

2025-2026 Instructional Program Review Template - Pharmacy Technology Latest Version

Self-study template for Instructional Program Review process. Visitation Year: 2025-2026. Review period: 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024, and 2024-2025

Instructional Program Review Overview

Section 1. Instructional Program Overview

A. Mission Alignment : Version by Chavez, Esthela on 10/25/2025 00:08

1. Explain how your program supports the College's Mission and Students First Framework (<https://www.cerritos.edu/students-first-framework/default.htm>).

The mission of the Pharmacy Technology Department:

The mission of the Cerritos College Pharmacy Technology Department is to educate and train future pharmacy technicians who will excel in diverse pharmacy settings. The program strives to prepare students with the comprehensive pharmacy knowledge, skills, information, and resources necessary to meet the current and future needs of the health care system.

The Pharmacy technology program empowers students with information about the practice of pharmacy, resources, and intellectual skills which supports the Cerritos College Mission Statement.

Both Cerritos College's and the program's mission statement strive to develop equitable access, the program has partnered with Chapman University, WesternU and Marshall B Ketchum to provide a direct path to the PharmD program (Doctorate in Pharmacy). Students can complete their Associates in Science degree in Pharmacy Technology and the pre-requisite courses required for the Pharmacy School admission and be granted acceptance to the PharmD program. The path will help student bypass the Bachelors degree requirement and save them both money and time (a minimum of 2 years will be saved).

The program supports completion by its efforts to graduate more students in less time. More than half of our program students complete their degrees in 4 or less years (61%). Some factors contributing to the higher completion rate include a short program duration of 12-18 month. The program provides an ASHP/ACPE certification which is highly regarded in the field when applying for a job. The program facilitates the licensing process and mentors students with the application process. Moreover, the clinical rotations (completed in their last semester) serve as potential future employment opportunities, where students are recruited once licensed to apply for positions within the healthcare system where they completed their internship at.

Career and Transfer Success: Upon completion of the program students who receive their certificate apply for state licensure and once licensed seek for job opportunities. Most students find employment with partners who offer rotations during the two clinical courses required for program completion. Those who choose to complete their Associates degree continue to take courses required for transfer to a four year institution or complete the require courses and apply for the doctorate of pharmacy program with Cerritos College's partners which include Chapman University, WesternU and Marshall B Ketchum School of pharmacy. The partnership established with Chapmen University, WesternU and Marshall B Ketchum focuses on "enabling life-changing career opportunities" for those interested in career beyond Pharmacy Technicians (completing a Doctorate degree in Pharmacy and becoming a licensed pharmacist).

Institutional Health: faculty in the pharmacy technology department come from diverse backgrounds. Several new part-time faculty hired after a full timer retirement in 2025 include, hospital pharmacy technician with year of experience in a large size health care system, Infusion pharmacist expert, a board of pharmacy inspector among community pharmacists. The addition of the new faculty brings a diverse expertise to the program and help develop and update course materials as it pertains to their area of expertise. All pharmacists and pharmacy technician faculty are required to complete continuing professional education which keeps that program up-to-date.

B. Degrees and Certificates : Version by Makarem, Nasiba on 09/26/2025 01:03

| Degree | Type (Cert., AA, AA-T, AS, AS-T) | Units or Courses Required |
|---------------------|----------------------------------|---------------------------|
| Pharmacy Technology | AS | 61.5 |
| Pharmacy Technology | Cert | 32.5-33.5 |

Section 2. Instructional Program Trends

A. Program Data : Version by Makarem, Nasiba on 11/20/2025 18:08

1. Describe your student demographics (race/ethnicity, gender, age, and others that might be relevant). Consider the following questions when writing your response:

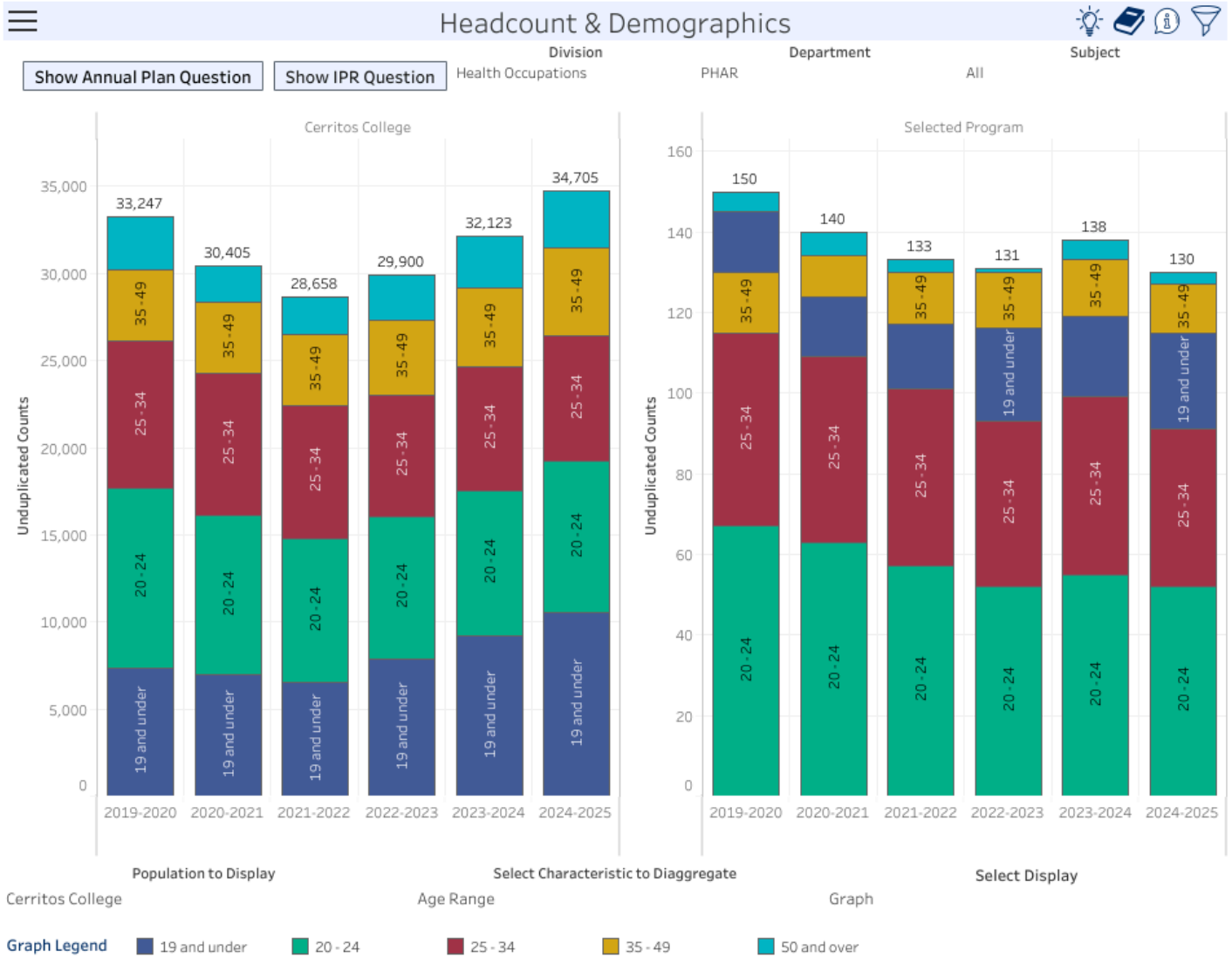
- How do the demographics of your program and its related courses compare with the college as a whole?
- Have they changed over time?

The student demographic of the program resemble the colleges with some slight differences. Since the requirement for pharmacy technician licensing is restricted to those that are over 18 years old the program has the following:

- 2024-2025: 18% of students were between the age of 18-19 years old whereas the college as a whole had ~30% of the total students within this age group. The highest amount of students (40%) in the pharmacy technology program fell in the age range of 20-24 years old whereas the college's percentage for this age range was lower at ~25%. The students in age range of 25-34 was 30% compared to the college at 20%. Only 2% were 50 years old or older which is lower than the colleges 9.3%.
- 2023-2024: 14% of students were between the age of 18-19 years old whereas the college as a whole had ~28% of the total students within this age group. 40% of Pharmacy students were between 20-24 years old compared to the college's at ~25%. The age range of 25-34 had 31% compared to the college at 22%. Only 3% were 50 years old or older, lower than the college representation (college is at 9.2%).
- 2022-2023: 17% of students were between the age of 18-19 years old whereas the college as a whole had ~26% of the total students within this age group. 40% are between 20-24 years old representing a higher proportion of students compared to that of the college's (~27%). The age range of 25-34 had 31% compared to the college at 23%. Only 3% were >50 years old or older, lower than the college representation (college is at 8.7%).

- **2021-2022:** 12% of students were between the age of 18-19 years old whereas the college as a whole was ~22% of the total students within this age group. 42% were between 20-24 years old higher than the college proportion at ~28%. The age range of 25-34 had 33% compared to the college at 26%. Only 3% were 50 years old or older, lower than the college representation (college is at 7.4%).
- **2020-2021:** 10% of students were between the age of 18-19 years old whereas the college as a whole had ~22% of the total students within this age group. 45% were between 20-24 years old higher than the college's (~30%). The age range of 25-34 had 33% compared to the college at 26%. Only 4.3% were 50 years old or older, lower than the college representation (college is at 6.7%).
- **2019-2020:** 10% of students were between the age of 18-19 years old whereas the college as a whole had ~23% of the total students within this age group. 45% were between 20-24 years old compared to the colleges ~30%. The age range of 25-34 had 32% enrollment versus the college at 25%. Only 3.3% were 50 years old or older, lower than the college representation (college is at 9%).

The age distribution in the last 6 years in the program shows an increase in the age group of 19 years or younger from 10% to 18% of the total population. The 20-24 age group has decrease from making up 44.7% to 40%, age group 25-34 has decreased from 32% to 30% all others remain about the same.



The data for Race is very similar between the program and the college. Pharmacy technology had:

- **2024-2025:** ~67% of students identified as Hispanic compared to the College at 63.5%. White students represented 8.5% whereas the college representation was 14.7%. Asian students made up a higher proportion at 11.5% compared to the college representation of 9.7%. Black 7.69%.
- **2023-2024:** ~ 63% of students identified as Hispanic compared to the College at ~65%. White students represented 9.4% vs college 12.3%. Asian students made up a higher proportion at 15.2% compared to the college representation of 10%. Black 7.97%
- **2022-2023:** ~ 71% of students identified as Hispanic compared to the College at ~66%. White students represented 3% whereas the college representation was 10.7%. Asian students made up a higher proportion at 12% compared to the college representation of 9.7%. Black 6.11%
- **2021-2022:** ~ 68.4% of students identified as Hispanic compared to the College at ~65%. White students represented 3.8% whereas the college representation was 11%. Asian students made up a higher proportion at 16.5% compared to the college representation of 9.5%. Black 4.51%
- **2020-2021:** ~ 61% of students identified as Hispanic compared to the College at ~67%. White students represented 8% whereas the college representation was 9.5%. Asian students made up a higher proportion at 20% vs compared to the college representation of 9.1%. Black 5.71%
- **2019-2020:** ~ 70% of students identified as Hispanic compared to the College at ~67%. White students represented 5% whereas the college representation was 8.7%. Asian students made up a higher proportion at 13.3% compared to the college representation of 9.1%. Black 7.33%

Overall, in the past 6 years the Hispanic population has decrease from 70% to 67%. White students have increase from making up 4.7% to 8.5% of the population. Asian students have slightly decrease from 13.3% to 11.5%.



