

Cerritos College

Instructional Program Review Instructional Program Review Planning Form (Appendix A)

This form is to be prepared by each program under review and submitted by January 31 in the year prior to the review year.

Program Name: Pharmacy Technology

Evaluation Team: Chair: _____ Nasiba Makarem _____

Members: _____ Ralph Casas _____

Date Submitted _____ 1/14/2020 _____

Date of Visitation _____ 1/21/2020 _____ (The
visitation date will be assigned by the IPR committee)

Due date for Final Self Study Report _____ 1/17/2020 _____
(Two weeks prior to the visitation date)

Due date for Draft of Self Study Report _____ 12/20/2020 _____
(Six weeks prior to the visitation date)

I have contacted Kristi Blackburn, IPR representative from Institutional Effectiveness, Research, and Planning. Completed

I have contacted Stephanie Rosenblatt, IPR representative from the Cerritos College Library. Completed

Submitted by: Nasiba Makarem
Program Department Chair

Reviewed by: Sandy Marks
Division Dean

Reviewed by _____
IPR Committee Chair

Instructional Program Review

Curriculum Committee Program Review Checklist (Appendix D)

It is expected that programs undergoing review are up-to-date with all requirements related to curriculum. Please complete this self-checklist and list any discrepancies in your report as part of your SWOT analysis and goals.

Check	List
X	Course outlines have been reviewed within the last 3 years.
X	Courses that have not been offered over the last three years have been reviewed and are scheduled for inactivation.
X	Prerequisites/co-requisites have been reviewed to assure they are still necessary. Content review and/or statistical validation has been completed within the last 3 years. CTE course prerequisites need to be reviewed every 2 years.
X	Course outlines list current texts and Electronic Information Technology to comply with Board Policies and the law: Cerritos College BP & AP 3720,3411 and Section 508 standards (law).
X	Course outlines list current SLOs.
X	Current course outlines have been submitted to the curriculum specialist in the Academic Affairs office.
N/A	Courses offered as distance education have been approved by the Curriculum Committee to be offered as DE and match the delivery methods outlined in the original proposals.
N/A	(If applicable) text outlines are available for faculty teaching a course for the first time.
X	Required courses for the degrees and certificates have been offered within the last 2 years.
X	Enough elective courses for the degrees and certificates have been offered within the last 2 years.
X	Degrees/certificates have been reviewed to identify any inactivated, deleted, or changed courses. If applicable, the program has been updated to reflect these changes.
X	All department courses are part of an approved degree or certificate.
X	Current degrees and certificates have been updated.
	Students are completing the degrees and/or certificates. If not, the degree/certificate has been reviewed for change or inactivated.



Annual Student Learning Outcome (SLO) Assessment Goals (Appendix E)

As part of the ongoing process of self-evaluation and improvement, Cerritos College has developed a process for defining, assessing and evaluating SLOs at the Course, Program and Institutional levels. The SLO process is coordinated through a Faculty Senate Committee which encourages all faculty to engage in the process and develop meaningful plans for improvement. The resulting improvement plans provide a link from instructional programs to the College planning and resource allocation process through the Program Review Plus system. Below are guidelines which Department Faculty should use in preparing their self-study report section related to SLOs:

1. Post the assessment results for the 3 most current academic years available for Course Student Learning Outcomes (CSLOs), Program Student Learning Outcomes (PSLOs) and Institutional Student Learning Outcomes (ISLOs) to the Program Review Plus system in the data section. This information is available either from the SLO Committee website or from preparing "Performance Reports" in the eLumen software.
2. Post all of your Department's "Action/Improvement Plans" to the Program Review Plus system for any plans developed and consider including any of the information in your SWOT analysis, Goals, Activities and Resource requests.
3. In your self-study report, prepare a brief narrative summarizing the data and plans described in 1 and 2 above and insert it in section 1b.

Note: When the quantity and quality of the SLO assessments are determined to be lacking or inadequate, Department Faculty should develop a goal to address these concerns for future reporting periods.

(This document was approved by the SLO Committee on October 22, 2018)

Please complete the tables below to demonstrate that your department is completing the assessment goals. You will find the data you need to complete these tables by printing two reports in eLumen:

- For degrees and certificates: Print the "SLO Performance - ISLO/PSLO

Overall” report ○ For courses: Print the “SLO Performance - By Dept,
Course, CSLO” report

For instructions on how to print these reports, click here
<http://cms.cerritos.edu/slo/course-degree-and-certificate-slos/elumen.htm> To complete the
table, answer the questions for each academic year since your last six-year Program Review.

