

Program or Area(s) of Study under Review:

HEALTH OCCUPATIONS

Summary of Program Review:

A. Major Findings

1. Strengths:

Courses provide preparatory work for entry into the Psychiatric Technician, Vocational Nursing, and EMT/Paramedic programs.

2. Areas for Improvement:

The courses are adequate for the preparatory phase of the programs. However, would like to offer more of these courses to further support students preparing for the VN, PTEC, and EMT/Paramedic programs. The pandemic resulted in fewer opportunities for students moving into these programs thus resulting in a reduction of offerings. Review and update of the curriculum will be initiated.

3. Projected Program Growth, Stability, or Viability:

The series of courses with the HEOC label are not discipline-specific. Three of the courses are pre-requisites to programs that are certificate programs. As such, these courses are expected to maintain a stable level of enrollments moving forward.

B. Program's Support of Institutional Mission and Goals

1. Description of Alignment between Program and Institutional Mission:

The courses align with the overall mission of the institution and the goals of the programs as entry-level preparation for healthcare.

2. Assessment of Program's Recent Contributions to Institutional Mission:

Provides opportunity for students to enter healthcare professions. These are entry-level programs that often lead to advanced study and advanced credentials as the individual grows in the profession.

3. Recent Program Activities Promoting the Goals of the Institutional Strategic Plan and Other Institutional Plans/Initiatives:

N/A

C. New Objectives/Goals:

Increase the number of course offerings as related to the demand as the pandemic recedes.

D. Description of Process Used to Ensure "Inclusive Program Review"

These courses are specific to the entry-level programs as preparatory and are not a program.

This report covers the following program, degrees, certificates, area(s) of study, and courses (based on the Taxonomy of Programs on file with the Office of Academic Affairs):

Program	Health Occupations
Courses	HEOC 97
	HEOC 100
	HEOC 101
	HEOC 171
	HEOC 172
	HEOC 372

Taxonomy of Programs, July 2022

I. PROGRAM DATA

A. Demand

1. Headcount and Enrollment

	2019-2020	2020-2021	2021-2022	Change over 3-Year Period
Headcount				
Within the Program	525	541	456	-13.1%
Across the Institution	8,181	7,208	6,714	-17.9%
Enrollments				
HEOC-100	244	251	233	-4.5%
HEOC-101	226	215	124	-45.1%
HEOC-171	142	156	134	-5.6%
HEOC-172	108	117	107	-0.9%
HEOC-372	--	19	8	--
Within the Program	720	758	606	-15.8%
Across the Institution	33,102	30,409	25,580	-22.7%
<i>Source: SQL Enrollment Files</i>				

RPIE Analysis: The number of students enrolled (headcount) in the Health Occupations Program decreased by 13.1% over the past three years, while headcount across the institution decreased by 17.9%. Enrollment within the Health Occupations Program decreased by 15.8%, while enrollment across the institution decreased by 22.7%.

Enrollment in the following course changed by more than 10% (±10%) between 2019-2020 and 2021-2022:

- Course with an enrollment decrease:*
 - *HEOC-101 (-45.1%)*

For HEOC-372, which was offered in two of the past three years, enrollments decreased by 57.9% between 2020-2021 and 2021-2022.

Program Reflection:

There are two primary reasons for the reduction in enrollments: (1) the cycle of admissions for the Psychiatric Technician and the Vocational Nursing programs are asynchronous, and (2) the pandemic reduced demand for the courses as the uncertainty of entry into healthcare programs created a reduction in the number of sections.

This is particularly true as illustrated in the reduction of students in HEOC 101 – Pharmacology. This course is a prerequisite for both PTEC and VN and we have noticed a reduced demand in the number of students interested in these two programs. Thus, the resulting reduction in the demand for sections results in fewer students needing to take the course.