Headcount & Demographics



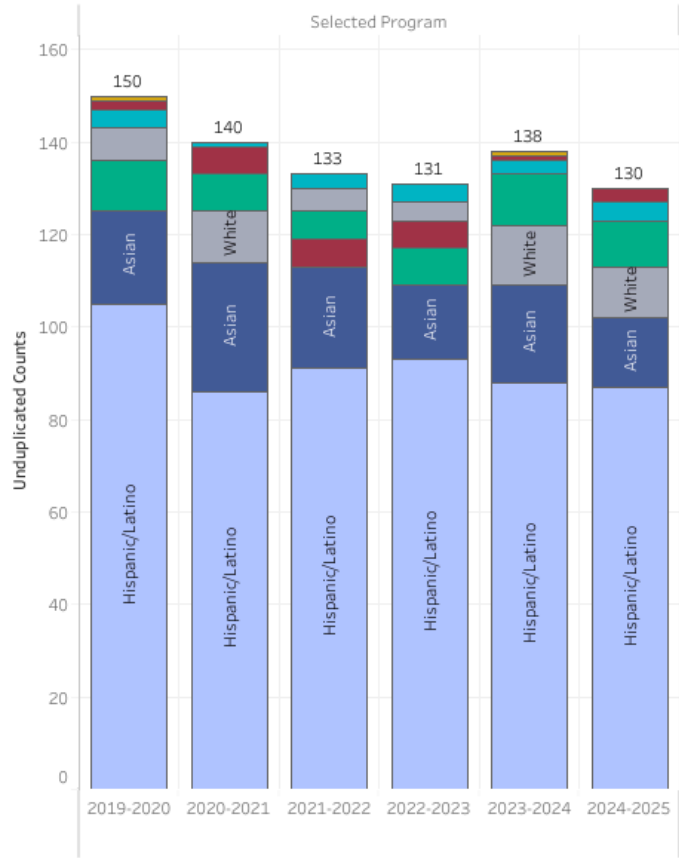
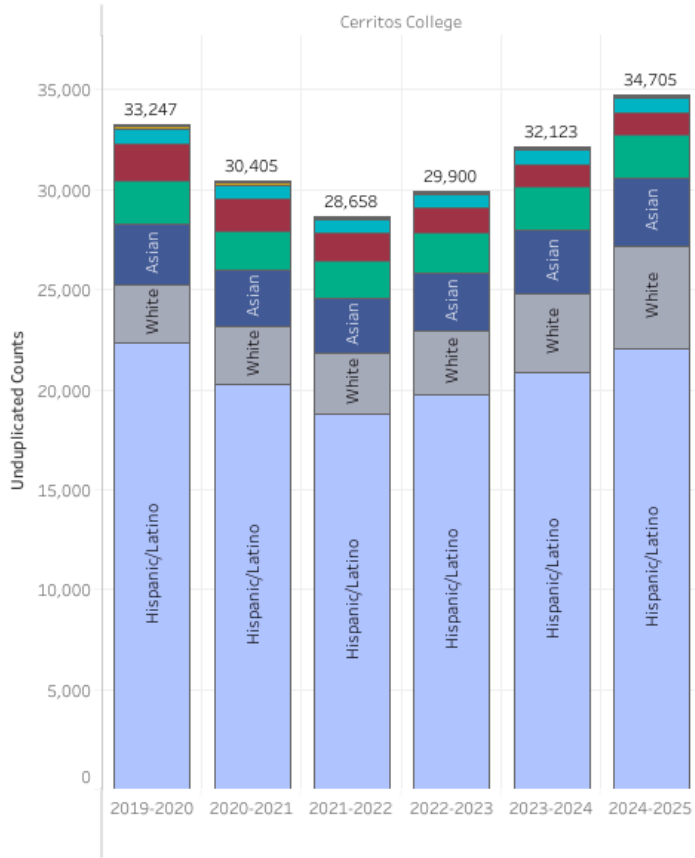
Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All



Population to Display: Cerritos College
 Select Characteristic to Diaggregate: Race/Ethnicity
 Graph: Graph
 Select Display: Graph

Graph Legend
 Asian (Dark Blue), Black or African A. (Green), Hispanic/Latino (Light Blue), Native Hawaiian .. (Yellow), Two or More Races (Cyan), Unknown (Red), White (Grey)

In the last 6 years the amount of Female has increased from 67% to 72%, which differs from the college's rate 43%-56%. Gender remains steady over the 6 years.

- 2024-2025: Females higher at 72% in the program vs. college 55%
- 2023-2024: Females higher at 77.54% in the program vs. college 54.6%
- 2022-2023: Females higher at 80.92% in the program vs. college 43.3%
- 2021-2022: Females higher at 76% in the program vs. college 54%
- 2020-2021: Females higher at 72% in the program vs. college 56%
- 2019-2020: Females higher at 67% in the program vs. college 54%



Headcount & Demographics



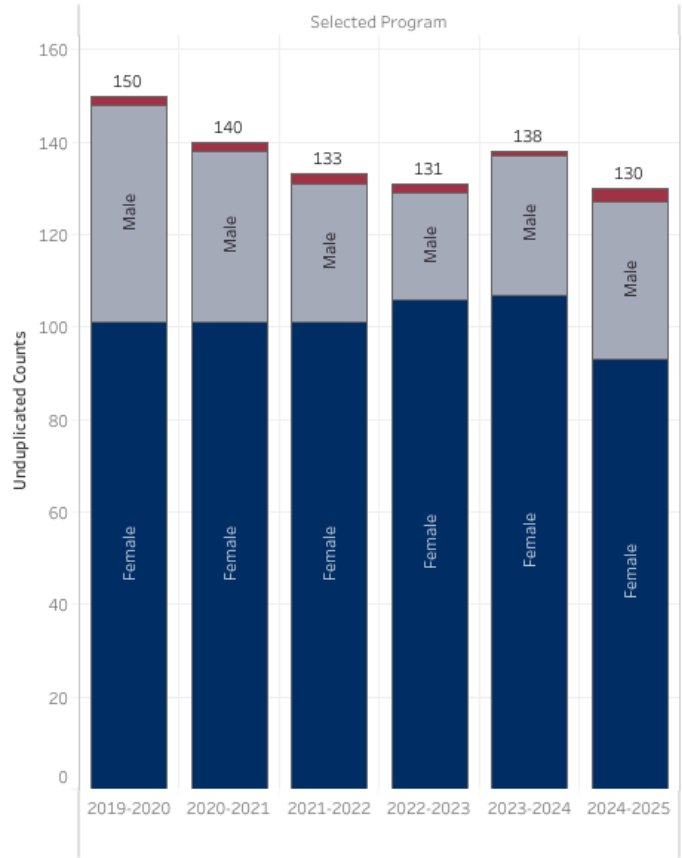
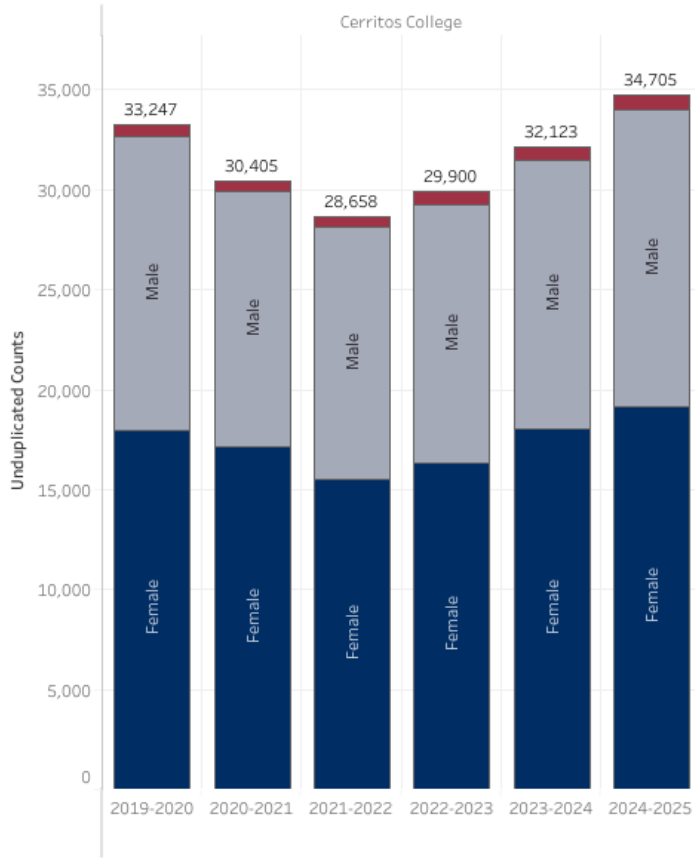
Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

All
Subject



Population to Display
Cerritos College

Select Characteristic to Diaggregate
Gender

Graph

Select Display

Graph Legend

- Female
- Male
- Unknown

First generation status flip flops across the six years with a 2% difference amongst first generation and non-first generation status. The 5th year had an even split where the past academic year there was close to a 7% difference between first generation status (45% v 38%). In the current year it appears that we have the highest 1st generation students enroll in the program. Although, the rate is consistently fluctuating between 37% and 45%.

- 2024-2025- The program has 45% 1st generation students; the college is at 38%.
- 2023-2024: The program has ~37% 1st generation students; the college is at 38%.
- 2022-2023: The program has 44% 1st generation students; the college is at 37.8%.
- 2021-2022: The program has 41% 1st generation students; the college is at 36.5%.
- 2020-2021: The program has 44% 1st generation students; the college is at 38%.
- 2019-2020: The program has 38% 1st generation students; the college is at 38%.



Headcount & Demographics



Division

Department

Subject

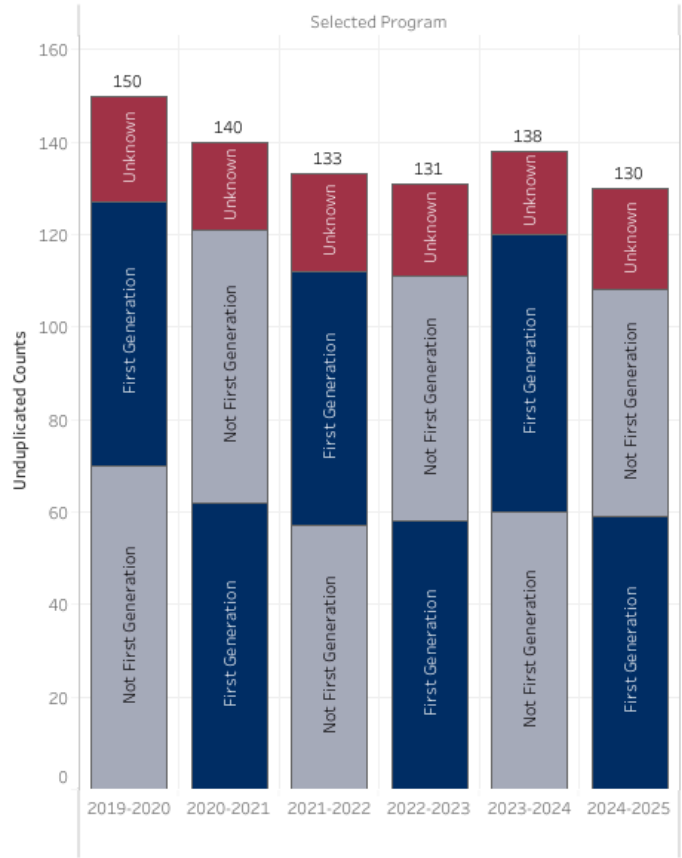
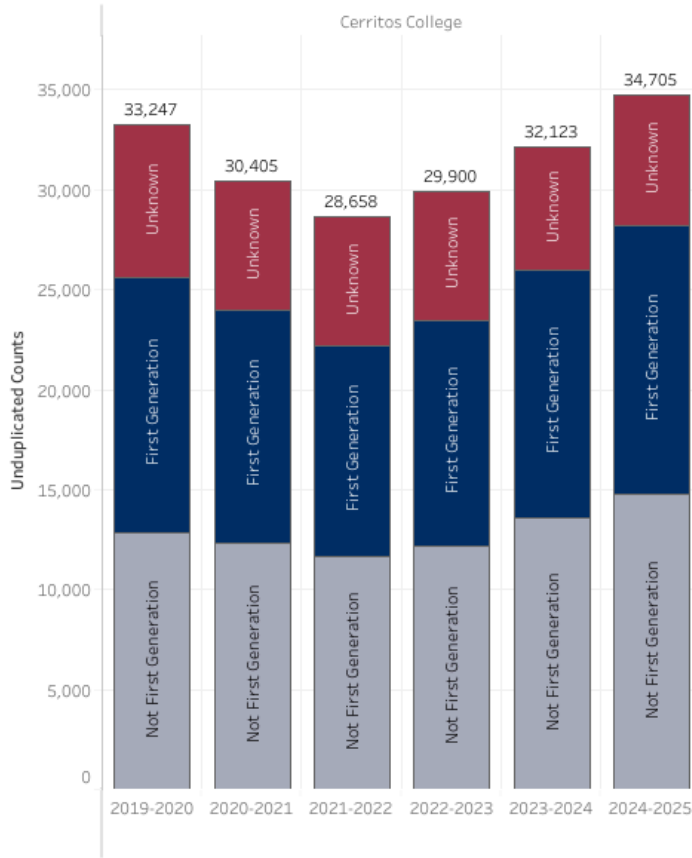
Show Annual Plan Question

Show IPR Question

Health Occupations

PHAR

All



Population to Display

Select Characteristic to Disaggregate

Graph

Select Display

Cerritos College

First-Generation

Graph Legend: First Generation (dark blue), Not First Generation (light blue), Unknown (red)

In summary, in the last six years the 19 and younger group has increased from making up 10% to 18.5% of the population. The 20-24 age group has decreased from making up 44.7% to 40% of the population. The 25-34 age group has decreased from making up 32% to 30% of the population. All other age groups have remained about the same. Hispanic/Latino students have decreased from making up 70% to 67% of the population. White students have increased from making up 4.7% to 8.5% of the population. Asian students have slightly decreased making up 13.3% to 11.5% of the population. Gender remains steady with a predominate female student population that is higher than the college female representation. First generation status is consistently fluctuating between 37% and 45%.