Degree and/or Certificate SLO(s)				
Academic Year	Number of Degrees and/or Certificates Offered by the Department	Number of Degrees and/or Certificates Assessed by the Department	Number of Degree and/or Certificate SLOs identified by the Department	Total Number of Degree and/or Certificate SLOs Assessed by the Department
2019	2	0	12	0
2018	2	0	12	0
2017	2	0	12	0
2016	2	0	12	0
2015	2	0	12	0
2014	2	0	12	0

Course SLO(s)				
Academic Year	Total Number of Courses Offered by the Department	Total Number of Courses Assessed by the Department	Total Number of Course SLOs offered by the Department	Total Number of Course SLOs Assessed by the Department
2019	12	6	46	424
2018	12	0	46	0
2017	12	0	46	0
2016	12	0	46	391
2015	12	0	46	0
2014	12	0	46	0

Cerritos College

Instructional Program Review Instructional Program Review Submittal Form (Appendix F)

This form is completed and submitted as a cover sheet for the self-study report

Name of the Program _____ Pharmacy Technology _____

Date Submitted _____ 1/14/2020 _____

Scheduled Presentation Date _____ 1/21/2020 _____

All courses in the program have been reviewed by the Curriculum Committee within the last six year cycle (*circle one*) N/A

Note from Phally: I'm not sure what the practice was before, but Curriculum does not review programs or keep record of it being reviewed unless it is brought in for modifications. I'm looking at the agendas from 2014 to now, and I don't see it on any of the agendas or minutes. The chancellor's office narrative has a 2013 version. Hope that helps.

Explain any exceptions for non-compliance with curriculum requirements:

The self-study report adequately addresses the following components:

Description of the Program	Yes		No
Course and program content	x		
Student demographics	x		
Human resources	x		
Instructional Improvement	Yes		No
Teaching effectiveness	x		
Activities to improve student learning	x		
Course grading	x		
Course and program completion	x		
Program outcomes	x		
Core indicators (if vocational)	x		
Student feedback	x		
Institutional data	x		
Other	Yes		No
Strengths and weaknesses of the program	x		
Opportunities and threats of the program	x		
Goals of the program	x		

Self-Study prepared by: _____ **Nasiba Makarem** _____ Reviewed by
(Division Dean): _____ **Sandy Marks** _____

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Instructional Program Review Instructional Program Review Checklist (Appendix G)

This form is completed by the IPR committee during the review of each program's self-study report presentation (Phase 4)

Name of the Program _____ Pharmacy Technology _____

Visitation Date _____ 1/21/2020 _____

IPR Committee Liaison _____

Evaluation of Compliance with Institutional Requirements	Yes	No
All courses in the program have been reviewed by the Curriculum Committee within the last six year cycle?	N/A	N/A
Program is in compliance with guidelines established by the Student Learning Outcomes task force?	x	
Institutional Data used is current as of the draft due date?	x	
Program and Primary Data included information which is less than 2 years old?	x	

The self-study report adequately addresses the following components:

Description of Component

Description of the Program	Yes	No
Course and program content	x	
Student demographics	x	
Human resources	x	
Instructional Improvement	Yes	No
Teaching effectiveness	x	
Activities to improve student learning	x	
Course grading	x	
Course and program completion	x	
Program outcomes	x	
Core indicators (if vocational)	x	
Student feedback	x	
Institutional data	x	
Other	Yes	No
Strengths and weaknesses of the program	x	
Opportunities and threats of the program	x	
Goals of the program	x	

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**Instructional Program Review Instructional Program Review
Approval Form (Appendix H)**

Committee Action taken:

Approved

Not Approved

Recommendations:

Program Review Chair _____

Explanation for non-approval:

Cerritos College Pharmacy Technology Department: Better Technicians through Better Education.

Program Mission

It is the mission of the Pharmacy Technology Department to provide information, resources, simulations, and activities that support student learning outcomes and help students achieve the educational and career goals important for success in the profession and as part of their life-long mastery of physical, social, and intellectual skills. To achieve this, faculty members aspire:

- To model an environment where instructors and students are co-participants in the learning process.
- To facilitate an environment where faculty and students creatively engage one another in an ongoing dialogue concerning the issues facing health-care professions.
- To share a common vision of the patient as the central focus of the healthcare system and, consequently, that faculty and students dedicate themselves to the health and well-being of society and the construction of healthy systems of relationships.

Program Philosophy

The faculty members of the Pharmacy Technology Department believe that a comprehensive, integrated educational approach acknowledging the learner as the central focus of the learning process will develop pharmacy technician graduates who exhibit the appropriate skills, knowledge, and values necessary to achieve competence in the profession of pharmacy.

To achieve this, clinical and academic faculty serve as guides and role models as students move from novice to competent practitioners. The Pharmacy Technology Department affirms that it shall:

- Provide a high caliber curriculum that mirrors the current standards of practice in pharmacy.
- Provide students with a broad-based education that lays the ground-work for advancement into diverse pharmacy careers.
- Provide students with the technical skills and tools necessary to obtain employment as pharmacy technicians in a technologically advanced world.
- Provide a foundation that enables graduates to continue planning, attaining and evaluating their continuing educational needs.
- Provide training in effective oral, written and non-verbal communication skills for the benefits of patients, colleagues and other members of the health care team.
- Prepare students for employment in a variety of settings and with a diverse patient population.
- Prepare students to practice within the laws and regulations set forth by Federal and California State Board of Pharmacy, and the ethical tenets of the American Association of Pharmacy Technicians.
- Prepare students who are capable of applying knowledge, skills, and demeanor in a manner that ensures comprehensive assistance to the patient and the supervising pharmacist so that treatment may be accomplished expeditiously.

