Program Review Summary Page
For Instructional Programs

Program or Area(s) of Study under Review: Health Occupations – Non-Discipline Specific

Term/Year of Review: Spring 2020

Summary of Program Review:

A. Major Findings

1. Strengths:

1. Provide three disciplines with pre-requisite courses (Vocational Nursing Program, Psychiatric Technician Program and Paramedic (optional))
2. Clear, concise courses offered on regular basis
3. Ability to react to demand on a close to "real time" basis

2. Areas for Improvement:

1. Regularly review courses for relevancy and currency
2. Regularly (annual) evaluation/assessment of courses
3. Curricular review on a regular basis
4. Several courses are subject to an irregular application process for one program for which they are prerequisites.

3. Projected Program Growth, Stability, or Viability:

Stability – these courses meet the needs of the community as related to the regular enrollments evidenced and feeders into VN and PTEC specifically.

B. New Objectives/Goals:

Ensure regular assessment of these courses are completed consistently and specifically review HEOC 172 (Nutrition) for increase in unit value from 2 units to 3 units according to subject matter relevancy as a prerequisite for VN and PTEC programs.

Program Review Report | **Spring 2020**

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**
Area of Study	Health Occupations
Courses	HEOC-97
	HEOC-100
	HEOC-101
	HEOC-171
	HEOC-172
	HEOC-298
	HEOC-372

Taxonomy of Programs, July 2019

I. PROGRAM DATA

A. Demand

1. Headcount and Enrollment

	2016-2017	2017-2018	2018-2019	% Change over 3-Year Period
Headcount				
Within the Program	595	523	491	-17.5%
Across the Institution	8,930	8,843	8,177	-8.4%
Enrollments				
HEOC-97	31	218	--	--
HEOC-100	199	186	206	3.5%
HEOC-101	163	127	210	28.8%
HEOC-171	197	137	156	-20.8%
HEOC-172	141	14	101	-28.4%
HEOC-298	31	--	--	--
HEOC-372	19	31	32	68.4%
Within the Program	781	713	705	-9.7%
Across the Institution	36,525	36,115	32,545	-10.9%
Source: SQL Enrollment Files				

<u>RPIE Analysis</u>: The number of students enrolled (headcount) in the Health Occupations Program decreased by 17.5% over the past three years, while headcount across the institution decreased by 8.4%. Enrollment within the program decreased by 9.7%, while enrollment across the institution decreased by 10.9%.

Enrollment in the following courses changed by more than 10% (±10) between 2016-2017 and 2018-2019:

Courses with enrollment increases:

- *HEOC-372 (68.4%)*
- *HEOC-101 (28.8%)*

Courses with enrollment decreases:

- *HEOC-172 (-28.4%)*
- *HEOC-171 (-20.8%)*

Program Reflection:

The courses within the HEOC family of courses that are distinct from the specific discipline courses are generally entry level/introductory courses. HEOC 100 (Basic Anatomy & Physiology (no lab)), HEOC 101 (Pharmacology), and HEOC 172 (Basic Nutrition) are prerequisite courses for the Vocational Nursing (VN) and Psychiatric Technician (PTEC) programs and are optional for Paramedic Program. All other courses are suggested by some other programs but are not specific to any program. The reduction of enrollments in HEOC 172 is likely due to the non-regular application periods for the Vocational Nursing program as well as the smaller cohort groups that apply to the VN program. The number of sections of this course have been reduced due to these decreases. We have seen a reduction in HEOC 171 (Medical Terminology) due to the reduction of one section of the course/semester. HEOC 171 is a course that is "recommended" by the specific disciplines but is not required in any program.

HEOC 372 is a course that is required for a Vocational Nurse to be able to start intravenous therapy (as it is not within the scope of their general practice without this course/certification). Thus, this course is available to the general public who are Vocational Nurses and Registered Nurses but the spike is attributable to the timing of the vocational nurse curriculum wherein the course would fall (e.g., the VN program is a two-plus year, part-time program and the course is offered each semester).

2. Average Class Size

	2016-2017		2017-2018		2018-2019		Three-Year	
	Sections	**Average Size**	**Sections**	**Average Size**	**Sections**	**Average Size**	**Average Section Size**	**Trend**
HEOC-97	1	31.0	1	31.0	--	--	31.0	--
HEOC-100	5	39.8	6	36.3	6	34.3	36.6	-13.8%
HEOC-101	4	40.8	5	37.2	6	35.0	37.3	-14.2%
HEOC-171	5	39.4	4	31.8	4	39.0	36.9	-1.0%
HEOC-172	4	35.3	4	34.3	3	33.7	34.5	-4.5%
HEOC-298	1	31.0	--	--	--	--	31.0	0.0%
HEOC-372	1	19.0	2	7.0	2	16.0	13.0	-15.8%
Program Average*	21	37.2	22	32.4	21	33.6	34.4	-9.7%
Institutional Average*	1,474	24.8	1,406	25.7	1,313	24.8	25.1	1.2%

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 34.4 students per section. The average class size in the program has exceeded the average class size of 25.1 across the institution during this period. The average class size in the Health Occupations Program decreased by 9.7% over the past three years. Average class size at the institutional level increased by 1.2% over the same period.