2. Headcount (unduplicated) and enrollment (duplicated) in the program. Consider the following questions when writing your response:

- Identify enrollment trends.
- Have there been an increase or decrease in enrollment in the last year?
- Are there differences in trends when you disaggregate the data (e.g., online versus face-to-face, demographics, special populations, etc.)?
- How will enrollment trends affect staffing decisions?

The unduplicated headcount trend shows a decrease in student count since 2019; however, it has remained consistent with slight gains since 2021.

- 2024-2025 program unduplicated count: 130
- 2023-2024 program unduplicated count: 138
- 2022-2023 program unduplicated count: 131
- 2021-2022 program unduplicated count: 133
- 2020-2021 program unduplicated count: 140
- 2019-2020 program unduplicated count: 150



Headcount & Demographics



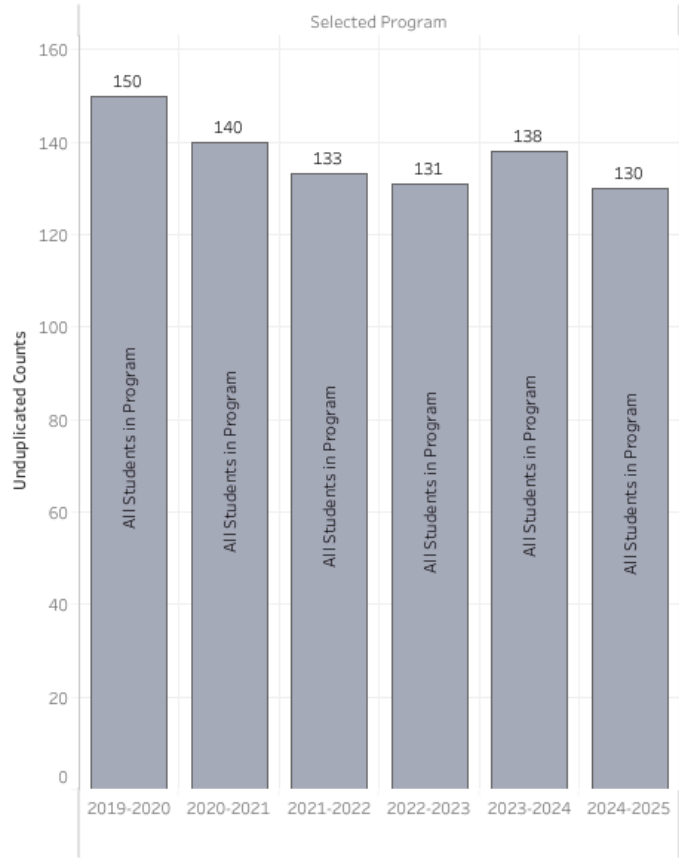
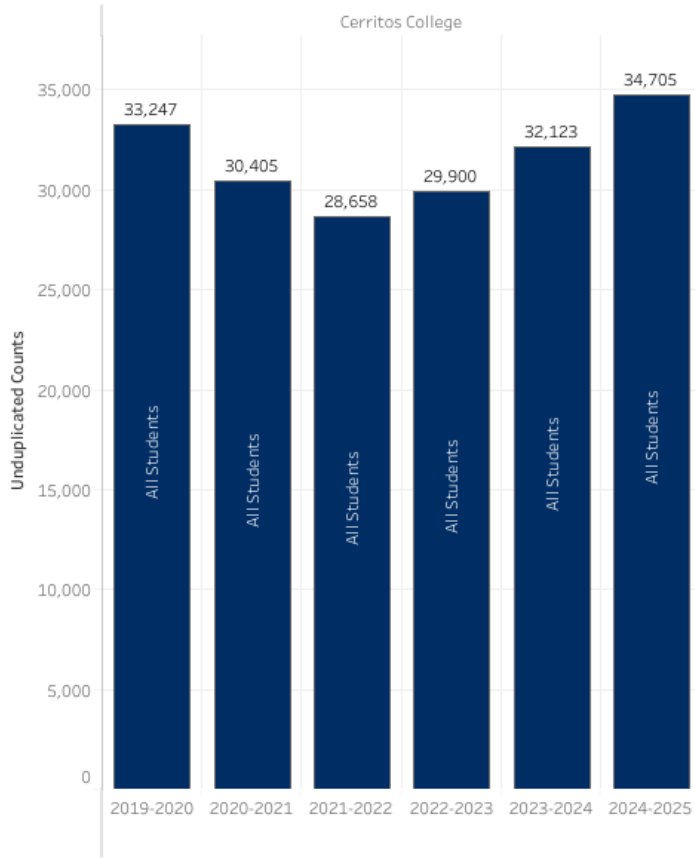
Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All



Population to Display

Select Characteristic to Diaggregate

Graph

Select Display

Cerritos College

All Students

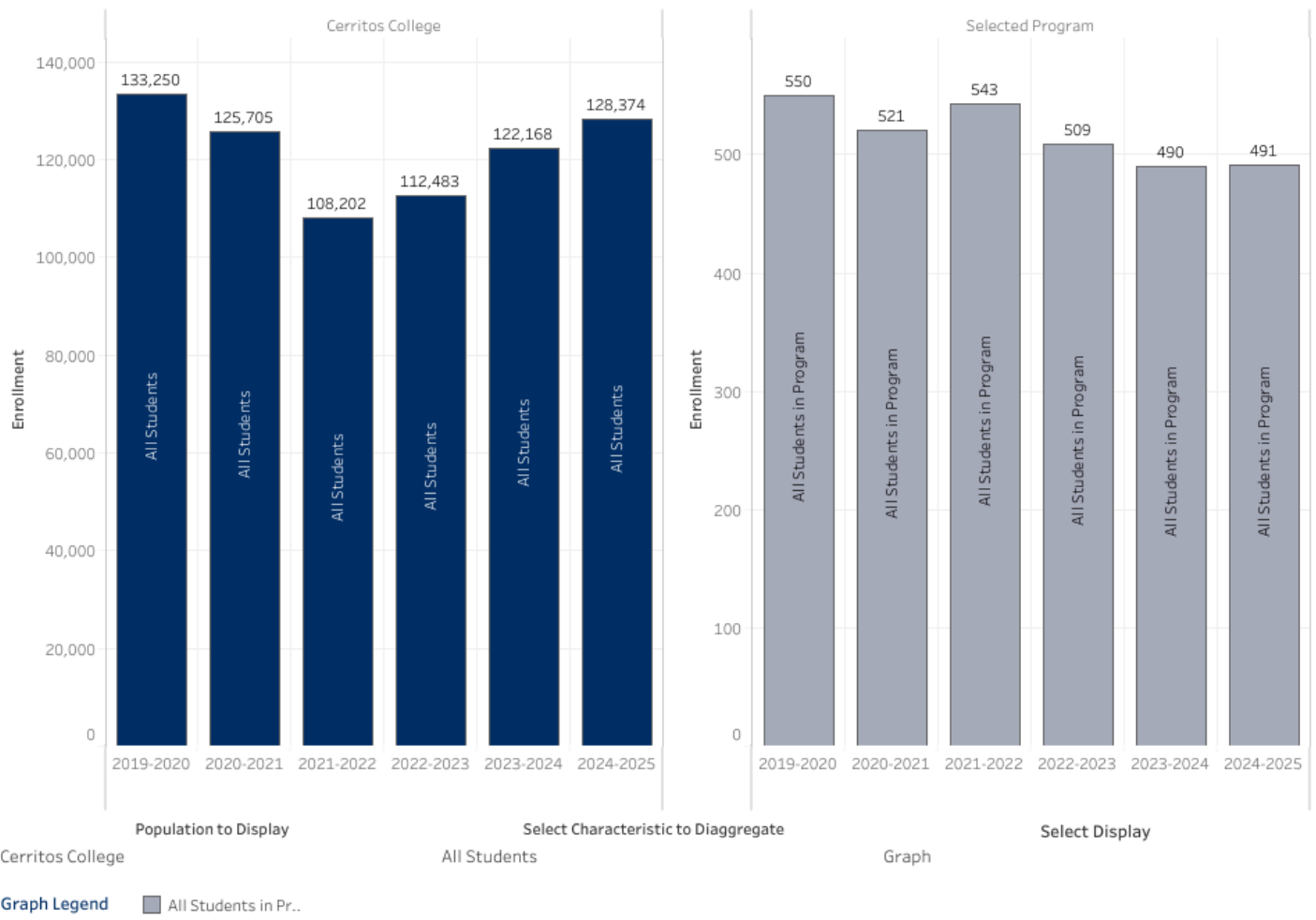
Graph Legend All Students in Pr..

Program enrollment decreased during Covid affected academic years, then had a slight increase in 2021-2022. Since the 2022-2023 academic year there has been a declining trend. In the last year two years, there has not been a notable increase or decrease.

- 2024-2025 program duplicated count: 491
- 2023-2024 program duplicated count: 490
- 2022-2023 program duplicated count: 509
- 2021-2022 program duplicated count: 543
- 2020-2021 program duplicated count: 521
- 2019-2020 program duplicated count: 550

Division: Health Occupations | Department: PHAR | Subject: All

Show Annual Plan Question | Show IPR Question



When looking at a disaggregated data we can note the following:

- Phar 81 was an in person (face to face) course with enrollment of around 30 students in 2020-2021, once the course was converted to an asynchronous (fully online) course registration increased to around 60 students (student enrollment doubled).
- There was an increase in 1st generation student enrollment. In 2019-2020 they composed 38% where currently (2024-2025) first generation students in the pharmacy technician program are at 45%.

Enrollment continues to remain steady and all course are essential for program completion and thus will not affect staffing.

3. Discuss the program's success and retention rates, addressing any performance gaps if success rates are lower for disproportionately impacted students. Consider the following questions when writing your response:

- How have the success and retention rates changed over time?
- Are there particular courses that have particularly low rates and may prove a barrier to program completion?

In the past six-years, Pharmacy Technology's course success rates in each year have been higher than the states (74%) and Cerritos College (67-70%) average rates. The course success rates for the six year period where:

- 2019-2020 course success rate was 77%.
- 2020-2021 course success rate was 79%
- 2021-2022 course success rate was 80%
- 2022-2023 course success rate was 81%
- 2023-2024 course success rate was 78%
- 2024-2025 course success rates was 82%

During the six-year period course success rates increased from 77% to 82% resulting in a 80% six-year average.

When looking at specific courses, Phar 50, had an 82.25% course success rate in 2019-2020 (covid year), the course has moved to an online/synchronous modality since Covid. The success rate for this course dropped in 2020-2021 to 67.21% and in 2021-2022 it dropped to 61.67%, since then, it has been increasing to 68% in 2022-2024 and significantly increased in 2024-2025 to 93.33%. Barriers contributing to the decrease in success rate for this course can include decrease math resources offered to students such as tutoring services; however, they have increased in the last year. Additionally, Phar 81 has had low success rates. In 2019-2020 (covid) at 56.36%, 2020-2021 at 64.41%, 2021-2022 at 64.06%, 2022-2023 at 67.19%, 2023-2024 at 57.89% and 2024-2025 at 69.84%. The main contributing factor is due to the fact that the course is an 18 week asynchronous course where students in many instances stop participating in the course past the drop date. When investigating further, we found the regardless of demographic background, there was no disproportionately impacted students for this course. Overall, data did not show a trend of disproportionately impacted groups throughout the six-year cycle.