Pharmacy Technician Training Program

Pharmacy technicians are skilled technical health workers who perform a wide variety of non-discretionary pharmacy related tasks under the supervision of a registered pharmacist in a variety of health care settings.

The Pharmacy Technician training program was created in 1978 as a part-time evening program. In 1999, the department was reorganized and the name changed to “Pharmacy Technology Department.” At that time the program offered both a Pharmacy Clerk and a Pharmacy Technician training program.

The certificate program requires 31 units for certification and takes 3 to 4 semesters to complete for full time students. The A.A. requires 60 semester units and takes 2 to 3 years to complete. The Pharmacy Technician training program is accredited through the American Society of Health-System Pharmacists (ASHP/ACPE). The most recent self-study and site-visit occurred in spring 2017. The program received full accreditation with few recommendations. The next accreditation self-study and site-visit will take place in 2023.

Successful completion of the pharmacy technician program qualifies students for licensure as a Pharmacy Technician with the California State Board of Pharmacy. Graduates are also encouraged to complete the Pharmacy Technician Certification Exam, the nationally recognized certification exam for pharmacy technicians offered by the Pharmacy Technician Certification Board.

Pharmacy Technicians: Job Forecast

The pharmacy technician profession is experiencing rapid change, mirroring changes in the pharmacy profession and in pharmaceutical treatments. The increase in the Pharmacists’ scope of practice has created the need for a more versed pharmacy ancillary help. Pharmacists are looking to hire a more educated and well-trained pharmacy technicians to better support their needs. The U.S. Bureau of Labor Statistics (BLS) is projecting the employment of pharmacy technicians to grow 7 % from 2018 to 2028, faster than the average for all occupations. (<https://www.bls.gov/ooh/healthcare/pharmacy-technicians.htm>). Increased demand for prescription medications and other medical services such as clinical services (immunizations, disease management etc.) will lead to more demand for pharmaceutical services.

Detailed Occupational **Employment projections** for Los Angeles and Orange County combined, forecasts a 9.3% increase in the employment of Pharmacy Technicians through 2022.

The data above shows new positions plus “additional openings due to net replacements.” Net replacements measure the number of workers needed to replace those who leave the labor force or change occupations.

The Pharmacy Technician training program draws students from LA County, Orange County, San Bernardino County, and Riverside County. The demand for technicians has increased as pharmacy technician jobs have increased. There are approximately 18,393 open positions for pharmacy technicians in California as a whole and 6,491 job openings in LA and Orange County combined.

In Southern California, only 2 community colleges offer a similar training program where students can earn a certificate and an AA/AS degree. All other accredited programs only offer certificates (one of the closest programs in our area is a school of continuing education).

There are 26 ASHP accredited programs in California, where there are only 3 programs that offer an AA/AS degree (23 technical schools that provide training and certification without a degree). Many others continue to train pharmacy technicians without accreditation. In these programs, students can seek licensure by taking the Pharmacy Technician Certification Exam through the Pharmacy Technician Certification Board (PTCB).

Beginning in 2020, the PTCB will become stricter in the way a person can become nationally licensed. There will be only two ways to obtain the national certification, one will be completion of a PTCB-recognized education/training program, and the other will be equivalent work experience. The change will most likely decrease the amount of candidates seeking national licensure and thus decrease the number of certified technicians in California.

When looking at the chart below one should understand the following:

North Orange Adult Division is an accredited program that does not offer any college credit and thus students graduating from this program cannot obtain an AA/AS using the completed courses. As for Santa Ana College, only a portion of the reported students obtain an ASHP/ACPE certification, the rest will achieve an internal certificate (non accredited) which will grant them pharmacy technician licensure only. Cerritos College's pharmacy technology program only offers an ASHP/ACPE certificate to all their graduates. Rio Hondo, LA Mission College and West LA College all offer courses that are for non-credit and are not ASHP/ACPE accredited programs.

Offerings



<https://www.calpassplus.org/LaunchBoard/Community-College-Pipeline.aspx#>

Pharmacy Technology Program vs. Cerritos College Overall Statistical Comparison

The pharmacy technology student population reflects students of varying ages who are ethnically, culturally, and socio-economically diverse and who mirror the communities from which they are drawn.