2. Average Class Size

	2019-2020		2020-2021		2021-2022		Three-Year	
	Sections	Average Size	Sections	Average Size	Sections	Average Size	Average Section Size	Trend
HEOC-100	7	34.9	7	35.9	7	33.3	34.7	-4.5%
HEOC-101	6	37.7	6	35.8	3	41.3	37.7	9.7%
HEOC-171	4	35.5	4	39.0	4	33.5	36.0	-5.6%
HEOC-172	3	36.0	3	39.0	3	35.7	36.9	-0.9%
HEOC-372	--	--	2	9.5	1	8.0	9.0	--
Program Average*	20	36.0	22	34.5	18	33.7	34.7	-6.5%
Institutional Average*	1,348	24.6	1,171	25.9	1,105	23.1	24.6	-6.1%

Source: SQL Enrollment and Course Sections Files

Average Section Size across the three-year period for courses, and both within academic years and across the three-year period for the program and institutional levels is calculated as:

$$\frac{\text{Total \# Enrollments.}}{\text{Total \# Sections}}$$

It is not the average of the three annual averages.

***RPIE Analysis:** Over the past three years, the Health Occupations Program has claimed an average of 34.7 students per section. The average class size in the program has been higher than the average class size of 24.6 students per section across the institution during this period. Average class size in the program decreased by 6.5% between 2019-2020 and 2021-2022. Average class size at the institutional level decreased by 6.1% over the same period. No courses in the Health Occupations Program claimed changes in average class size of 10% (±10%) over the past three years.*

For HEOC-372, which was offered in two of the past three years, average class size decreased by 15.8% between 2020-2021 and 2021-2022.

Program Reflection:

The pandemic resulted in fewer section(s) but with a few more students overall in the courses. This does fluctuate a bit, but the overall enrollments are steady and robust. We are looking to add more sections to address what we hope will be an increase in demand soon.

Due to the nature of the specific population and specificity of the curriculum, HEOC 372 will rarely have significant enrollments. However, it is a course that is used for specialized certification for vocational nurses and is utilized as a refresher for registered nurses. Thus, students must possess these licenses to take this course.

3. Fill Rate and Productivity

Fill Rate*			
	Enrollments*	Capacity	Fill Rate
2019-2020	526	526	100%
2020-2021	513	567	90.5%
2021-2022	451	477	94.5%
Three-Year Program Total	1,490	1,570	94.9%
Institutional Level	79,507	106,455	74.7%
Productivity*			
	FTES	FTEF	Productivity
2019-2020	63.2	3.1	20.4
2020-2021	71.0	4.2	16.9
2021-2022	49.6	3.5	14.2
Three-Year Program Total	183.8	10.8	17.0
<i>Source: SQL Enrollment and Course Sections Files</i>			

***RPIE Analysis:** Fill rates within the Health Occupations Program tend to be higher than the fill rate at the institutional level. [Compare program-level rate of 94.9% to institution-level rate of 74.7% over the past three years.] Between 2019-2020 and 2020-2021, enrollment decreased while capacity increased, resulting in a decrease in fill rate. Between 2020-2021 and 2021-2022, both enrollment and capacity decreased, resulting in an increase in fill rate (due to a higher rate of decrease in capacity).*

Productivity ranged from 14.2 to 20.4 over the past three years. [Productivity has not been calculated at the institutional level.] The three-year program productivity of 17.0 reflects the target level of 17.5, which reflects 1 FTEF (full-time equivalent faculty) accounting for 17.5 FTES (full-time equivalent students) across the academic year. (This target reflects 525 weekly student contact hours for one full-time student across the academic year.)

**Note: Fill rates and productivity reported in the table do not include 19 Health Occupations section offerings for summer terms over the past three years. As a result, the enrollment figures reported here might differ from those reported in Section I.A.1.*

Program Reflection:

The productivity rates are reflective of the changes in number of sections and the number of students in each section (the decreased enrollment due to limiting the number of sections in connection with the increased numbers of students in a single section).

4. Labor Market Demand

This section does not apply to the Health Occupations Program, as the Occupational Classification Descriptions in the Economic Development Department Labor Market Information provided by the State of California do not align directly with the program.