Course Success & Course Completion



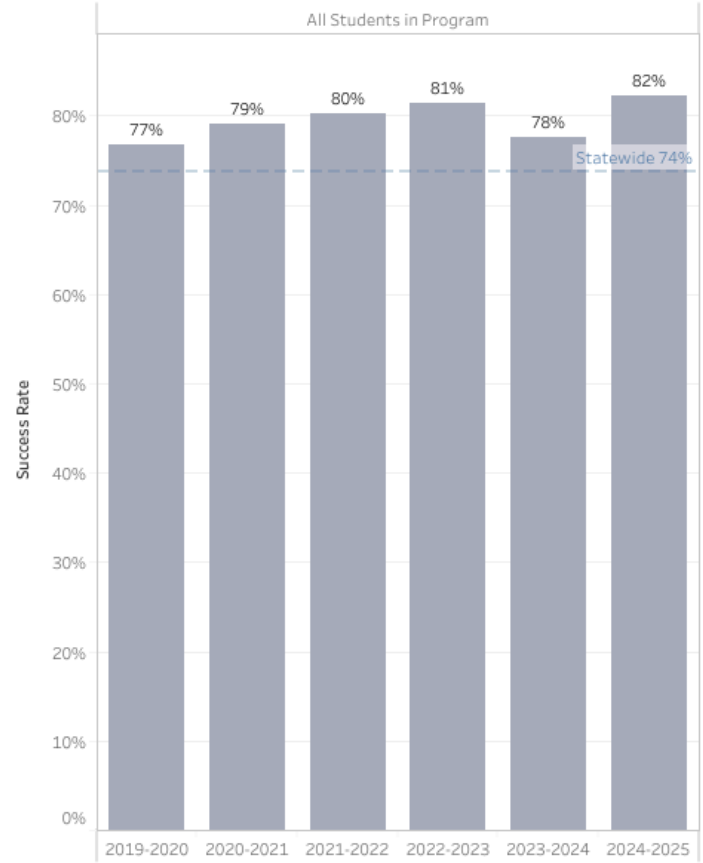
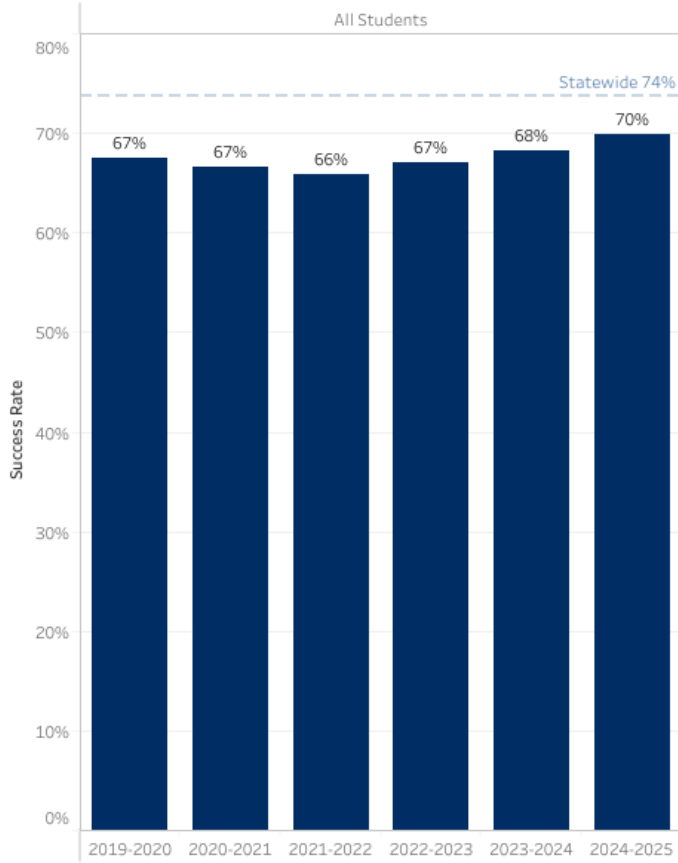
Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All



Select Success or Course Completion
Success Rate

Select Characteristic to Diaggregate
All Students

Graph Legend All Students in Pr..

Show Statewide 2023-2024 Rate True

Course completion rates (retention) have ranged from 85% to 90% with a six-year average of 88.5%. Pharmacy Technology's course completion rates in each year are as follows:

- 2019-2020 course completion rate 85%
- 2020-2021 course completion rate 90%
- 2021-2022 course completion rate 90%
- 2022-2023 course completion rate 88%
- 2023-2024 course completion rate 88%
- 2024-2025 course completion rate 90%

Phar 81 has shown the lowest **course completion** rate ranging from 72.7% to 89.8%, with a most recent rate of 82.5%. Similarly to course success rates, data did not show a trend of disproportionately impacted groups throughout the six-year cycle. In general we can conclude that retention rates have been steadily increasing out performing the college rates and on par with the state rates.



Course Success & Course Completion



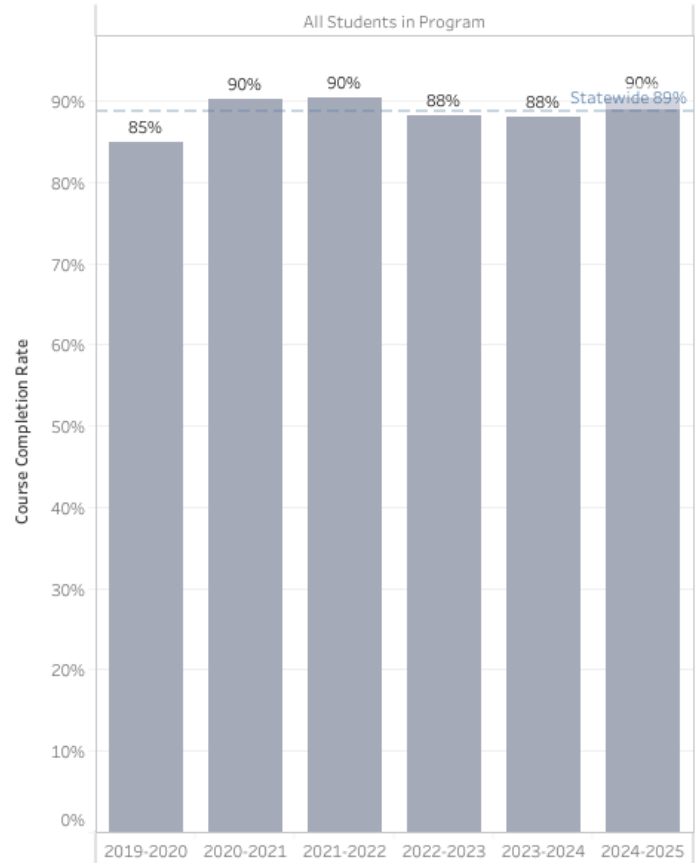
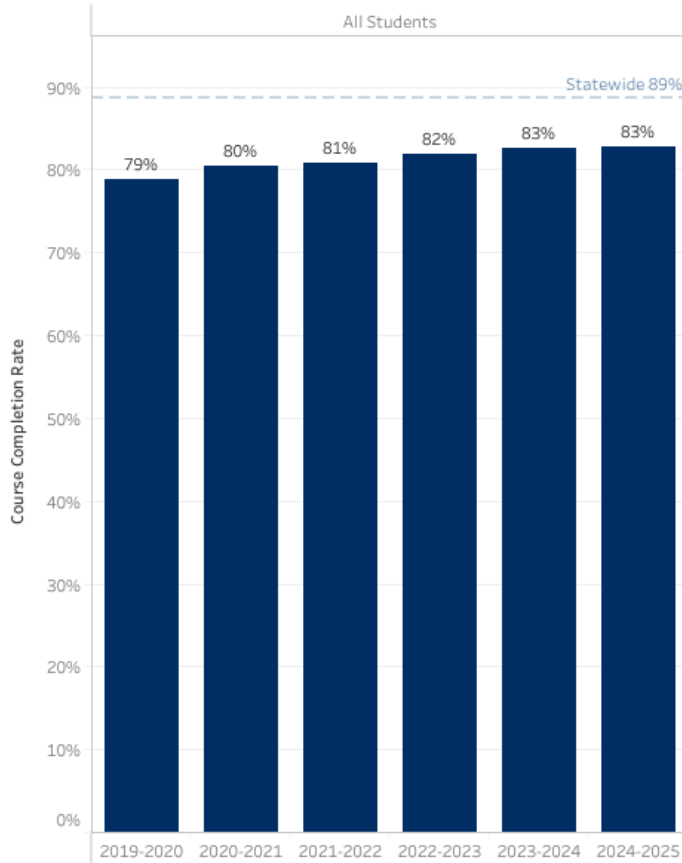
Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All



Select Success or Course Completion
Course Completion Rate

Population to Display
Cerritos College

Select Characteristic to Diaggregate
All Students

Select Display
Graph

Graph Legend
■ All Students in Pr..

Show Statewide 2023-2024 Rate
True

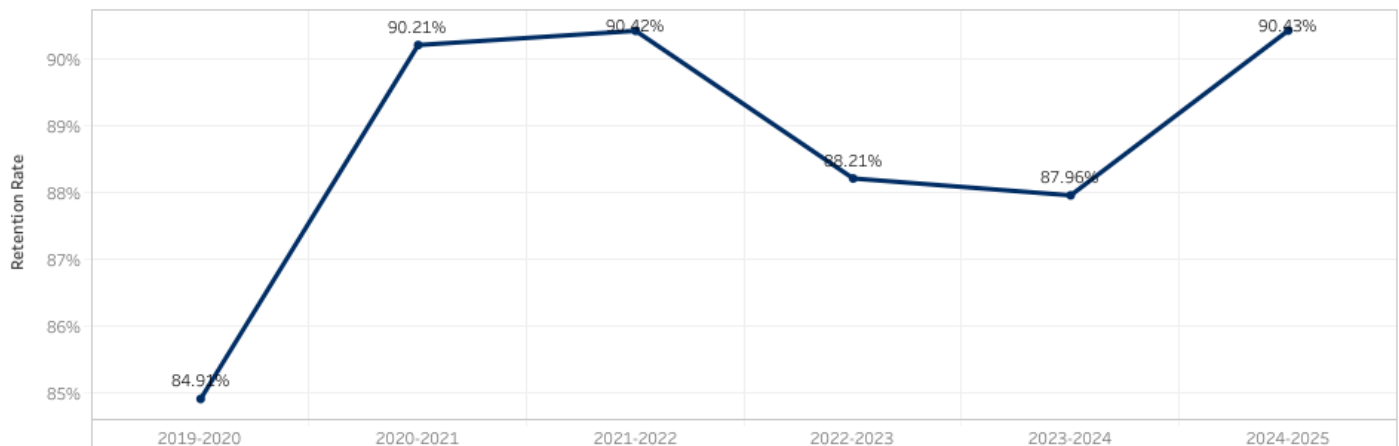
4. With regards to success and retention rates, what is the program doing or planning to do to close performance gaps and address student equity? Consider the following question when writing your response:

- Are there differences in success rates across delivery method (e.g., face-to-face compared to online)?

Pharmacy Technology's course completion rates have remained high and consistent across face to face and online courses (~90%).



Retention Rates



Population: All students



Course Success & Course Completion



Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All

| Division | Department | Subject | Course | Select Student Attribute | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 | 2024-2025 |
|--------------------|------------|---------|---------|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | | | Academic Year | Academic Year | Academic Year | Academic Year | Academic Year | Academic Year |
| Grand Total | | | | | 84.91% | 90.21% | 90.42% | 88.21% | 87.96% | 90.43% |
| Health Occupations | PHAR | PHAR | PHAR 50 | All Students | 87.50% | 88.52% | 83.33% | 87.50% | 78.72% | 97.78% |
| | | | PHAR 55 | All Students | 85.48% | 89.36% | 96.72% | 73.68% | 89.09% | 90.38% |
| | | | PHAR 56 | All Students | 86.89% | 89.36% | 96.67% | 75.93% | 89.09% | 92.31% |
| | | | PHAR 57 | All Students | 92.59% | 88.68% | 93.75% | 89.13% | 85.19% | 82.46% |
| | | | PHAR 63 | All Students | 93.18% | 90.70% | 96.23% | 95.00% | 97.22% | 85.71% |
| | | | PHAR 64 | All Students | 82.93% | 94.29% | 83.87% | 94.74% | 90.32% | 96.97% |
| | | | PHAR 65 | All Students | 76.92% | 86.84% | 82.76% | 97.14% | 96.88% | 100.00% |
| | | | PHAR 81 | All Students | 72.73% | 89.83% | 84.38% | 79.69% | 78.95% | 82.54% |
| | | | PHAR 83 | All Students | 68.89% | 88.37% | 79.41% | 92.31% | 80.49% | 93.33% |
| | | | PHAR 85 | All Students | 77.78% | 91.30% | 85.71% | 100.00% | 87.10% | 93.75% |
| | | | PHAR 90 | All Students | 97.44% | 95.83% | 96.55% | 100.00% | 100.00% | 92.31% |
| | | | PHAR 95 | All Students | 97.14% | 96.00% | 100.00% | 100.00% | 100.00% | 89.66% |

