dialog about asesessment results in a wide variety of CLOs and courses. We recognize that students can't think or write clearly when they can't recognize clear thinking and writing. The tutorial will use real examples of student responses to exam questions in a quiz-styled tutorial to help them discern between critical analysis with logical exposition and muddled thinking.</p>	<p>This tutorial is currently being drafted and we hope it will "go live" for Spring 2019.</p>	<p>If the tutorial is successful, it will result in an increase in student success in biology classes that use written exams. Students will be able to convey more incisively what they understand, rather than losing points due to a careless approach to written answers.</p>	<p>Edit</p>
<p>6</p>	<p>Develop and provide promotional flyers for the Biology AS-T degree. This is combined with the request to include "magazine style" racks in the academic buildings to promote these degrees.</p>	<p>Associate Degree for Transfer, Biology fliers were designed and are being distributed. Fliers feature one photo taken by a faculty member and another photo taken by a former CR student. The student photo is of two other former CR students. Flyers are currently on display in multiple locations.</p>	<p>Fliers are newly available so no impact can yet be assessed. However, they were prominently displayed at Science Night and the three former students involved (see left), all of whom are now at HSU, are delighted both by the opportunity to participate in the creation of the flyer, as well as by the ADT.</p>	<p>Edit</p>

7	Provide course and program oversight and discipline expertise by hiring a full time biologist with expertise in botany and environmental science to replace Dr. Jeff Hogue, who retired in Spring 2017.	The position was approved and a new full-time, tenure-track professor in biology, with a specialty in botany and environmental science, was appointed Spring 2018.	Allows Eureka Campus BIOL-5 (botany) and ENVSC-10 (Intro to Environmental Science) to be taught and overseen by full-time faculty. This is important to our ADT-Biology and planned ADT-Environmental Science.	<input type="button" value="Edit"/>
8	Enable hands-on learning with live animals in the field, in the lab, as well as the continued maintenance, specimen replacement, and growth of the of the teaching collection by funding applications for CA Fish and Wildlife Scientific Collecting Permits for Christopher Callahan (DN) and Karen Reiss (EKA)	A California Fish and Wildlife Scientific Collecting Permit (CDFW SCP) was awarded to Karen Reiss in June 2018 and is valid for three years. A CDFW SCP was submitted by Christopher Callahan and is currently under review with CDFW. If the permit is granted, funds will be covered by the Dean's office for this item.	These permits enable our two organismal biology faculty to salvage roadkill (for preparation of osteological specimens), collect live marine invertebrates and vertebrates (for in-the-field and in-the-lab demonstration of live animal anatomy and behavior), and (for KZR) the collection and euthanasia of chipmunks for research. These activities support student learning in BIOL 1 - General Biology, BIOL 4 - General Zoology, BIOL 15 - Marine Biology, and BIOL 18 - Natural History of North Coast Mammals.	<input type="button" value="Edit"/>

9	<p>Offer Biology-4 (General Zoology) at the Del Norte Education Center to support the new AS-T in Biology. Biol-4 is one of three required core courses for the new AS-T.</p> <p>There are currently no core biology courses offered to students in DN.</p>	<p>This course is on the schedule for Spring 2019. There are currently 11 students enrolled and it is anticipated that more students will enroll before the start of the semester. Textbook adoption, resource acquisitions (e.g., specimen collection and scientific collector's permit), and curriculum are currently being developed by C. Callahan. Options to acquire microscope slides needed for this course are being pursued either for purchase or on-loan from the Eureka campus.</p>	<p>Students have started to enroll in this spring section. This should aid them in completing the requirements to successfully transfer as a life-science major.</p>	<input type="button" value="Edit"/>
10	<p>Increase student success by providing classroom and library access to vital reference materials supporting their major laboratory project.</p>	<p>Two Bergey's Manuals are available in the library; one copy is available in the classroom. These must serve the needs of 50-75 students per semester and 25 students during summer session.</p>	<p>Faculty have not collected specific assessment results speaking to impact of lack of Bergey's manual in classroom.</p>	<input type="button" value="Edit"/>

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

Much of the funding that enabled completion of the above plans did not originate from the Program Review process, which can be interpreted as evidence of our department's "where there's a will there's a way" attitude. Despite the fact that our resource requests are rarely ranked high enough to receive funding, we have been imaginative/fortunate enough to secure a variety of sources of funding that have positively impacted our programs. For example:

- A SARTCO agreement was written to provide a stipend for development of the materials to produce the Pelican Bay BIOL 1 lab (Plan #1). Creating the lab in this environment required a rewrite of many labs and research into alternative materials and labs that could be implemented at the prison. Much of this work was done during Summer 2018 and could not have been completed without this supplemental funding.
- District funding was approved for the new full-time, tenure-track faculty position. The new faculty member is responsible for BIOL-5 (Botany), a core course for the Biology ADT, and EnvSc 10 (Intro to Environmental Science), a core course for the planned