Program Reflection:

N/A

B. Momentum

1. Retention and Successful Course Completion Rates

Level	Retention Rates (Across Three Years)			Successful Course Completion Rates (Across Three Years)		
	Rate	Course Rate vs. Program Rate		Rate	Course Rate vs. Program Rate	
		Above	Below		Above	Below
HEOC-100	92.6%	--	--	78.9%		X
HEOC-101	93.9%	--	--	77.3%		X
HEOC-171	96.5%	X		85.4%	X	
HEOC-172	89.0%		X	77.7%		X
HEOC-372	100%	X		100%	X	
Program Level	93.3%			79.9%		
Institutional Level	90.4%			74.8%		

Source: SQL Enrollment Files
 -- Indicates a value that is within 1% of the program-level rate.
Bold italics denote a statistically significant difference between the course-level rate and the program-level rate.
Bold denotes a statistically significant difference between the program-level rate and the institutional rate.
Note: Grades of EW (Excused Withdrawal) for spring 2020 and beyond are not included in the calculations of the three-year retention and successful course completion rates reported above. This approach reflects the standard recommended research practice of not including EWs in either the numerator or the denominator for these rates.

RPIE Analysis: Over the past three years, the retention rate for the Health Occupations Program was significantly higher than the rate at the institutional level. The retention

rates for HEOC-172 was significantly lower than the program-level rate. The retention rate for HEOC-171 was significantly higher than the program-level rate. The retention rate for the Health Occupations Program falls in the third quartile (Q3) among program-level retention rates (across 58 instructional programs, over the past three years). The retention rate for Health Occupations falls within the 50%-75% range of retention rates among NVC programs.

Over the past three years, the successful course completion rate for the Health Occupations Program was significantly higher than the rate at the institutional level. The successful course completion rates for HEOC-171 and HEOC-372 were significantly higher than the program-level rate. The successful course completion rate for the Health Occupations Program falls in the third quartile (Q3) among program-level successful course completion rates (across 58 instructional programs, over the past three years). The successful course completion rate for Health Occupations falls within the 50%-75% range of successful course completion rates among NVC programs.

Over the past three years, the difference between retention and successful course completion at the program level (13.4%) was significantly lower than the difference at the institutional level (15.6%). This figure represents the proportion of non-passing grades assigned to students (i.e., grades of D, F, I, NP).

The following Health Occupations Program courses claimed a difference (between retention and successful course completion) that exceeded 10%:

- HEOC-101 (16.6%)
- HEOC-100 (13.7%)
- HEOC-172 (11.3%)
- HEOC-171 (11.1%)

Program Reflection:

The students enrolled in these courses are generally motivated to complete due to the goal of application and acceptance into the EMS/Paramedic, Vocational Nursing, or Psychiatric Technician programs. We do note that, although these courses have been predominantly offered in the online environment prior to the pandemic, the impact of the pandemic in successful course completion is shown. Students have been stressed and have manifested the stress by exhibiting less than successful course completion rates, albeit still well within the established expectations/performance at the institutional level.

2. Student Equity

	Retention Rates (Across Three Years)		Successful Course Completion Rates (Across Three Years)	
	Program Level	Institution Level	Program Level	Institution Level
African American/Black	93.7%	87.5%	74.7%	66.6%
Latinx/Hispanic			77.4%	71.2%
First Generation			78.9%	73.9%
Veteran			68.9%	72.6%
19 or less			79.8%	73.1%

Source: SQL Enrollment Files

Bold italics denote a statistically significant difference between rates at the program and institutional levels, with the lower of the two rates in **bold italics**.

Shaded cells pertaining to retention rates indicate that statistically significant differences for those groups were not found at the institutional level.

Note: Grades of EW (Excused Withdrawal) for spring 2020 and beyond are not included in the calculations of the three-year retention and successful course completion rates reported above. This approach reflects the standard recommended research practice of not including EWs in either the numerator or the denominator for these rates.

RPIE Analysis: This analysis of student equity focuses on the five demographic groups with significantly lower retention and/or successful course completion rates found at the institutional level (vs. the corresponding rates among all other demographic groups, combined) over the past three years. Tests of statistical significance were conducted to compare program-level and institution-level rates among the five groups listed above.

Within the Health Occupations Program, the retention rate among African American/Black students was significantly higher than the rate at the institutional level.

Within the Health Occupations Program, the successful course completion rate among Veteran students was lower than the rate at the institutional level. (The difference was not statistically significant.) The successful course completion rates among African Americans/Blacks, Latinx/Hispanics, First Generation students, and students ages 19 or less were significantly higher than the rates at the institutional level.

These patterns mirror the findings that emerged from the comparison of retention and successful course completion at the program vs. institutional level, where the program-level rates were significantly higher than the institution-level rates for both retention and successful course completion. (See Section I.B.1 above).