Select Success or Course Completion
Course Completion Rate

Population to Display
Cerritos College

Select Characteristic to Diaggregate
All Students

Select Display
Table

Graph Legend

Show Statewide 2023-2024 Rate True



Course Success & Course Completion



Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All

| Division | Department | Subject | Course | Select Student At.. | 2019-2020 Academic Year | 2020-2021 Academic Year | 2021-2022 Academic Year | 2022-2023 Academic Year | 2023-2024 Academic Year | 2024-2025 Academic Year |
|--------------------|------------|---------|---------|---------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Grand Total | | | | | 84.91% | 90.98% | 90.61% | 88.41% | 87.96% | 90.43% |
| Health Occupations | PHAR | PHAR | PHAR 50 | Traditional | 87.50% | 88.52% | 83.33% | 87.50% | 78.72% | 97.78% |
| | | | PHAR 55 | Traditional | 85.48% | 89.36% | 96.72% | 73.68% | 89.09% | 90.38% |
| | | | PHAR 56 | Online | | 89.36% | 93.75% | 75.93% | 89.09% | 92.31% |
| | | | | Traditional | 86.89% | | 100.00% | | | |
| | | | PHAR 57 | Traditional | 92.59% | 88.68% | 93.75% | 89.13% | 85.19% | 82.46% |
| | | | PHAR 63 | Online | | 90.70% | 100.00% | 95.00% | 97.22% | 85.71% |
| | | | | Traditional | 93.18% | | 91.67% | | | |
| | | | PHAR 64 | Online | | 94.29% | 100.00% | 100.00% | 90.32% | 96.97% |
| | | | | Traditional | 82.93% | | 75.00% | 95.00% | | |
| | | | PHAR 65 | Traditional | 76.92% | 86.84% | 82.76% | 97.14% | 96.88% | 100.00% |
| | | | PHAR 81 | Online | | 100.00% | 87.50% | 79.69% | 78.95% | 82.54% |
| | | | | Traditional | 72.73% | 82.76% | 81.25% | | | |
| | | | PHAR 83 | Traditional | 68.89% | 88.37% | 79.41% | 92.31% | 80.49% | 93.33% |
| | | | PHAR 85 | Online | | 96.00% | | | | |
| | | | | Traditional | 77.78% | 100.00% | 85.71% | 100.00% | 87.10% | 93.75% |
| | | | PHAR 90 | Online | | | 100.00% | | | |
| | | | | Traditional | 97.44% | 95.83% | 95.83% | 100.00% | 100.00% | 92.31% |
| | | | PHAR 95 | Online | | | 100.00% | 100.00% | 100.00% | 80.00% |
| Traditional | 97.14% | 96.00% | | 100.00% | | | 91.67% | | | |

Select Success or Course Completion
Course Completion Rate

Population to Display
Cerritos College

Select Characteristic to Diaggregate
Mode of Instruction

Select Display
Table

Graph Legend

Show Statewide 2023-2024 Rate True

The lowest course completion rate (retention) are in Phar 57 (82.46%), this course is a zoom mandatory course which is part of the other two introductory course series. It is possible that students taking the 1st 9 weeks introductory courses simply take more courses than they can handle and end up not completing this course, unable to drop students before the last drop date. Phar 81 (82.54%) is an asynchronous pharmacology course which does not have any pre-requisites. Many students enrolling in this course are not taking any other pharmacy technology courses and are exploring to see if they like the topic. Many stop completing modules and forget to drop the course and it appears too late for the instructor to drop them in time.

Pharmacy Technology course success rates are higher after the introductory courses which is expected. Students are exploring the field in the introductory courses where some might choose not to continue where others proceed.



Course Success & Course Completion



Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All

| Division | Department | Subject | Course | Select Student Attribute | 2019-2020 | 2020-2021 | 2021-2022 | 2022-2023 | 2023-2024 | 2024-2025 |
|--------------------|------------|---------|---------|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | | | Academic Year | Academic Year | Academic Year | Academic Year | Academic Year | Academic Year |
| Grand Total | | | | | 76.73% | 79.08% | 80.29% | 81.34% | 77.55% | 82.28% |
| Health Occupations | PHAR | PHAR | PHAR 50 | All Students | 81.25% | 67.21% | 61.67% | 68.75% | 68.09% | 93.33% |
| | | | PHAR 55 | All Students | 82.26% | 89.36% | 91.80% | 66.67% | 78.18% | 75.00% |
| | | | PHAR 56 | All Students | 78.69% | 80.85% | 96.67% | 68.52% | 78.18% | 84.62% |
| | | | PHAR 57 | All Students | 90.74% | 79.25% | 89.06% | 80.43% | 79.63% | 71.93% |
| | | | PHAR 63 | All Students | 88.64% | 83.72% | 84.91% | 87.50% | 91.67% | 78.57% |
| | | | PHAR 64 | All Students | 70.73% | 88.57% | 74.19% | 94.74% | 90.32% | 93.94% |
| | | | PHAR 65 | All Students | 76.92% | 78.95% | 75.86% | 97.14% | 93.75% | 96.67% |
| | | | PHAR 81 | All Students | 56.36% | 64.41% | 64.06% | 67.19% | 57.89% | 69.84% |
| | | | PHAR 83 | All Students | 64.44% | 81.40% | 73.53% | 92.31% | 73.17% | 80.00% |
| | | | PHAR 85 | All Students | 77.78% | 80.43% | 85.71% | 97.56% | 74.19% | 84.38% |
| | | | PHAR 90 | All Students | 87.18% | 91.67% | 82.76% | 96.00% | 88.46% | 92.31% |
| | | | PHAR 95 | All Students | 62.86% | 80.00% | 80.00% | 95.45% | 76.00% | 89.66% |

Select Success or Course Completion
Success Rate

Population to Display
Cerritos College

Select Characteristic to Diaggregate
All Students

Select Display
Table

Graph Legend

Show Statewide 2023-2024 Rate True



Course Success & Course Completion



Show Annual Plan Question

Show IPR Question

Division
Health Occupations

Department
PHAR

Subject
All

| Division | Department | Subject | Course | Select Student At.. | 2019-2020 Academic Year | 2020-2021 Academic Year | 2021-2022 Academic Year | 2022-2023 Academic Year | 2023-2024 Academic Year | 2024-2025 Academic Year |
|--------------------|------------|---------|---------|---------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Grand Total | | | | | 76.73% | 79.08% | 80.29% | 81.34% | 77.55% | 82.28% |
| Health Occupations | PHAR | PHAR | PHAR 50 | Traditional | 81.25% | 67.21% | 61.67% | 68.75% | 68.09% | 93.33% |
| | | | PHAR 55 | Traditional | 82.26% | 89.36% | 91.80% | 66.67% | 78.18% | 75.00% |
| | | | PHAR 56 | Online | | 80.85% | 93.75% | 68.52% | 78.18% | 84.62% |
| | | | | Traditional | 78.69% | | 100.00% | | | |
| | | | PHAR 57 | Traditional | 90.74% | 79.25% | 89.06% | 80.43% | 79.63% | 71.93% |
| | | | PHAR 63 | Online | | 83.72% | 82.76% | 87.50% | 91.67% | 78.57% |
| | | | | Traditional | 88.64% | | 87.50% | | | |
| | | | PHAR 64 | Online | | 88.57% | 80.00% | 94.44% | 90.32% | 93.94% |
| | | | | Traditional | 70.73% | | 68.75% | 95.00% | | |
| | | | PHAR 65 | Traditional | 76.92% | 78.95% | 75.86% | 97.14% | 93.75% | 96.67% |
| | | | PHAR 81 | Online | | 66.67% | 65.63% | 67.19% | 57.89% | 69.84% |
| | | | | Traditional | 56.36% | 62.07% | 62.50% | | | |
| | | | PHAR 83 | Traditional | 64.44% | 81.40% | 73.53% | 92.31% | 73.17% | 80.00% |
| | | | PHAR 85 | Online | | 80.00% | | | | |
| | | | | Traditional | 77.78% | 80.95% | 85.71% | 97.56% | 74.19% | 84.38% |
| | | | PHAR 90 | Online | | | | 100.00% | | |
| | | | | Traditional | 87.18% | 91.67% | 79.17% | 96.00% | 88.46% | 92.31% |
| | | | PHAR 95 | Online | | | | 68.75% | 95.45% | 76.00% |
| Traditional | 62.86% | 80.00% | | 92.86% | | | 91.67% | | | |

Select Success or Course Completion: Success Rate
 Population to Display: Cerritos College
 Select Characteristic to Diaggregate: Mode of Instruction
 Select Display: Table

Graph Legend

Show Statewide 2023-2024 Rate: True

Introductory courses success rates which are in general lower than other courses. For example, in 2024-2025 the introductory course success rates were:

- Phar 50: 93.33%
- Phar 55: 75%
- Phar 57: 71.93%
- Phar 63: 78.57%
- Phar 64: 93.94%
- Phar 65: 96.67%
- Phar 81: 69.84% asynchronous course

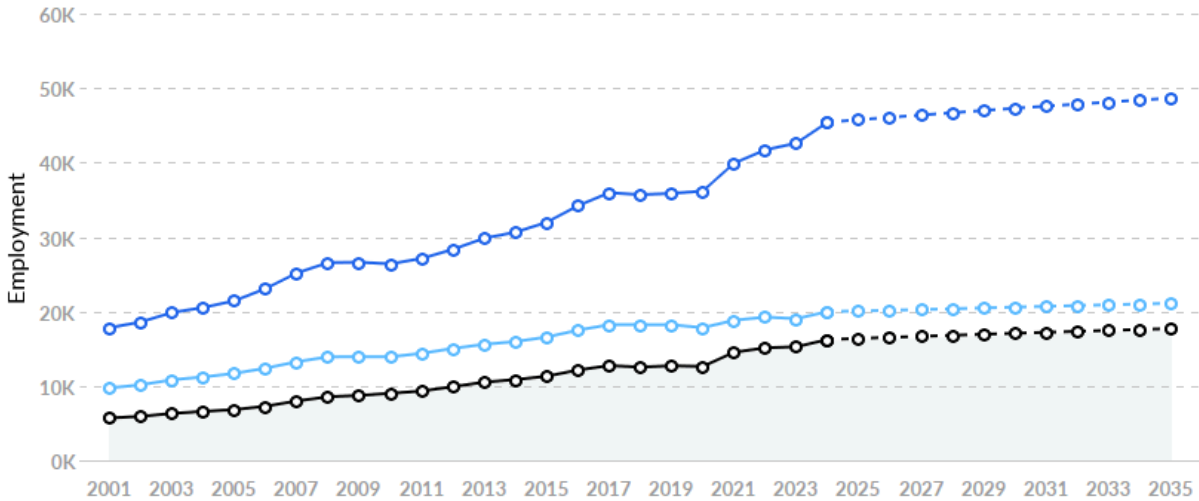
When looking at the last 6 year we can see that Phar 57 (soft skills course) the success rate was in 2019-2020 90.74% when the course was in person. The success rate during covid dropped to 79.25% in 2020-2021, then increased steadily, then dropped to 71.93% in 2024-2025. Currently the course is over zoom offered remotely. Moreover, the course changed instructors in 2024-2025 which could be contribute to the decrease in success and retention.

5. Discuss conclusions drawn from the program data, assessments (SLOs), and/or other data. Indicate any specific responses or programmatic changes based on the data. Analysis of the Pharmacy Technology Program data and Student Learning Outcomes (SLO) assessments indicates that overall student performance and program outcomes remain strong. The SLO results demonstrate a generally high level of mastery, consistent with the program's strong course success rates (76%–82%) and course completion (retention) rates (around 90%). One area identified for improvement involves math-related SLOs, where only 37% of students achieved a "Good" level of mastery and 39% a "Satisfactory" level. This aligns with trends observed in other math-intensive courses across the college. In response, the program has prioritized additional student support by seeking to embed a dedicated tutor and by encouraging student participation in targeted tutoring sessions designed to strengthen math and technical skills.

