

PVC Program Review Annual Snapshot

Division: **Math and Science**

Date of Report:

	Course Completion Rate	AY2017-18		AY2018-19		AY2019-20		AY2020-21		AY2021-22	
Student Characteristics	Female	50.0%	248/496	48.6%	212/436	47.9%	197/411	64.9%	229/353	61.4%	196/319
	Male	60.4%	879/1455	57.2%	812/1420	57.3%	606/1058	64.5%	897/1390	67.1%	925/1379
	Asian/Pac Island	71.8%	56/78	57.1%	68/119	58.9%	43/73	80.2%	81/101	71.4%	60/84
	African-Am	50.2%	142/283	49.4%	152/308	45.1%	102/237	56.8%	146/257	55.0%	138/251
	Hawaiian/Nat Am	55.6%	25/45	56.8%	25/44	69.4%	25/36	69.7%	23/33	80.5%	33/41
	Hispanic	56.1%	548/976	54.7%	473/864	55.4%	393/709	63.0%	556/882	64.6%	552/855
	Other, Non-white	NR	NR	NR	NR	NR	NR	NR	NR	NR	<10
	White	64.1%	330/515	60.5%	299/494	57.0%	216/379	70.0%	296/423	74.2%	311/419
	Inmate	61.9%	740/1196	57.0%	715/1254	57.2%	515/900	65.7%	836/1273	67.9%	835/1229
	Disabled	68.4%	378/553	64.7%	355/549	65.9%	350/531	72.4%	451/623	NR	NR
	Foster	NR	NR	54.5%	6/11	NR	<10	NR	<10	NR	NR
	Veteran	68.8%	22/32	70.8%	17/24	50.0%	10/20	77.3%	17/22	NR	NR

Significant Findings:

Conclusions and Next Steps:

Future Program Needs			AY2021-22	AY2022-23	AY2023-24	AY2024-25
	Human Resources					
	Fiscal Resources					
	Physical Resources					
	Technology Resources					

Improvements Based on Preceding Academic Year's SLO Assessments

Ideas or Suggestions on How to Reach the 70% Institutional Retention Standard Rate per Division

According to the institutional retention standards rate is 70%. Our percentages are slightly below compare to the institutional retention standards rate. Even though our percentages have continuously improved compared to the previous academic years, still we want to exceed the 70% benchmark. In order to exceed the 70% mark, the division of math and science focus on effective strategies to reach this goal.

Problems: Rates below completion (70%)

The completion rates in math and geosciences have been significantly low below 70% and have caused overall completion rates in the division to be below 70% mark. However, we note that during the last four annual evaluation cycles they have been steadily improving towards 70% mark.

The main cause for low completion rates, as we note are the following:

No tutoring for inmates (correspondence) and for community students in the science, currently there is only tutoring services for math in face-to-face modality. In addition, there are no prerequisites for many science classes including Human Anatomy and Physiology (no current prerequisites of Biology 100, Biology 190 and/or Biology 191); Chemistry and Physics due to AB 705 (low math and English proficiency among many students).

Strategies to exceed the 70% mark:

Adding pre-requisites for Human anatomy, Human Physiology, Chemistry, and Physics courses to increase completion rates. Implementing tutoring services on campus and online for chemistry, biology and geosciences in addition to math classes. Ensuring higher standards of Basic skills in math and English, which will benefit all the subject areas in our division. More technology in classrooms (eg. Technology lab incorporated instrumentation, data acquisition systems, computer aided measuring systems, software simulations.) Improve the common classroom technology resource (eg. Projectors, computer facilities, etc.) Keep track of student's progress, focus on difficulties, and provide timely feedback to students.

Some instructors from our division have noted that completion rates have dropped due to failing students for academic misconduct (cheating and plagiarism); we recommend providing material to correspondence students informing them of academic honesty and on how to properly cite their sources and avoid plagiarism. In addition, video or audio recordings for incarcerated students to help support their learning. We are not supporting all learning styles for these students, and this appears to be an equity issue. Some students struggle to understand the material and it would help to have video recordings if CDCR would be able to show to students each week. We are continuing to implement OER resources where applicable, which have proved to be effective and further request funding for additional academic support material where OER material is not available.

Human Resources: The geoscience department recommends the hire of a new full-time faculty member. Also, increase the number of faculty (full-time and part-time) for all the departments within the division to accommodate for the demands of the nursing and any other new program.

Fiscal Resources: Funds/budget for equipment for all departments as needed (eg. microscopes, models, biopac system, chemicals, etc.)

Physical Resources: As needed, to accommodate for increase in students' enrollment and course sections.

Technology Resources: In addition to the recommendation for the academic year 2022-2023, it is necessary to revalidate the certification of online teaching status of faculty members who are already certified, by completing an additional 10 hours of @ONE training. Additionally, it would be beneficial for incarcerated students, if educational CDs and DVDs are provided to CDCR, for their use.