Statistics:

<u>Pharmacy Technology Race Count</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
American Indian or Alaskan Native						
Asian	58	48	32	26	22	21
Black or African American	19	13	6	9	6	10
Hispanic or Latino	145	124	116	104	100	92
Native Hawaiian or Other Pacific Islander						2
Race/ethnicity Unknown	27	14	10	7	11	8
Two or More Races	7	7	5	6	7	6
White	13	15	9	6	10	8

<u>Race Percentage</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
American Indian or Alaskan Native						
Asian	21.6%	21.7%	18.0%	16.5%	14.1%	14.3%
Black or African American	7.1%	5.9%	3.4%	5.7%	3.8%	6.8%
Hispanic or Latino	53.9%	56.1%	65.2%	65.8%	64.1%	62.6%
Native Hawaiian or Other Pacific Islander						1.4%
Race/ethnicity Unknown	10.0%	6.3%	5.6%	4.4%	7.1%	5.4%
Two or More Races	2.6%	3.2%	2.8%	3.8%	4.5%	4.1%
White	4.8%	6.8%	5.1%	3.8%	6.4%	5.4%

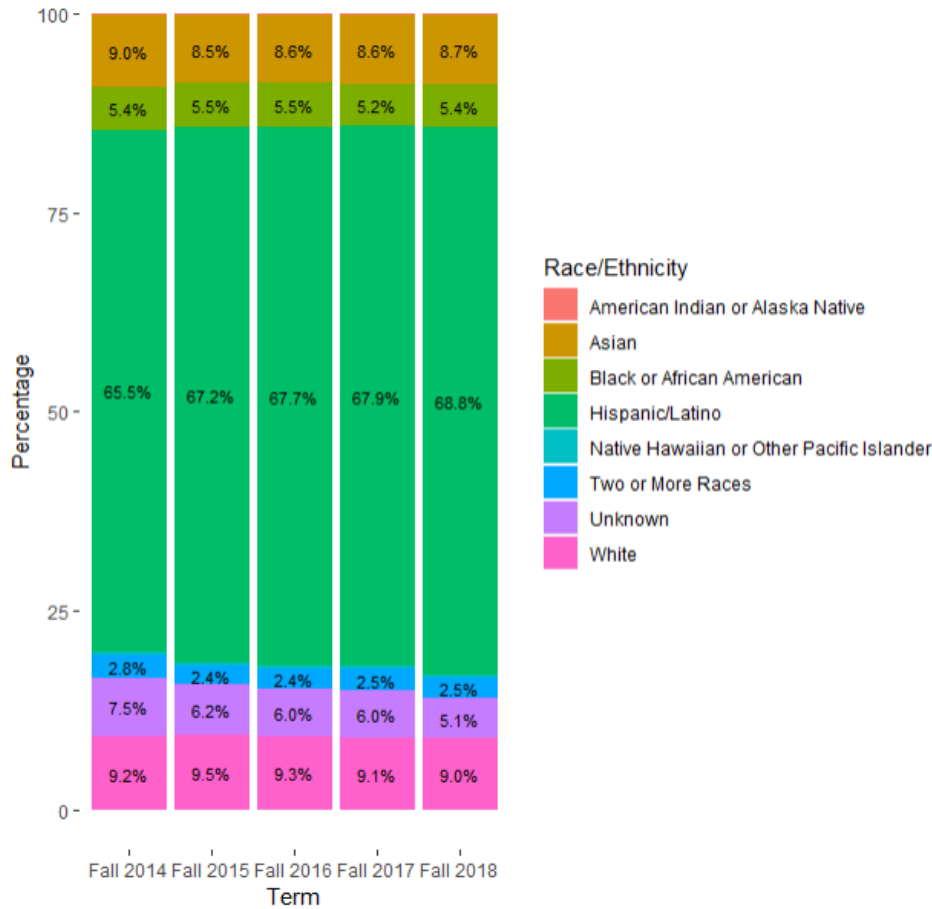


Factbook: Race/Ethnicity

Institutional Effectiveness, Research & Planning

October 18, 2019

Student Demographic: Race/Ethnicity Chart



<u>Pharm Tech Age Count</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
19 or less	34	25	20	18	27	15
20 - 24	144	119	81	71	57	75
25 - 29	49	47	43	42	44	34
30 - 34	19	14	16	15	13	14

<u>Pharm Tech Age Count</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
35 - 39	7	8	12	5	5	5
40 - 49	15	9	7	5	10	5
50 or more	9	7	6	5	5	3

<u>Age Percentage</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
19 or less	12.3%	10.9%	10.8%	11.2%	16.8%	9.9%
20 - 24	52.0%	52.0%	43.8%	44.1%	35.4%	49.7%
25 - 29	17.7%	20.5%	23.2%	26.1%	27.3%	22.5%
30 - 34	6.9%	6.1%	8.6%	9.3%	8.1%	9.3%
35 - 39	2.5%	3.5%	6.5%	3.1%	3.1%	3.3%
40 - 49	5.4%	3.9%	3.8%	3.1%	6.2%	3.3%
50 or more	3.2%	3.1%	3.2%	3.1%	3.1%	2.0%