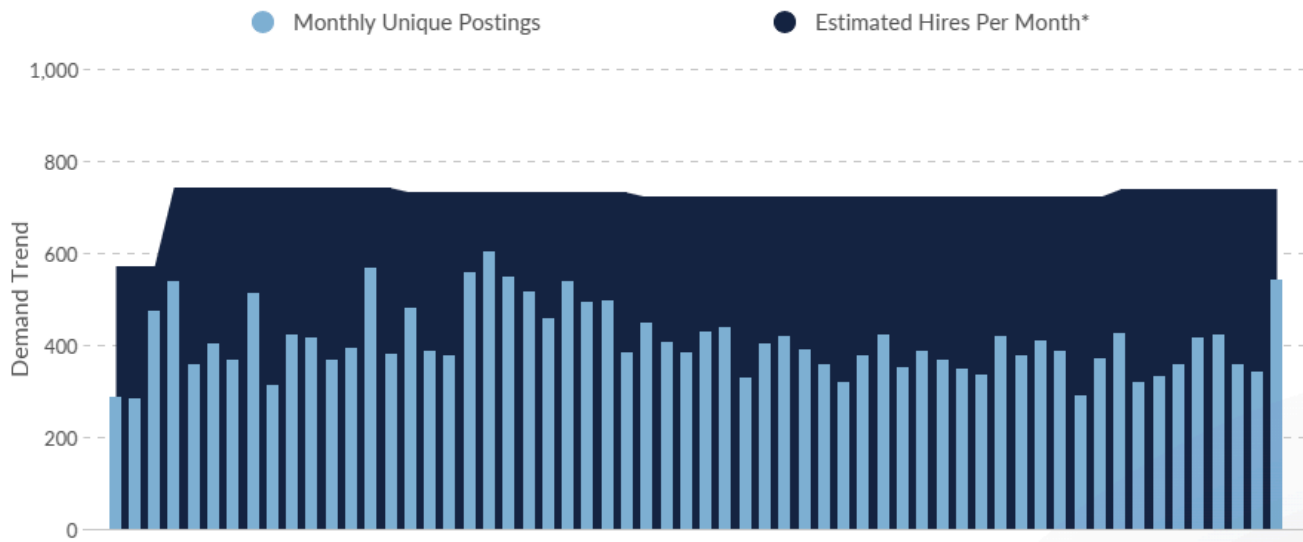
1. How strong is the labor market demand for the program? Utilizing labor market data, describe changes in demand over the last six years and discuss the occupational outlook for the next six years.

The labor market demand shows a strong need for pharmacy technicians. In the last six years, there was 28.9% increase in jobs from 12,706 to 16,379. That is higher than both the California and National increases. The average monthly hires from Jan 2019 to Sept 2025 was 724. In the future, the demand for Pharmacy technicians is going to continue to grow as in prior years, this is due to several factors:

1. Aging population and increase in script count all across different pharmacy fields (outpatient pharmacies, inpatient pharmacies, home healthcare, infusion pharmacies, long term care facilities etc.), better management of chronic diseases using medications.
2. Changes in laws and regulations expanding pharmacy technicians roles (Immunizing pharmacy technician, ambulatory care pharmacy technicians, advanced pharmacy technicians etc.).
3. Career progression (many pursue pharmacy school after working in the field as a technician or promotion and succession planning)



| Region | 2019 Jobs | 2025 Jobs | Change | % Change |
|--------------------|-----------|-----------|--------|----------|
| ● LAOC | 12,706 | 16,379 | 3,673 | 28.9% |
| ● National Average | 18,207 | 20,063 | 1,857 | 10.2% |
| ● California | 35,852 | 45,749 | 9,897 | 27.6% |



| Occupation | Avg Monthly Postings (Jan 2019 - Sep 2025) | Avg Monthly Hires (Jan 2019 - Sep 2025) |
|----------------------|--|---|
| Pharmacy Technicians | 410 | 724 |

2. How does the program address needs that are not met by similar programs in the college's region/service area? Identify and describe any distinctive component of the program and/or unique contributions.

Cerritos College Pharmacy Technology program is an ASHP/ACPE program that offers a certificate program as well as an associate degree in Pharmacy Technology. In Los Angeles county there aren't any ASHP/ACPE accredited programs that offer an associate's degree (example: West LA College offers an AS degree in Pharmacy tech, however, their program is NOT ASHP/ACPE accredited). The only 2 programs in Southern California that offer both a certificate and an AS degree that are accredited by ASHP/ACPE are Cerritos College and Santa Ana College. However, Santa Ana College offers an Entry level certificate program (which is NOT accredited) granting licensure and the opportunity to work in a community pharmacy setting only. The Santa Ana advanced level program is accredited by ASHP/ACPE however, has not graduated a viable number of students that are trained to work in an institutional (hospital setting). Other programs in the area are non-credit accredited programs or not accredited or adult school program who only offer simple training.

Cerritos College Pharmacy Technology program is the only program in Southern California with an articulation agreement with 3 graduate professional schools (Chapman, WesternU and Marshall B Ketchum Pharmacy School) who will grant a direct transfer after completing an AS degree (pre-requisite course completion). Moreover, students interested in completing their Bachelor's degree and transferring to a 4 year university are able to complete their certificate and their AS degree at Cerritos college and transfer to a 4 year institution.

The ability to obtain an AS in Pharmacy Technology grants pharmacy technicians a status which allows them to practice as a license pharmacy technician with advanced practice components which are not available to those completing other training program that do not offer an AS degree.

Furthermore, the Cerritos College Pharmacy Technology program is the only program in the LA/Orange County area that offers 3 Pharmacology courses that are transferable to a CSU for credit.

3. What is the success, completion, and employment rates for students in the program? Identify the standards set by the program for each metric and discuss any factors that may impact the metrics for students in the program. Based on the program's benchmarks, describe the status of any action plans for maintaining/improving the metrics.

Data shows that Pharmacy Technology students take an average of 4.8 years to complete their Associate of Science (AS) degree and about 4.5 years to complete a Certificate degree. Since many of our students are already enrolled at Cerritos and are completing general education courses while still exploring their career goals, this data likely reflects the overall time they have spent at the college rather than the time dedicated specifically to their program. It would be interesting to examine how many of these students began the program as new Cerritos College students. The majority of program participants, however, complete their studies within 18 months and obtain licensure within 60 days.

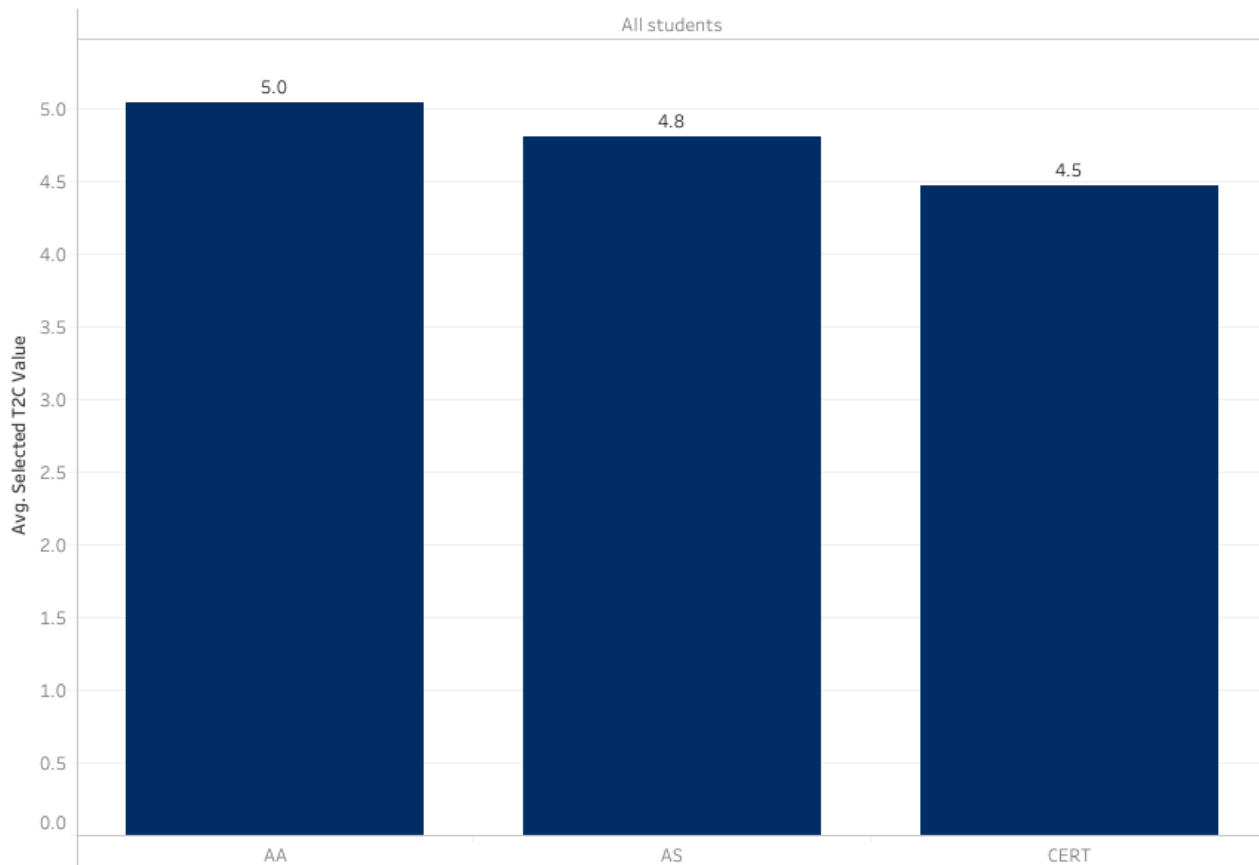


Time to Complete by Student Attributes



"What is the estimated average years to complete 1st award of those who completed in the selected years?"

This view aggregates the graduates from the selected completion years. Up to two attributes may be selected to visualize. The tabular display further ..



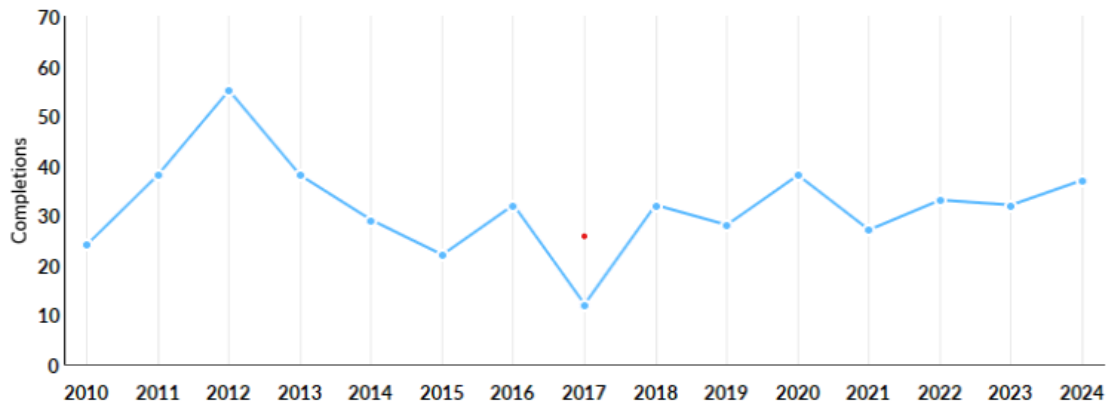
Completion Year(s):
Multiple values

Student Attribute #1 (color):
All students

Student Attribute #2:
Degree Awarded

Display:
Graph

Graduates of the program were, on average, 35.4% of the market share over the last six years for jobs needing an education level of associates or less.



| Award Level | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Award of less than 1 academic year | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Award of at least 1 but less than 2 academic years | 10 | 24 | 33 | 24 | 12 | 7 | 13 | 7 | 19 | 12 | 18 | 12 | 20 | 17 | 17 |
| Associate's Degree | 14 | 14 | 22 | 14 | 17 | 15 | 19 | 5 | 13 | 16 | 20 | 15 | 13 | 15 | 20 |
| Award of at least 2 but less than 4 academic years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bachelor's Degree | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Postbaccalaureate certificate | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Master's Degree | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Post-masters certificate | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Doctor's Degree | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 24 | 38 | 55 | 38 | 29 | 22 | 32 | 12 | 32 | 28 | 38 | 27 | 33 | 32 | 37 |

4. List any licensure/certification exam(s) required for entry into the workforce in the field of study and report the most recent pass rate(s) among program graduates. Identify performance benchmarks set by regulatory agencies and based on the program's benchmarks, describe the status of any action plans for maintaining/improving the pass rates.

Pharmacy technicians are granted a licensure from the California State Board of Pharmacy upon completion of the program. The program provides graduates with an affidavit of program completion which is part of the licensure application. Certification exam are elective, pass rate since January 1, 2020 till October 6, 2025 is 80%. Students may choose to take the test if they are applying for job that require national certification.