Average class size in the following course changed by more than 10% (±10%) between 2016-2017 and 2018-2019

Courses with decreases in average class size:

- *HEOC-372 (-15.8%)*
- *HEOC-101 (-14.2%)*
- *HEOC-100 (-13.8%)*

Program Reflection:

All these courses have been "scaled back" due to the declining number of applicants for the Vocational Nursing Program (less demand). While the Psychiatric Technician Program still drives much of the need/demand for these courses, the reduction in Vocational Nursing applications has had an impact on these

enrollments. However, the number of enrollments has remained consistent and we are able to address need by being more efficient with the number of seats available and the number of sections offered.

3. Fill Rate and Productivity

	Enrollments*	Capacity	Fill Rate
2016-2017	546	580	94.1%
2017-2018	535	590	90.7%
2018-2019	508	540	94.1%
Three-Year Program Total	1,589	1,710	92.9%
Institutional Level	94,614	117,777	80.3%
Productivity*			
	FTES	**FTEF**	**Productivity**
2016-2017	51.9	3.0	17.4
2017-2018	44.8	3.2	13.9
2018-2019	49.2	3.5	13.9
Three-Year Program Total	145.8	9.8	14.9
Source: SQL Enrollment and Course Sections Files			

RPIE Analysis: Fill rates within the Health Occupations Program tend to be higher than the fill rates at the institutional level. [Compare program-level rate of 92.9% to institution-level rate of 80.3% over the past three years.] Between 2016-2017 and 2017-2018, enrollment decreased while capacity increased, resulting in a decrease in fill rate. Between 2017-2018 and 2018-2019, capacity decreased at a higher rate than enrollments, resulting in an increase in fill rate.

Productivity decreased from 17.4 to 13.9 over the three-year period. The three-year program productivity of 14.9 is lower than the target level of 17.5, which reflects 1 FTEF accounting for 17.5 FTES across the academic year. (This target reflects 525 weekly student contact hours for one full-time student across the academic year.) Productivity has not been calculated at the institutional level.

**Note: Fill rates and productivity reported do not include 13 Health Occupation 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:

We can manipulate the number of sections offered on an almost "real-time" basis for these courses since they are not specifically tied to any single program. These courses, with rare exception, have been largely transitioned to adjunct instructors and are almost entirely on-line. The on-line platform has been preferable to the vast majority of students and recent changes to the curricula in several of our HEOC disciplines have

dictated the move to the use of adjunct instructors for these courses due to the high loads that our full-time instructors carry in the specific disciplines. Enrollments have remained steady based upon capacity.

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.

B. Momentum

1. Retention and Successful Course Completion Rates

	Retention Rates (Across Three Years)			Successful Course Completion Rates (Across Three Years)		
Level	**Rate**	**Course Rate vs. Program Rate**		**Rate**	**Course Rate vs. Program Rate**	
		Above	**Below**		**Above**	**Below**
HEOC-97	***79.0%***		***X***	74.2%		X
HEOC-100	86.8%		X	73.0%		X
HEOC-101	90.3%	X		74.8%	--	--
HEOC-171	***92.5%***	***X***		77.9%	X	
HEOC-172	86.5%		X	71.5%		X
HEOC-298	***100%***	***X***		***100%***	***X***	
HEOC-372	***100%***	***X***		***98.5%***	***X***	
Program Level	89.3%			75.4%		
Institutional Level	89.8%			75.1%		

Source: SQL Enrollment Files
-- Indicates a value that is within 1% of the program level value.
Bold italics denote a statistically significant difference between the course-level rate and the program-level rate.

<u>RPIE Analysis</u>: Over the past three years, the retention rate for the Health Occupations Program mirrored the rate at the institutional level. The retention rate in HEOC-97 was significantly lower than the program-level rate. Other Health Occupations courses (highlighted in the table) had retention rates that were significantly higher than the program-level rate. The retention rate for Health Occupations falls in the 33rd percentile among program-level retention rates (across 59 instructional programs, over the past three years).

Over the past three years, the successful course completion rate for the Health Occupations Program mirrored the rate at the institutional level. No courses within Health Occupations had a retention rate significantly lower than the program-level rate. Other Health Occupations courses (highlighted in the table) had retention rates that were significantly higher than the program-level rate. The successful course completion rate for Health Occupations falls in the 41st percentile among program-level retention rates (across 59 instructional programs, over the past three years).