Cerritos College Statistics:

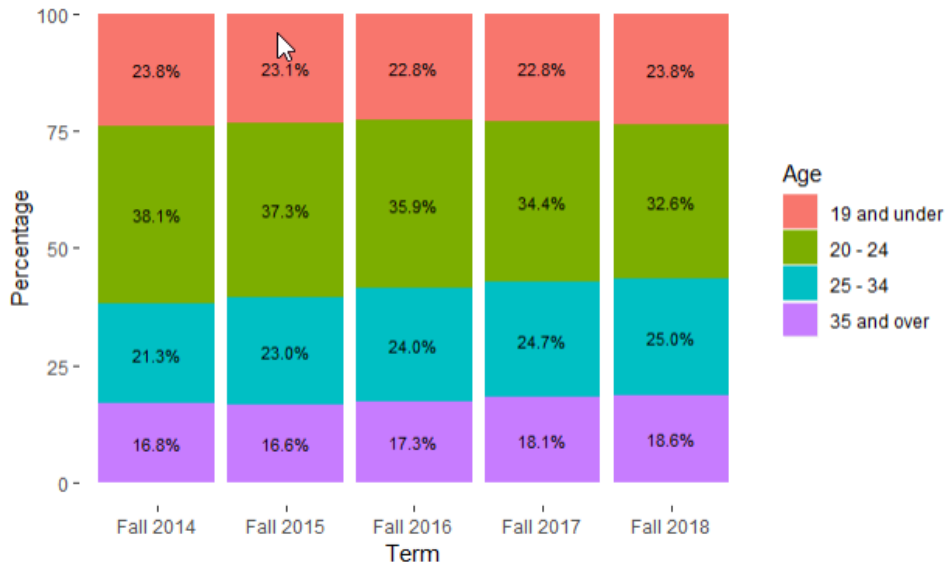


Factbook: Age

Institutional Effectiveness, Research & Planning

October 18, 2019

Student Demographic: Age Chart



Pharmacy Technology

<u>Gender Count</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Unknown	3	2	2	3	1	2
Male	96	78	65	53	56	46
Female	170	141	111	102	99	99
<u>Gender Percentage</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Unknown	1.1%	0.9%	1.1%	1.9%	0.6%	1.4%
Male	35.7%	35.3%	36.5%	33.5%	35.9%	31.3%
Female	63.2%	63.8%	62.4%	64.6%	63.5%	67.3%

Cerritos College Age Data:

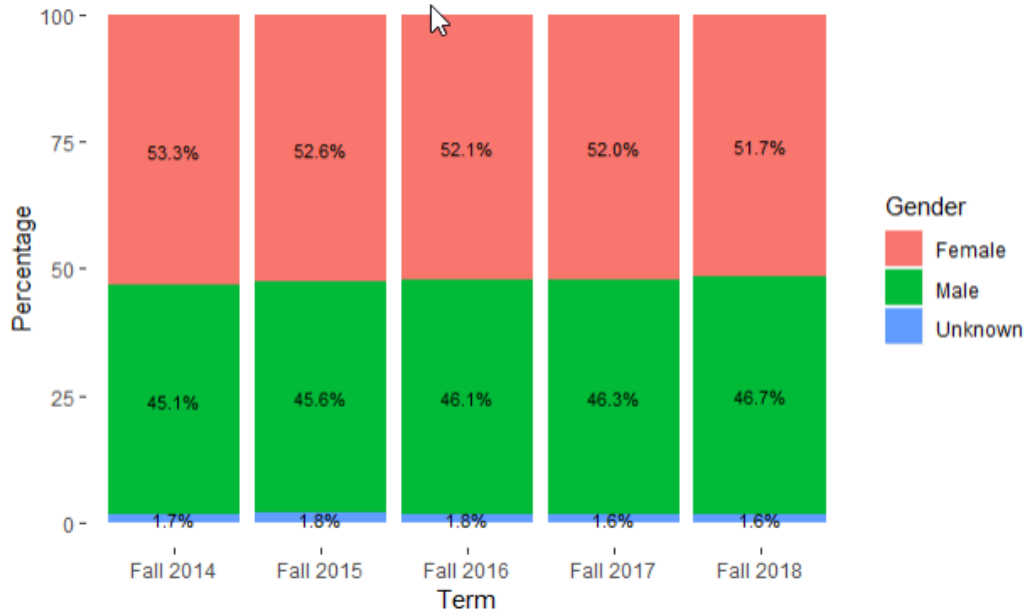


Factbook: Gender

Institutional Effectiveness, Research & Planning

October 18, 2019

Student Demographic: Gender Chart



The majority of students in the Pharmacy Technology program are less than 25 years of age and Asian or Hispanic. Both the Pharmacy Technology Program and Cerritos College as a whole consists of students between the ages of 20-24. The demographic of the students in the program mirror closely the demographics of Cerritos College. It appears though that the program draws mostly Hispanics (62.6%) and Asians (14.3%) while the top student populations at Cerritos College consist of Hispanics (68.8%) and Whites (9%). The gender distribution in the Pharmacy Technology program is consistent with the field of Pharmacy which is mainly Female dominated. The overall college enrollment is also consistent with the program enrollment which has a ratio higher in females than males.