Section 3. Instructional Program Learning Outcomes Assessment

A. SLO Assessment Report : Version by Makarem, Nasiba on 09/26/2025 02:37

| Course By SLO | Expected Performance | Performance |
|--|----------------------|-------------|
| PHAR55 - Pharmacy Introduction | | |
| Students will be introduced to the field or pharmacy and the different settings. (Active from 2018 FA) | 100.00% | 60.96% |
| PHAR63 - Pharmacy Operations II | | |

| Course By SLO | Expected Performance | Performance |
|---|----------------------|-------------|
| Students recognize the major issues impacting the pharmacy profession (Active from 2013 FA) | 100.00% | 71.19% |
| Students will demonstrate knowledge of pharmacy abbreviations. (Active from 2013 FA) | 100.00% | 87.92% |
| Students explain and/or demonstrate how to properly fit a patient with a pair of crutches. (Active from 2013 FA) | 100.00% | 94.04% |
| PHAR64 - Pharmacy Operations III | | |
| Student will be able to define the terms "sterile" and "non-sterile" as applied to pharmacy. (Active from 2019 FA) | 100.00% | 34.21% |
| Students are able to compound sterile admixtures according to USP standards. (Active from 2019 FA) | 100.00% | 74.56% |
| PHAR185 - Pharmacy Technician Pharmacology II | | |
| Students identify the brand and generic names of medications discussed in course (Active from 2013 FA) | 100.00% | 51.41% |
| Students describe the therapeutic uses of the drug categories taught in this course. (Active from 2013 FA) | 100.00% | 46.32% |
| Students recognize major side effects of the drug categories taught in this course. (Active from 2013 FA) | 100.00% | 53.85% |
| Students show understanding of significant drug-drug, drug-herb, drug-food interactions. (Active from 2013 FA) | 100.00% | 56.74% |
| PHAR50 - Pharmaceutics | | |
| Students perform the mathematical steps to solve for the correct strength or amount of medication. (Active from 2013 FA) | 100.00% | 32.72% |
| Students perform the mathematical steps to solve for the correct dilution and concentration. (Active from 2013 FA) | 100.00% | 56.22% |
| Students perform the mathematical steps to solve for the correct weight and measures, and direct ratio and proportion. (Active from 2013 FA) | 100.00% | 24.42% |
| PHAR55 - Pharmacy Introduction | | |
| Students will demonstrate knowledge of pharmacy abbreviations (Active from 2013 FA) | 100.00% | 78.97% |
| Students will explain how state laws and regulations determine what activities associated with receiving and screening prescription and medication orders for completeness and authenticity can be delegated by pharmacists to technicians. (Active from 2013 FA) | 100.00% | 32.54% |
| PHAR56 - Pharmacy Skills Lab Introduction | | |
| Students when given a prescription order will generate a label set with complete accuracy. (Active from 2013 FA) | 100.00% | 41.72% |
| Students will demonstrate skill in the use of first-person and electronic systems to receive prescription and medication orders. (Active from 2015 FA) | 100.00% | 46.21% |
| Students will interpret a prescription order, and subsequently type and fill that order with the correct medication. (Active from 2013 FA) | 100.00% | 74.48% |
| PHAR57 - Pharmacy Operations I | | |
| Students will demonstrate the steps to take to find and secure employment. (Active from 2013 FA) | 100.00% | 80.00% |
| Students will identify blocks to effective interpersonal communication and demonstrate effective communication. (Active from 2013 FA) | 100.00% | 72.24% |
| PHAR64 - Pharmacy Operations III | | |
| Student will be able to explain why certain medications must be sterile. (Active from 2013 FA) | 100.00% | 39.47% |
| Students will demonstrate the proper procedures for maintaining the sterility of an IV admixture when compounding a sterile product. (Active from 2013 FA) | 100.00% | 56.36% |

| Course By SLO | Expected Performance | Performance |
|---|----------------------|-------------|
| Students will demonstrate the proper procedures for maintaining the sterility of materials being collected for compounding a sterile product. (Active from 2013 FA) | 100.00% | 58.18% |
| Students are able to perform proper hand washing, garbing and hood cleaning according to USP standards. (Active from 2013 FA) | 100.00% | 73.84% |
| Students perform sterile IV calculations accurately prior to sterile compounding. (Active from 2013 FA) | 100.00% | 41.28% |
| PHAR65 - Pharmacy Operations IV - Non-Sterile Compounding | | |
| Student will be able to define the term "compounding". (Active from 2013 FA) | 100.00% | 67.11% |
| Students will be able to compound various medications including oral lozenges, creams, syrups and suppositories. (Active from 2013 FA) | 100.00% | 72.93% |
| Students calculate accurate math computations when compounding prescriptions. (Active from 2013 FA) | 100.00% | 36.42% |
| Students demonstrate compliance in the use of a class A or digital balance. (Active from 2013 FA) | 100.00% | 61.84% |
| Students identify the FDA guideline for determining BUD for compounded prescriptions. (Active from 2013 FA) | 100.00% | 84.46% |
| Students differentiate between manufacturing and pharmaceutical compounding. (Active from 2013 FA) | 100.00% | 75.66% |
| PHAR181 - Over-The-Counter Products | | |
| Students identify the correct over-the-counter drug classifications and therapeutic use . (Active from 2013 FA) | 100.00% | 51.09% |
| Students evaluate the labeling, packaging, and marketing of over-the-counter products. (Active from 2013 FA) | 100.00% | 11.35% |
| Students describe the therapeutic uses of the drug categories taught in this course. (Active from 2013 FA) | 100.00% | 22.27% |
| Students identify the most common non-medicinal treatments, including herbal products, used by consumers. (Active from 2013 FA) | 100.00% | 35.37% |
| PHAR183 - Pharmacy Technician Pharmacology I | | |
| Students identify the brand and generic names of medications discussed in course (Active from 2013 FA) | 100.00% | 58.52% |
| Students describe the therapeutic uses of the drug categories taught in this course. (Active from 2013 FA) | 100.00% | 61.65% |
| Students recognize major side effects of the drug categories taught in this course. (Active from 2013 FA) | 100.00% | 45.65% |
| Students have awareness of significant drug-drug, drug-herb, drug-food interactions. (Active from 2013 FA) | 100.00% | 44.03% |
| PHAR90 - Clinical Experience I | | |
| Students will accurately describe the day-to-day job duties of a pharmacy technician working in a community based pharmacy. (Active from 2013 FA) | 100.00% | 38.34% |
| Students will achieve accuracy on pharmacy abbreviations exam. (Active from 2013 FA) | 100.00% | 90.16% |
| Students, when presented with a prescription, will be able to process computer generated outpatient prescription label sets. (Active from 2013 FA) | 100.00% | 62.18% |
| PHAR95 - Clinical Experience II | | |
| Students will accurately describe the day-to-day job duties of a pharmacy technician working in an acute care facility. (Active from 2013 FA) | 100.00% | 82.64% |
| Students will accurately identify the generic name of medications when presented with the brand name. (Active from 2013 FA) | 100.00% | 42.36% |

| Course By SLO | Expected Performance | Performance |
|---|----------------------|-------------|
| Students will accurately identify the trade name of medications when presented with the generic name. (Active from 2013 FA) | 100.00% | 28.47% |
| Student will demonstrate the proper procedure for maintaining the sterility of materials being collected for compounding a sterile product. (Active from 2013 FA) | 100.00% | 45.83% |

B. SLO Assessment Analysis : Version by Makarem, Nasiba on 11/20/2025 18:18

1. Explain the frequency (i.e., when and how often) and content of assessment process (e.g., planning, data collection, and results) for the program (e.g., department meetings, advisory boards, etc.). Also, describe the process for reviewing and discussing outcomes data.

Student Learning Outcomes (SLOs) are submitted each semester by faculty for every course. Program planning and data analysis are conducted annually as part of the unit planning process. The department meets monthly to review results, discuss feedback, and identify areas for improvement. Additionally, the Advisory Board meets twice a year—in the fall and spring semesters—where program data, outcomes, and recommendations are presented and discussed.

At the end of each semester Faculty meet with program director for SLO submission training and review.

2. Describe the process for development of plan for improvement and summarize the changes that discipline faculty plan to implement based on the analysis of the student learning and program effectiveness. Provide specific examples.

Plan for improvement is continuously reviewed during the advisory meeting, faculty department meetings and after attending large conferences where change is forecasted in the field. Moreover, feedback from clinical sites during student externships are collected and discussed with faculty and advisory board. Advisory board meetings are held twice a year (once a semester).

Examples: increase in simulation lab was advised during the 2023 accreditation and advisory meeting. Program faculty met to identify courses that could benefit from a reduction in lecture time and an increase in lab time. The advisory committee members then were presented with a plan to increase lab time for Phar 64 and 65 and reduce the lecture time in order to give students more hands on experience. Once approved by the advisory committee the department then moved forward with curriculum change.

Clinical site feedback to increase clinical hours for outpatient pharmacy from 120-140 hours to prepare students better. In order to achieve the hours increase it was necessary to meet with the California Board of Pharmacy to change regulation, once the regulation changed then a curriculum change was able to take place.

C. Curricular Course Review : Version by Chavez, Esthela on 10/25/2025 00:08

1. Provide the curriculum course review timeline to ensure all courses are reviewed at least once every six years.

Curriculum has been reviewed in the last 4 year (on an ongoing basis) and the following course have been updated:

Phar 64- increase lab time.

Phar 65-increase lab time. (updated SP 2025)

Phar 81, updated to Phar 181 (updated SP 2025)

Phar 83, updated to Phar 183 (updated SP 2025)

Phar 85, updated to Phar 185 (updated SP 2025)

Notation of the this update should be reflected on the "course sequence" on the Pharmacy Technology website.

<https://www.cerritos.edu/pharmacy-technology/pharmacy-technician-course-sequence.htm> (<https://www.cerritos.edu/pharmacy-technology/pharmacy-technician-course-sequence.htm>)

2. Explain any course additions to current course offerings.

PHAR 327 - Principles of Pharmacology

This is an upper division General Education course, designed for students in the Dental Hygiene Baccalaureate Degree Program. The emphasis is on the clinical indications and uses of medications encountered in dental settings. Students will learn general principles of pharmacology, including pharmacodynamics, pharmacokinetics, and pharmacogenetics and be able to discuss mechanisms of drug action, drug interactions, adverse effects, and toxicities of selected medication. The effects of medications on dental health are also reviewed with a focus on consumer education. This course is open only to California Community College baccalaureate students.

Transfer Credit: CSU

*This course is NOT designed for Pharmacy Technicians.

3. Explain any course deletions and inactivation's from current course offerings.

Courses that are not pertinent to program were deleted, these courses have not been offered in many years:

- Phar 73
- Phar 74

4. Discuss how well the courses, degrees, and/or certificates meet students' transfer or career training needs. Consider the following questions:

- **Have all courses that are required for the program's degrees and certificates been offered during the last two years? If not, has the program established a course offering cycle?**
- **How has degree and/or certificate completion changed over time?**
- **Are there sufficient completers compared with the size of your program?**

All courses that are required for the program's degrees and certificates have been offered during the last two years. All courses offered are needed for students to complete the program so they can:

1. Obtain their certificate
2. Get their affidavit of completion so they can get licensed by the California Board of Pharmacy
3. Complete their AS degree if desired

The program's completion rate has remained consistently strong at 90–100% since 2019, indicating a sufficient number of completers relative to the program's size.

5. Are any licensure/certification exams required for program completion or career entry?

- **If so, what is the pass rate among graduates?**
- **Set an attainable, measurable goal for pass rates and identify any applicable performance benchmarks set by regulatory agencies.**

- Upon completion of the program students receive an affidavit of course work completion required by the California Board of Pharmacy as part of the student's technician license application. Once students file their application with the CA BOP and complete a background check they are granted a license to practice as a Pharmacy Technician.
- In the state of California pharmacy technicians are NOT required to be nationally board certified.
- Graduates are NOT mandated to take the certification examination, however, individuals might choose to take the national certification examination (PTCE) and become PTCB/board certified to be more marketable. Last ~6 years Cerritos College graduates pass rate is at 80% compared to the national pass rate of 70%.
- Many elect to take the PTCE and PTCB certified for various reasons:
 - Some employers (such as the VA hospital) require national certification along with the state license.
 - Some employers pay more if an employee is certified (example CVS and Walgreens)
 - Some employers prefer PTCB candidates when hiring.
 - Newly changed regulation in California allows those who hold a PTCB certification can perform Advanced Pharmacy Technician duties such as providing immunizations and other pharmacy duties that cannot be otherwise performed by those without the certification.