Over the past three years, the difference between retention and successful course completion at the program level (13.9%) was slightly lower than the difference at the institutional level (14.7%). This figure represents the proportion of non-passing grades assigned to students (i.e., grades of D, F, I, NP). The following Health Occupation courses claim differences (between retention and successful course completion) exceeding 10%:

- *HEOC-101 (15.5%)*
- *HEOC-172 (15.0%)*
- *HEOC-171 (14.6%)*
- *HEOC-100 (13.8%)*

Program Reflection:

Retention rates in these classes remain solid as several of these courses are the "entry" into two fields of study or the students who take them are generally initially highly motivated. With 100% retention being the overall goal, students who do not complete the courses have found other avenues to study, have competing priorities, or tend to realize that perhaps their initial plans for study are not what they anticipated and drop. Another factor may be that most of these courses are offered on-line. We rarely have in-person courses because there hasn't been a demand to have these courses in-person as evidenced by cancellations due to low enrollment. In the courses listed above, only HEOC 372 is offered in-person and must be because of the lab component.

2. Student Equity

	Retention Rates (Across Three Years)		Successful Course Completion Rates (Across Three Years)	
	Program Level	**Institution Level**	**Program Level**	**Institution Level**
Black/African American	88.7%	85.8%	67.7%	64.2%
Hispanic			74.8%	72.9%
First Generation			72.4%	73.9%

Source: SQL Enrollment Files
Bold italics denote a statistically significant difference between rates at the program and institutional levels, with the lower of the 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.

RPIE Analysis: This analysis of student equity focuses on the three demographic groups with significantly lower retention and/or successful course completion rates found at the institutional level (vs. the corresponding rates among all students) over the past three years. Tests of statistical

significance were conducted to compare program-level and institution-level rates among the three groups listed above.

Within the Health Occupations Program, retention and successful course completion rates tended to mirror the rates at the institutional level for all three groups.

This pattern reflects the findings from the comparison of retention and successful course completion at the program vs. institutional level (as there were not any statistically significant differences between the program-level and institution-level rates). (See Section I.B.1 above).

Program Reflection:

This cluster of courses is consistent with the overall institutional numbers. As these courses are not directly associated with a specific program since they are prerequisites, and access to our healthcare disciplines is achieved via an application with variable metrics for acceptance, it is difficult to recruit specific student demographics.

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			Successful Course Completion Rates		
	In-Person	Hybrid	Online	In-Person	Hybrid	Online
HEOC-171	98.7%	--	***91.8%***	83.5%	--	78.4%
Institutional Total	89.3%	--	***86.0%***	70.5%	--	***67.9%***

Source: SQL Course Sections Files
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.

RPIE Analysis: Over the past three years, one course offered by the Health Occupations Program has been offered through at least two delivery modes within the same academic year. In 2016-2017 and 2017-2018, HEOC-171 was offered through the in-person and online formats.

Within the Health Occupations Program:

- *The retention rate in online sections of HEOC-171 was significantly lower than the retention rate in in-person sections of the class.*
- *The successful course completion rate in online sections of HEOC-171 was lower than the successful course completion rate in in-person sections of the class. However, the difference was not statistically significant.*

This pattern within the program – with retention and successful course completion rates in in-person sections exceeding the corresponding rates in online sections of the same courses – reflects the findings at the institutional level.

Program Reflection:

Specific to HEOC 171, whether in-person on on-line, many students feel that they know medical terminology and take the course lightly (anecdotal evidence via instructors) and are surprised at the complexities, especially if they haven't had sciences (anatomy, physiology) in high school. Many of the student who enroll

in this course tend to be individuals who are planning/wanting to get into medical transcription services as a vocation but have not had a background in sciences. When taken with, or after HEOC 100, students tend to do a bit better in this course although the two courses are neither co-requisites nor pre-requisites for the other.

C. Student Achievement

1. Program Completion

This section does not apply to the Health Occupations Program, as there are not any degrees or certificates associated with the program. See Taxonomy of Programs.

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.

II. CURRICULUM

Subject	**Course Number**	**Date of Last Review**	**Has Prerequisite*** Yes/No	**In Need of Revision** *Indicate Non-Substantive (NS) or Substantive (S)*	**To Be Archived** *(as Obsolete, Outdated, or Irrelevant)*	**No Change**
HEOC	97	2009	No	NS		
HEOC	100	Spring 2020	No	NS		
HEOC	101	2007	No	NS		
HEOC	171	2018	No			X
HEOC	172	1986	No	S		
HEOC	298				Archived 6/2017	
HEOC	372	2019	Yes			X

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

Program Reflection:

The courses that require review will be reviewed, and updated, as necessary to ensure that the curriculum remains relevant and current. HEOC 100, HEOC 101, and HEOC 172 are specific prerequisites to the VN, PTEC, and Paramedic programs and must be reviewed to assure alignment with accrediting agency standards. This will be completed in the coming year. HEOC 172 is currently a 2-unit course and it meets accrediting body minimal standards but review to increase units to three (3) will be completed to determine the need for such.