Students Success Data:

<u>Pharm Tech Race Success Rate</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
American Indian or Alaskan Native						
Asian	82.3%	85.5%	88.6%	77.3%	73.4%	79.7%
Black or African American	74.6%	67.7%	60.0%	87.1%	73.1%	82.9%
Hispanic or Latino	75.8%	80.7%	79.0%	78.9%	76.4%	81.8%
Native Hawaiian or Other Pacific Islander						83.3%
Race/ethnicity Unknown	75.9%	68.8%	73.5%	60.0%	71.4%	59.1%
Two or More Races	60.0%	65.5%	70.0%	67.9%	87.5%	61.1%
White	80.0%	89.5%	70.0%	82.6%	88.6%	87.5%

<u>Race Completion Rate</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
American Indian or Alaskan Native						
Asian	89.5%	90.9%	95.5%	81.3%	78.5%	89.2%
Black or African American	81.4%	77.4%	70.0%	93.5%	80.8%	90.2%
Hispanic or Latino	84.5%	87.0%	85.5%	84.6%	81.7%	86.5%
Native Hawaiian or Other Pacific Islander						83.3%
Race/ethnicity Unknown	83.9%	87.5%	82.4%	76.0%	82.9%	63.6%
Two or More Races	93.3%	72.4%	70.0%	67.9%	91.7%	88.9%
White	83.1%	92.1%	75.0%	82.6%	88.6%	87.5%

<u>Gender Success Rate</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Male	76.0%	83.7%	75.8%	73.8%	71.6%	75.8%
Unknown	62.5%	66.7%	20.0%	54.5%	100.0%	77.8%
Female	78.1%	79.1%	80.7%	80.5%	79.4%	82.5%

<u>Gender Completion Rate</u>	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
Unknown	100.0%	83.3%	60.0%	54.5%	100.0%	100.0%
Male	84.9%	89.9%	81.9%	79.1%	79.2%	86.1%
Female	85.5%	85.8%	87.0%	86.2%	83.6%	86.1%

Pharmacy Technology Overall Success Rate:

Term Academic Year Description	Distinct Count	Completion Rate	Success Rate
2018-2019	147	86.3%	80.4%
2017-2018	156	82.2%	76.8%
2016-2017	158	83.3%	77.9%
2015-2016	178	85.0%	78.6%
2014-2015	221	87.2%	80.6%
2013-2014	269	85.4%	77.2%

Overall Cerritos College's Success Rate:

Term Academic Year Description	Distinct Count	Completion Rate	Success Rate
2018-2019	30,930	82.30%	70.20%
2017-2018	29,604	81.10%	68.90%
2016-2017	29,425	82.00%	69.80%
2015-2016	29,487	81.30%	68.90%
2014-2015	29,823	81.40%	68.60%
2013-2014	30,026	81.70%	69.40%

The attractive job market encourages students to complete the program and it is clearly visible when looking at the completion and success rate. In the last six years the Pharmacy Technology Program has a consistent higher completion and success rate when compared to the overall college's data. In 2018-2019 the Pharmacy Technology success rate was 80.4% vs. the college's at 70.20%. The completion rate in the same academic year was 86.3% for the program and only 82.30% for the college.

Strengths:

1. The Pharmacy Technology Department has recruited a diverse range of students.
2. In the last six years the Pharmacy Technology Program has a consistent higher completion and success rate when compared to the overall college's data.
3. The program offers classes to meet the broad needs of student educational goals, including students who want to earn certificates (Pharmacy Technician) or an AA Degree (Pharmacy Technology). The program is accredited by ASHP/ACPE.
4. Changes in the industry present both opportunities and challenges. In 2013, California passed a bill that grants greater oversight of sterile compounding to the state and mandates all hospital pharmacies to register with the California State Board of Pharmacy by June 1, 2014 if they want to continue to prepare IV medications. It also establishes guidelines for inspection of facilities. Training in extemporaneous compounding of medications, home health care with a focus on IV preparation, and chemotherapy are now industry standards. To meet these demands and to prepare graduates for the future, curriculum was revised, and creation of a mock Clean Room was completed.
5. All faculty in the Pharmacy Technology Department are currently registered with the California State Board of Pharmacy either as a Pharmacy Technician or Pharmacist and belong to at least one Pharmacy Association.
6. All instructors who are technicians are certified by the Pharmacy Technician Certification