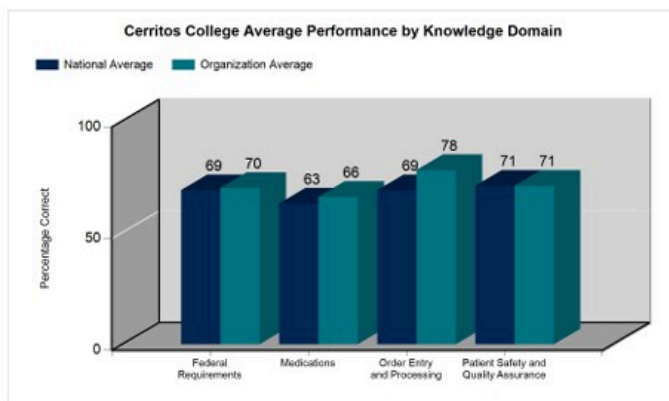
EDUCATOR PASS RATE SUMMARY REPORT

Cerritos College

For exams administered between 1/1/2020 and 10/23/2025

Pharmacy Technician Certification Exam

| | |
|-------------------------------|-----|
| Number of Exams Passed: | 44 |
| Number of Exams Administered: | 55 |
| Percentage Passed: | 80% |
| National Average Pass Rate: | 70% |



PTCE performance shown in percentage of questions answered correctly by knowledge domain:

| Domain | Federal Requirements | Medications | Patient Safety and Quality Assurance | Order Entry and Processing |
|----------|----------------------|-------------|--------------------------------------|----------------------------|
| National | 69 | 63 | 71 | 69 |
| Account | 70 | 66 | 71 | 78 |

Section 4. Instructional Program Reflection

A. Six-Year Program Reflection : Version by Chavez, Esthela on 10/25/2025 00:08

1. Provide an analysis of your program throughout the last six years, reflecting on student demographics and enrollment. Reflect on any changes you would like to see in your program in the next six years.

Demographic analysis shows gradual shifts in the student population. Over the last six years, the proportion of students aged 19 and younger has increased from 10% to 18.5%, while the 20–24 and 25–34 age groups have declined slightly. Hispanic/Latino students continue to represent the largest group, though their proportion has decreased slightly from 70% to 67%. White student representation has increased (from 4.7% to 8.5%), while Asian student representation has decreased modestly (from 13.3% to 11.5%). The program continues to serve a predominantly female population, consistent with college-wide trends. First-generation student representation fluctuates between 37% and 45%.

Program enrollment declined during the COVID-19 years but showed modest recovery in 2021–2022, stabilizing in recent years. Despite fluctuations in enrollment, the program has maintained high success and retention rates, outperforming college and state averages. Overall, course completion rates have remained consistently high across both face-to-face and online modalities (averaging 88.5% over six years). While introductory courses tend to have slightly lower success rates, the overall trend shows steady improvement. For example, the six-year average course success rate increased from 77% in 2019–2020 to 82% in 2024–2025, outperforming both the state average (74%) and the college average (67–70%).

In the next 6 years we would like to utilize more marketing material to increase program visibility and enrolment. We are also collaborating with WesternU to create a direct path to pharmacy school and partnering with their marketing department to promote Cerritos College as the preferred prerequisite institution before applying to their professional graduate school.

We speculate that the enrollment demographic will continue to be very similar. The job market continues to attract those interested in Pharmacy and about 1-5% of our students continue to Pharmacy School to obtain their Doctorate in Pharmacy, thus the AS degree in combination with the license are very helpful in achieving this end result.

2. What is the six-year trend of degrees and certificates awarded? Is there anything you can do to help increase the number of students who acquire degrees and/or transfer?

The six year trend of degrees and certificates awarded:

2019-2020: AS 20; Certificated: 18
 2020-2021 AS 16; Certificated: 12
 2021-2022 AS 13; Certificated: 20
 2022-2023 AS 15; Certificated: 17
 2023-2024 AS 20; Certificated: 17
 2024-2025 AS 16; Certificated: 18

The program has partnered with Western University of Health Sciences (WesternU) to establish a direct pathway to pharmacy school. WesternU has also collaborated with two local high schools to counsel pre-pharmacy students and guide them toward completing their prerequisite courses at Cerritos College. The program will continue to strengthen relationships with

Chapman University and Marshall B. Ketchum University to create additional transfer pipelines for students pursuing pharmacy degrees. Furthermore, the planned update of the program's pharmacology course to a 100-level, CSU-transferable course will encourage more students to transfer and apply their Pharmacy Technology coursework toward a bachelor's degree.

3. Were there any unplanned events (positive or negative) that affected your program? If so, what were they and how did they affect the program?

The program was affected by COVID, hospital sites stopped taking ANY students during the pandemic. The students who were planning to complete their clinicals were delayed till they were allowed to go back and finish their hours. Once allowed back into clinical sites many had imposed stricter on boarding processes which in some instances made it harder on students (increased vaccination requirements, masking requirement etc.).

During the pandemic, we continued to provide students with simulation labs (which helped with the success rate as we were able to continue interact with the students in person however, per accreditation requirements students had to complete their clinicals before they can receive their certificate. We had a period of a few months where we had to postpone clinical rotations.

All courses moved to online modality for the lecture portions, one faculty member was not prepared nor trained to deliver course material in a distance education form which affected the way students learned. In addition, some courses were not designed prior to the pandemic to deliver the material in an online modality which affected student learning.

4. Please describe any recent achievements in your program by faculty and staff who have won awards or distinctions, new projects your program has implemented, committee work, professional development work, conference presentations, community engagement, or recently published work.

The pharmacy technology program has collaborated with several Pharmacy School to establish an articulation agreement for a direct path transfer for students interested in completing their Doctorate in Pharmacy degree. Chapman, Marshall B Ketchum and Western U all have an articulation agreement with several students who have completed the directly transfer into the Pharm.D. program. In September the Cerritos College Pharmacy technology program was part of the showcase at Marshall B Ketchum school of pharmacy where the Academic rotation offered by the Pharmacy Technology program to pharmacy school student was presented. Former pharmacy tech students/ Alumni visited and showed interest in participating in the academic rotation. Both Dr. Makarem and Dr. Shields attended a week training in both sterile and non-sterile compounding in Texas where we learned the most up-to-date compounding skills.

5. Provide a status update on goals from the last program review cycle.

| SWOT (Strengths, Weaknesses, Opportunities and Threats) | Goals | Action to be taken | Deadline | Person Assigned |
|--|---|---|--|--|
| UPDATES 2025 | Mid-range goals (next 3 years) | | | |
| W1 Update 2025: with some available division funds we obtained marketing material which has been used to market the program in health fairs and other program show cases. There has not been a consistent marketing person helping promote the department. | 1. Request marketing expert to promote the program. | With the available funds request a marketing expert to help promote the program. | Fall 2020- Continuous | Nasiba Makarem Sandy Marks |
| S3, O2 Update 2025: revised the following courses to allow transferability to a Cal-State (81 to 181, 85 to 185 and 83 to 183). | 2. Write/Revise/ curriculum for AS Degree, class updates and submit to Curriculum committee for approval. | Update pharmacy curriculum to align with changes in the profession | Fall 2020- Implemented/achieved | Nasiba Makarem |
| W6 2025 update (last 6 years data): Continue to track PTCB, current rate at 80% goal still set for 90%. Encouraging students to purchase a review book and enroll in PTCB sample exam questions provided by PTCB to increase passing. | 3. Track PTCB Pass rates and keep them equal to or greater than 90% | Participate in the PTCB Educator Program. | Fall 2022- Continuous | Ralph Casas Nasiba Makarem |
| W2 2025 update: Embedded tutors are now part of most courses. AED- tutoring also offered 2 times a week and we encourage students to participate to increase pass rate. | 4. Participate in the Embedded Tutor program to help students with math a pharmacology. | Process the request for an embedded tutor. | Fall 2020- implemented/achieved | Ralph Casas |
| S7, S8, O3 2025 update: chairs replaced in 2024. This was a furniture update as the old furniture was breaking. | 5. Replace pharmacy classroom chairs. Continue to upgrade pharmacy equipment and software. | Seek for funding from the appropriate area in the college to replace all classroom chairs, as they are too old. Request funds from strong workforce to upgrade the unit dose machine. | Fall 2021- Implemented/achieved | Nasiba Makarem Sandy Marks |
| S3, O2 2025 update: eLumen still has these course available, however, advisory committee does not see the value in such a certificate as anyone can apply for these jobs. Will continue to explore. | 6. Explore internal Pharmacy Ancillary Certificate for students completing introductory course in Pharmacy Technology | Revise the OLD Clerk Certificate with curriculum to align with the needs of the businesses in the area. | Fall 2022- on hold for now | Nasiba Makarem |
| W1, T1 2025 update: will continue to explore dual enrollment. Collaborating with WesternU for a direct path to Pharmacy School | 8. Offer high school Pharmacy Technology introductory classes. | Increase enrollment and market the program to the high schools in the area. | Spring 2020- in progress | Nasiba Makarem Julie Shields Sandy Marks |
| W5 2025 update: last survey completed in 2023. | 9. Survey current students and graduates annually. | Send graduate surveys annually. Create current student survey to send annually and review data. | Fall 2022- Implemented/achieved | Nasiba Makarem |
| W1, O1 2025 update: a division collaborate effort. | 10. Marketing | Hire a division marketing specialist who will promote the program. | Fall 2022- in progress | Sandy Marks |
| W9 2025 update: achieved 100% compliance. Submitted every semester. | 11. Student Learning Outcomes electronic reporting. | E-mail, remind and discuss during department meetings the importance of uploading SLO for each class into eLumen for better data retrieval. | Spring 2020- Implemented/achieved | Nasiba Makarem |
| | Long Term Goals | | | |

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|--|--|--|--|--|
| S2, S3, S4, S16 2025 update: Accreditation entity proposed new standards which will take effect in 2026 (less stringent) | 1. Collaborate with CSHP, ASHP, and PTEC to advocate more stringent licensure requirements for pharmacy technicians. | Continue to follow ASHP Model Curriculum," keep updated with changes to California Board of Pharmacy regulatory changes as well as ASHP standards, become involved with CSHPs Pharmacy Technician Association. | Fall 2024- Completed | Nasiba Makarem |
| O2 2025 update: Accreditation entity proposed new standards which will take effect in 2026 (less stringent), CA board of pharmacy considers AS degree with license as advanced pharmacy technician, there is no need for this new certificate. | 2. Develop an Advanced Pharmacy Technician Certificate. | Write new curriculum with the advanced degree guidelines. | Fall 2026- In progress monitoring regulatory changes. | Nasiba Makarem |
| W7 2025 update: some PT faculty are attending professional development through their other employment, share new developments in pharmacy during department meetings. | 3. Improve part-time faculty development. | Facilitate and obtain funds for professional development by attending pharmacy conferences. Very important for the development of the program. | Fall 2023- Implemented/achieved | Nasiba Makarem |
| O8 2025 update: continue to engage alumni through pinning ceremony participation and advisory committee meetings. | 4. Increase participation and number of alumni members on advisory committee. | Contact employed alumni via email and invite them to attend advisory meetings. | Fall 2025- Implemented/achieved | Nasiba Makarem |
| S10, S24 2025 update: Have articulation agreements with: 1- Chapman pharmacy school 2- Western U pharmacy school 3- Marshall B Ketchum pharmacy school | 5. Develop articulation agreements to create a path to pharmacy schools. | Work as a liaison between pharmacy schools and the articulation office at Cerritos College to facilitate such agreements. | Fall 2025- Implemented/achieved | Nasiba Makarem Sandy Marks Ken Matusua |

6. If applicable, describe the resources the program received from the last review cycle and the impact it had on the program?

From the general funds we received a budget to replace the classroom chairs which were broken. The funds were needed to update the classroom furniture for students to be able to sit safely in class/ lab.

The program continues to apply annually for the Strong workforce funds to replace and upgrade simulation equipment in the lab to provide students with the most up-to-date technology to better prepare them for the work place. The program was able to replace the Omnicell machine which was originally acquired in 2010 with a 6 years service agreement. The new Omnicell which was purchased ~4 years ago with a service agreement is essential for training students on how to use the equipment so they are ready to use it when completing their clinicals. When students start their clinicals they have already been trained on the use of the Omnicell and are given access to the machine. This saves the sites training time and manpower.

Furthermore, the program was able to replace the old dispensing machine with a new dispensing robot (ScriptPro) which has newer technology. Students are able to learn how to use it in the lab and be prepared to use it in the field. We continue each year to replace malfunctioning scales, broken beakers and other equipment to make sure students have access to the most up-to-date resources mirroring the pharmacy field.

Section 5. Instructional Program Goals and Resource Requests

A. Six-Year Program Goals and Resource Requests