Program Reflection:

Students who enroll in these courses tend to have a higher motivation than the average student at the institution inasmuch as these courses are direct prerequisites for admission to the programs these courses serve. Regardless of the ethnicity of the students in these courses, the students exhibit a higher motivation to complete the course(s) to progress to the healthcare profession(s).

3. Retention and Successful Course Completion Rates by Delivery Mode (of Courses Taught through Multiple Delivery Modes, i.e., In-Person, Hybrid, and Online)

	Retention Rates (Across Three Years)			Successful Course Completion Rates (Across Three Years)		
	In-Person	Hybrid	Online	In-Person	Hybrid	Online
HEOC-101	100%		91.2%	100%		74.6%
Program Total						
In-person vs. Online	100%		91.2%	100%		74.6%
Institutional Total						
In-person vs. Online	85.1%		81.5%	72.2%		63.2%
<i>Source: SQL Course Sections Files</i>						
This table compares student performance in courses offered through multiple delivery modes within the same academic year.						

Bold italics denote a significantly lower rate within that delivery mode.

Note: The analysis of retention and successful course completion by delivery mode does not include spring 2020 – spring 2021 because most courses shifted to an online/hybrid delivery mode beginning in spring 2020 due to the COVID-19 pandemic (thereby blurring the distinction between delivery modes).

RPIE Analysis: Over the past three years, one course within the Health Occupations Program has been offered through at least two delivery modes within the same academic year. In 2019-2020, HEOC-101 was offered through in-person and online formats. This analysis focuses on program-level rates. Details for the course level are reported in the table above.

Within the Health Occupations Program:

- *The retention rate in online sections was significantly lower than the retention rate in in-person sections. This pattern reflects the findings at the institutional level, where the retention rate in online sections was significantly lower than the rate in in-person sections.*

Within the Health Occupations Program:

- *The successful course completion rate in online sections was significantly lower than the successful course completion rate in in-person sections. This pattern reflects the findings at the institutional level, where the successful course completion rate in online sections was significantly lower than the rate in in-person sections.*

Program Reflection:

The single course that was offered in-person in Spring 2020 was a CCAP course that was offered at American Canyon High School. To that end, all students were on the campus each day and the course was part of their general education plan/day at the school. This mode of delivery, in the defined setting of a CCAP class, tends to yield this type of success.

C. Student Achievement

1. Program Completion

This section does not apply to the Health Occupations Program, as the program does not confer degrees or certificates, based on the most recent taxonomy (July 2022).

2. Program-Set Standards: Job Placement and Licensure Exam Pass Rates

This section does not apply to the Health Occupations Program, as the discipline is not included in the Perkins IV/Career Technical Education data provided by the California Community Colleges Chancellor's Office, and licensure exams are not required for jobs associated with the general discipline.

I. CURRICULUM

A. Courses

Subject	Course Number	Date of Last Review <i>(Courses with last review dates of 6 years or more must be scheduled for immediate review)</i>	Has Prerequisite* Yes/No & Data of Last Review	In Need of Revision <i>Indicate Non-Substantive (NS) or Substantive (S) & Academic Year</i>	To Be Archived (as Obsolete, Outdated, or Irrelevant) & Academic Year	No Change
HEOC	97	None	No		Obsolete – SP 23	
HEOC	100	Fall 2021	NO	NO	NO	X
HEOC	101	Fall 2021	NO	NO	NO	X
HEOC	171	Spring 2021	NO	NO	NO	X
HEOC	172	Fall 2020	NO	NO	NO	X
HEOC	372	Fall 2019	YES	NO	NO	X

*As of fall 2018, prerequisites need to be validated (in subsequent process) through Curriculum Committee.

B. Degrees and Certificates⁺

Degree or Certificate & Title	Implementation Date	Has Documentation Yes/No	In Need of Revision+ and/or Missing Documentation & Academic Year	To Be Archived* (as Obsolete, Outdated, or Irrelevant) & Academic Year	No Change
NONE					

*As of fall 2018, discontinuance or archival of degrees or certificates must go through the Program Discontinuance or Archival Task Force.

⁺Degrees and Certificates cannot be implemented until the required courses in them are approved and active.