- Board (PTCB) which requires biennial registration and proof of continuing education.
7. Equipment available in the Health Occupations Skills lab is state-of-the-art and allows the program to create a true “state of the industry” environment. Classroom environment is upgraded (furniture and computers).
 8. The inclusion of equipment used in both retail and acute care settings is up-to-date in the technology arena.
 9. The only program in the state of California that has a Clean Room for sterile IV preparations.
 10. Several students each semester enroll in the program while awaiting admission to Pharmacy School. In fact, Western University School of Pharmacy specifically recommends the Cerritos College Pharmacy Technician Program as a way for students to prepare for their Pharmacy Program; especially while the student is awaiting the beginning of their program.
 11. Classes are scheduled such that students may complete the program as a full-time students, as a part-time day-time students.
 12. The Health Occupations Skills Lab has enabled the Pharmacy Technology Program to emulate the “real world” in almost all of its training. Compared to other programs in the area, the Health Occupations Skills Lab stands apart from any other.
 13. Several Pharmacy managers and hospital pharmacists comment that they prefer Cerritos College students over students from other training programs in the area.
 14. The Compounding Course (PHAR 65) has been unique as not many programs offer it as a stand-alone class. Compounding pharmacies have been popular in the last 15 years and thus the demand for compounding pharmacy technicians as increased. This places the Cerritos College program at the forefront in the teaching of pharmacy technicians.
 15. The American Society of Health System Pharmacists (ASHP/ACPE) is the accrediting agency for pharmacy technician programs. The agency requires the program to meet very specific educational standards.
 16. Beginning in 2020, the PTCB will only allow candidates to take the national licensure exam if they have completed an approved program (which Cerritos College is) or have had equivalent job experience. This should increase our enrollment if we have the right marketing in place.
 17. The department encourages students to join the Pharmacy Technician club on campus. Participating in club activities initiates the student into the professional world as well as facilitating the development of a sense of “teamwork”.
 18. Faculty encourage a mentor-like relationship with students that guides students to take a more active role in their learning.
 19. Students are encouraged to be active learners.
 20. Curriculum is designed to build upon previously learned material.
 21. The Pharmacy Technician advisory committee is very active in recommending changes to the curriculum that reflect current workplace trends.
 22. Tutoring classes held by part time faculty (part of the AED program) have been added to the program which has helped with student success in various courses including math and Sterile Compounding.
 23. Meeting with counselors has helped provide better direction to students.
 24. Actively seeking collaborate articulation agreements with Chapman University and University of Hawaii to enable students to complete their Doctorate Degree in Pharmacy by directly transferring after completing their AA/AS degree in Pharmacy Technology. Once approved will seek for a collaborate articulation agreement with Ketchum University.
 25. Faculty attend Board of Pharmacy meetings to lobby for regulation changes that help advance Pharmacy Technician education (use of Strong Work Force funds).

Weaknesses:

1. **Program Marketing and Visibility:** The College and the Health Occupations division lack program marketing. There was and still is a minimal community awareness of the Pharmacy Technology program at Cerritos College. Lack of professional marketing resources has negatively impacted the Pharmacy Technology program. Surrounding trade programs with increased marketing and advertising are capturing possible candidates. There was and still is a minimal community awareness of the Pharmacy Technology program at Cerritos College, candidates continue to struggle to find Cerritos College's accredited Pharmacy Technology program. Funding is needed to improve marketing of our program and in addition to the funding we need a marketing specialist that will be able to improve visibility of the program at Cerritos College.
2. The **Success Center** is still struggling to provide math support specific to pharmacy. We hope to partner with them to improve students' success rates in pharmacy calculations.
3. **Skills Lab Limitations:** Pharmacy technician students are required to learn technical skills that involve psychomotor skills and require repetitive practice for skills mastery. Currently Cerritos College will only allow one Lab Assistant per lab, where the accreditation body recommends for all labs to have a ratio of no more than 8 students per lab an instructor.
4. Lack of job placement program at Cerritos College and as a result we are unable to collect accurate data on job placement post-graduation.
5. The department does not send student and graduate surveys on an annual basis.
6. Tracking PTCB passing rates.
7. Send full time and part time faculty to obtain certification and continuing education through pharmacy associations. Use Strong Work Force funds to update full time and part time faculty on advances in the profession.
8. Advisory committee includes alumni, however, would like to increase alumni participation.
9. Not all faculty upload their SLO results. Department is missing electronic data for many classes.

Opportunities

1. Health Occupations Division is in the process of hiring a professional marketing person to increase program visibility which will enable us to draw more students to the program. The Dean of Health Occupations to assist all Departments within the Division.
2. As the profession of pharmacy evolves, accreditation standards change. The department must stay on the cutting edge of the profession to incorporate these standards and to meet the needs of the professional workplace. To this end, the learning opportunities for students must be based on current professional trends. We are in the process of updating the curriculum to align with new advances (i.e. SB 655) and continue to qualify for the advanced training certification through ASHP/ACPE.
3. As new techniques and equipment become necessary to be reflective of current standards of care, money needs to be available to purchase state-of-the-art equipment and software which will augment pharmaceutical science and clinical course materials. Perkins funds are used to acquire new and innovative materials as an ongoing process.
4. Cerritos College Pharmacy Technician graduates are sought after within the pharmacy community for their level of knowledge, competence, and preparation. With an increased number of programs opening in California, it is vital that the Pharmacy Technician Program remain competitive, to continue to recruit and retain the best and brightest students, and to graduate students who not only meet the needs of the health-care community but continue to be representative of the programs' high standards of education and expertise.