HEOC 298 was archived in June 2017 via the Curriculum Committee process.

The prerequisite(s) for HEOC 372 are as follows: (1) Current enrollment in the Vocational Nursing program, or (2) Possession of a current Vocational Nursing license, or (3) Possession of a current Registered Nursing license.

III. 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

Area of Study	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
Health Occupations	0	0	0		

Program Reflection:

It is planned that outcomes assessment will be conducted on a more regular basis in the coming years. The division will establish a calendar to target specific courses for regular assessment. Adjunct instructors who are the primary instructors in these courses will be trained to participate appropriately and effectively in course assessment.

B. Summary of Learning Outcomes Assessment Findings and Actions

SLO assessment for the six offered Health Occupations courses is 83%. One of the courses, HEOC 97 has not been offered for several years, thus not evaluated. Over the past six years, the most successful offering of this course has been a two-week "boot camp" format that is targeted toward high school students and it hasn't been offered in this format since June 2017. If this course remains in the inventory the assessment goal will be 100%. The calendar of review is attached.

Of the courses offered, most all are offered as on-line and thus getting feedback is difficult. We will need to identify a way to get better in the future (perhaps as part of the course requirement) to gain useful data for course evaluation.

At this time, HEOC 372 (IV certification) is offered live in the classroom and lab, as required by the California Board of Vocational Nursing. This course is offered for licensed (RN or LVN) people as well as third semester VN students enrolled in the Vocational Nursing program. This course has consistently positive feedback, which may be the nature of a class that is attended *only* by people who *want* to take it (it is not required), and offers an opportunity to practice a skill otherwise difficult to practice ethically/ legally and also provides a marketable skill.

Program Reflection:

As noted previously in this review, the cluster of Health Occupations courses is not a program, thus there are no PLO's. Some of these courses are required, at a minimum, for **some** of the Health Occupations Programs.

Some of the courses are required as pre-requisites, some as co-requisites, and some as "suggested courses" ***but not required***. Students, not enrolled in any of these programs, may also take most of these courses. The Health Occupations Programs include Associate Degree Nursing (ADN), Vocational Nursing (VN), Emergency Medical Technicians (EMT), Paramedic (PM), Psychiatric Technicians (PT), and Respiratory Therapy (RT). Some are certificate programs, and some are Associate Degree.

PROGRAM PLAN

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

O Viability

Stability

X

O Growth

*Please select ONE of the above.

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

1. Fill rate and productivity
2. Student success
3. Curricular review

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

Program: **HEOC Non-Discipline Courses**
Plan Years: 2020-2023

Strategic Initiatives Emerging from Program Review	Relevant Section(s) of Report	Implementation Timeline: Activity/Activities & Date(s)	Measure(s) of Progress or Effectiveness
Update curriculum in HEOC 172	Curriculum	AY 2020/21	Update/improve outcomes/unit levels

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:

This cluster of courses is not a program and therefore does not require specific funding or other resources (e.g., lab materials, models, room requirements). As noted previously, these courses with the exception of HEOC 372 are all offered on-line.

III. PROGRAM HIGHLIGHTS

A. Recent Improvements

All but one of these courses (HEOC 372) is approved to be instructed via online education. The approval is granted via the accrediting bodies as well as vetted thoroughly by the Curriculum Committee on campus. We have attempted to offer the courses both online and face-to-face, yet the in-person courses have not been viable due to lack of enrollment.

Accordingly, this has led to a marked improvement in how the course is offered in the online format. The instructors have become adept at developing and managing the courses in Canvas and the quality of instruction as improved markedly since the last Program Review in 2015.

B. Effective Practices

Same as above.

Feedback and Follow-up Form

Completed by Supervising Administrator:

Robert Harris

Date:

4/14/2020

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

The cluster of courses discussed herein is not a program as defined by the college. However, three courses are direct prerequisites needed for application to the Vocational Nursing, Psychiatric Technician, and EMS/Paramedic programs. The data indicate that in some areas students are enrolling and succeeding at a rate consistent with, or slightly higher than, institutional averages. This is expected and we expect that this will continue.

Areas of concern, if any:

1. Lack of continuous evaluation and assessment of courses.
2. Reduction in numbers of enrollments that is attributable to the general decline in application cohorts for the Vocational Nursing program in recent years.
3. Regular curricular review must be initiated consistently.

Recommendations for improvement:

Develop a formal schedule for regular assessment of the courses.

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	None
Library & Learning Materials	None