Program Reflection:

The courses within the HEOC area have been assessed within the last three years. Only one has prerequisite (HEOC 372) which is a credentialing prerequisite rather than a course prerequisite. The students must either be enrolled in the Vocational Nursing or Registered Nursing programs or hold a valid State of California license to practice as either of these healthcare professionals.

II. LEARNING OUTCOMES ASSESSMENT

A. Status of Learning Outcomes Assessment

Learning Outcomes Assessment at the Course Level

	Number of Courses with Outcomes Assessed		Proportion of Courses with Outcomes Assessed	
Number of Courses	Over Last 4 Years	Over Last 6 Years	Over Last 4 Years	Over Last 6 Years
6	5	5	83%	83%

Learning Outcomes Assessment at the Program/Degree/Certificate Level

Degree/Certificate	Number of Outcomes*	Number of Outcomes Assessed		Proportion of Outcomes Assessed	
		Over Last 4 Years	Over Last 6 Years	Over Last 4 Years	Over Last 6 Years
N/A					

Program Reflection:

Outcomes assessment is due for the courses which will be completed over the next several semesters to bring all courses into full compliance and to provide the opportunity update/revise to best provide students with up-to-date educational programming.

B. Summary of Learning Outcomes Assessment Findings and Actions

Program Reflection:

III. PROGRAM PLAN

Based on the information included in this document, the program is described as being in a state of:

- Viability
- Stability
- Growth

*Please select ONE of the above.

This evaluation of the state of the program is supported by the following parts of this report:

Program Data: 1. Section size 2. Fill rate and productivity Momentum: 1. Retention and successful completion rates 2. Student equity

Complete the table below to outline a three-year plan for the program, within the context of the current state of the program.

PROGRAM: HEALTH OCCUPATIONS

Plan Years: 2023-2024 through 2025-2026

Strategic Initiatives Emerging from Program Review	Relevant Section(s) of Report	Implementation Timeline: Activity/Activities & Date(s)	Measure(s) of Progress or Effectiveness
None to report			

Describe the current state of program resources relative to the plan outlined above. (Resources include: personnel, technology, equipment, facilities, operating budget, training, and library/learning materials.) Identify any anticipated resource needs (beyond the current levels) necessary to implement the plan outlined above.

Note: Resources to support program plans are allocated through the annual planning and budget process (not the program review process). The information included in this report will be used as a starting point, to inform the development of plans and resource requests submitted by the program over the next three years.

Description of Current Program Resources Relative to Plan:

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IV. PROGRAM HIGHLIGHTS

The program-level plan that emerged from the last review (spring 2020) included the following initiatives:

- Update Curriculum in HEOC 172

A. Accomplishments/Achievements Associated with Most Recent Three-Year Program-Level Plan

HEOC 172 was reviewed, and minor updates were made. Associated faculty found that the overall general content and delivery of HEOC 172 was consistent and no substantive changes were required as this course, and others, have been offered in an online mode for years prior to the pandemic. As such, the work of course revision/transition to online delivery was completed years ago. Minor changes in pedagogy have been made to all courses to better serve students.

B. Recent Improvements

None

C. Effective Practices

Completed by Supervising Administrator:

Robert Harris

Date:

11/2/2022

Strengths and successes of the program, as evidenced by analysis of data, outcomes assessment, and curriculum:

The series of courses show a significant demand, fill rate and productivity successes, retention and successful course completion rates, and are strong in student equity. These courses provide a solid foundation for further study as prerequisites to certificate programs in HEOC.

Areas of concern, if any:

1. Demand has decreased during the pandemic and we are hopeful that demand will return so that additional sections can be added. This would mark that students are returning to the healthcare pathways that have been a bit smothered during the pandemic.
2. Courses are staffed solely by adjuncts, other than HEOC 372.

Recommendations for improvement:

None

Anticipated Resource Needs:

Resource Type	Description of Need (Initial, Including Justification and Direct Linkage to State of the Program)
Personnel: Faculty	None
Personnel: Classified	None
Personnel: Admin/Confidential	None
Instructional Equipment	None
Instructional Technology	None
Facilities	None
Operating Budget	None
Professional Development/ Training	Culturally responsive pedagogical training as provided by Academic Senate.
Library & Learning Materials	None