Threats

1. **Decreased Enrollment:** The economic improvement decreased the number of students who want to complete a pharmacy technician training. Decreased student enrollment is observed when compared to the 2013-2014 enrollment. Since Spring semester of 2016, evening classes have not been offered. This had two effects:
 - Since then, courses where multiple sections had been offered have been reduced to one section per semester.
 - Students who were not able to attend courses during the day, are no longer able to take Pharmacy Technology courses at Cerritos College.
2. Retention and success seen over the past three years: the improvement in economy drove students into the workplace and the value of training and education decrease, though it appears that in 2018-2019 we will increase our completion rate significantly compared to the 2 prior years.
3. Lack of **math readiness** and open entry affected student's preparation and required the department to offer remediation to students in courses that demand accuracy in calculations (PHAR 64, 65, 90, and 95) and clarity in communication (PHAR 90 and 95).
4. Accreditation body deems that all Sterile IV classes **MUST** have a ratio of 1 instructor to 8 students **ONLY**. Cerritos College will not approve such ratio.
5. **Alternate Paths to Licensure:** A significant external factor is the law that enables persons to become licensed with the California State Board of Pharmacy by taking and passing the Pharmacy Technician Certification Board (PTCB) examination.
 - This path to registration has been met with store-front operations and on-line programs that "teach to the test." When students discover that they are not legally bound to take the entire program, they take the exam and become licensed technicians.
 - A number of Cerritos College students take and pass the PTCB exam prior to completing the program. They attend just enough classes to gain the information they need to pass the exam. They then become licensed with the State Board of Pharmacy and begin working as a Pharmacy Technician.
 - Increased number of ROP programs in the surrounding area training students to take the PTCB at a low cost with massive advertisements.
6. The ARRA grant substantially increased enrollment. Funds made available by the ARRA Federal grant enabled the program to offer additional sections of lab and lecture courses, enabling more students to be enrolled in the program. The increased FTES and retention increased the number of students in the program. When the grant ended and class sections were cut, many instructors added students from wait lists to meet the needs of students who needed to complete the program in a timely manner, thus increasing class sizes. 2013-14 was the last year the program was impacted by the grant. Thus, comparing current enrollment with enrollment in 2013-14 gives a false picture of the program.
7. **Student Variables:** An ongoing challenge is offering support services to students who are deficient in the basic skills and whose primary language is not English. This places a great demand on faculty to find creative teaching strategies and support efforts.
 - Strategies must also address students who are experiencing poor economic situations, work and life issues.
 - The large increase in students enrolled in the program has made this challenge even more relevant.

**Cerritos College
Instructional Program
Review**

Instructional Program Review Goal Establishment Form (Appendix C)

SWOT (Strengths, Weaknesses, Opportunities and Threats)	Goals	Action to be taken	Deadline	Person Assigned
	Mid-range goals (next 3 years)			
W1	1. Request marketing expert to promote the program.	With the available funds request a marketing expert to help promote the program.	Fall 2020	Nasiba Makarem Sandy Marks
S3, O2	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	Nasiba Makarem
W6	3. Track PTCB Pass rates and keep them equal to or greater than 90%	Participate in the PTCB Educator Program.	Fall 2022	Ralph Casas Nasiba Makarem
W2	4. Participate in the Embedded Tutor program to help students with math a pharmacology.	Process the request for an embedded tutor.	Fall 2020	Ralph Casas
S7, S8, O3	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	Nasiba Makarem Sandy Marks
S3, O2	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	Fall 2022	Nasiba Makarem

		the area.		
W1, T1	8. Offer high school Pharmacy Technology introductory classes.	Increase enrollment and market the program to the high schools in the area.	Spring 2020	Nasiba Makarem Julie Shields Sandy Marks
W5	9. Survey current students and graduates annually.	Send graduate surveys annually. Create current student survey to send annually and review data.	Fall 2022	Nasiba Makarem
W1, O1	10. Marketing	Hire a division marketing specialist who will promote the program.	Fall 2022	Sandy Marks
W9	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	Nasiba Makarem
Long Term Goals				
S2, S3, S4, S16	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	Fall 2024	Nasiba Makarem

		Association.		
O2	2. Develop an Advanced Pharmacy Technician Certificate.	Write new curriculum with the advanced degree guidelines.	Fall 2026	Nasiba Makarem
W7	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	Nasiba Makarem
O8	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	Nasiba Makarem
S10, S24	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	Nasiba Makarem Sandy Marks Ken Matusua