What are the strengths of your area?: Pharmacy Technician program has several specific strengths:

1. Student Success rates in Pharm Tech courses: Overall pass rate for 2019 was 11 out of 12. This is an increase from the previous year at 68%. Clinical externship courses had a pass rate of 100%, which indicates the students were prepared for the clinical externship requirements for licensure as a pharmacy technician and to work as a Pharm Tech. Faculty, industry standards, affiliate expectations, and course rigor all remained unchanged from the previous year. Student success is directly tied to several factors: the selection of updated, ASHP standard focused, textbooks specifically designed with a Canvas-friendly practice environment to allow students’ to practice and learn pharmacy technician skills and knowledge; curriculum and externship support from the Pharmacy Technician Advisory Board; an increase in number and variety of simulation exercises; an additional hour per week of faculty office time for student interaction and remediation after lab; increasing student and faculty utilization of services on campus: Student Success, MathLab, Writing Center, Career Services, LRC, Health Center, Student pantry, EOPS, Welcome Center, AAC, etc.

2. The pharmacy Technician Advisory Board continues to meet every March and September. Membership includes employers, faculty, pharmacists, Pharmacy Technician Program alumni, pharmacy technicians, current year pharmacy technician students. The Pharmacy Technician Advisory Board is intimately involved in curriculum updates, externship placement, and program success.

3. The Pharmacy Technician Program admits a maximum of 24 students each semester. This instructor: student ratio (1:24) moves the program towards compliance with ASHP Accreditation Standards for Pharmacy technician education and training. (Lecture 1:24, Lab 1:12) Fall 2019 enrollment was 21 students and higher success rates.

4. The Pharmacy Technician Program maintains affiliate contracts with multiple pharmacies for externships. The program has 5 current contracts and 4 approved contracts pending facility signatures. The pharmacy technician instructor coordinates placements with the clinical sites. Currently working to secure additional externship sites to introduce students to multiple practice settings that are now available to pharmacy technicians.

5. The job outlook for Pharmacy Technicians in the Central Valley is expected to grow by 9% from 2017-2022. Pharmacy technician employment growth for 2016-2026 is projected to be 11.8% according to the Bureaus of Labor and Statistics.

6. Curriculum Committee approved the Certificate of Achievement Entry-level Pharmacy Technician and are in the catalog for the 2019-2020 academic year. The new Program (2019-2020) has Curriculum Committee approved prerequisites in place and will lead to a higher success rate. (Previously only approximately 50% of students who registered for first-semester program courses, complete the program.)

7. Jonna Schengel, Associate Dean and Mitch Andrews, Pharm Tech faculty completed the initial phase of a work plan/timeline to develop the program and courses consistent with the ASHP Model Curriculum and PTCB Standards. A timeline has been developed for receiving ASHP accreditation by Summer 2020.

8. The Pharmacy Technician simulation lab structural update is complete; custom cabinets consistent with pharmacy fixtures and facilities as a simulated cleanroom space. The simulation lab is now equipped with adequate numbers of relevant equipment and stocked with pharmaceutical supplies to ensure student success with simulated lab practicals.

9. A marketing plan has been developed to ensure accurate community awareness of the program updates and accreditation plan. Marketing tools and activities include an updated COS pharmacy technician website and web address, a new pharmacy technician program brochure, participation in the COS health science open house, and periodic social media postings. Interdepartmental collaboration is ongoing to ensure a cohesive communication strategy for potential students and COS counselors in regard to program information and expectations.

What improvements are needed?: What improvements are needed?:
1. Evaluate and develop clinical sites needed to ensure a good fit with the curriculum. Pharmacy practice continues to evolve and the program needs additional clinical externship sites that reflect the diversity of this evolution. Improving success rates leads to a subsequent need for additional affiliate sites. Ensuring students are able to get the number of hours required by the program and the California Board of Pharmacy in order for the student to become a registered technician in California is a priority and a challenge.

2. A continuous requirement for updates of the COS Pharmacy Technician website to reflect current Pharmacy Technician Program information and current industry standards.

3. Pharmacy references require frequent updates to ensure students have access to current information, are successful with curriculum, and meet workforce expectations.

4. American Society of Health-system Pharmacists (ASHP) accreditation and Pharmacy Technician Certification Board (PTCB) program approval are required to ensure our program meets current industry standards and ensure students are eligible to take the national certification exam. Local employers increasingly prefer or require ASHP Accredited Training programs and national certification for prospective hires.

5. Improve student simulation lab success. Advisory Board approved an increase of simulation lab hours as part of the curriculum update. Hire adjunct faculty members to support these activities: ASHP Accreditation Standards set maximum instructor: student ratios. (lab 1:12; sterile compounding lab 1:8);

6. Support faculty development for increasing and maintaining clinical skills and current pharmacy standards and knowledge. (VTEA)

7. Reimbursement FT faculty for administrative work related to ASHP accreditation: application, documents, survey preparation, affiliate externship site inspections

Describe any external opportunities or challenges: Pharmacy practice continues to evolve and an adequate variety of clinical externship sites that reflect the diversity are needed to successfully prepare our students for the workforce and ensuring students are able to accrue the required number of hours to become a registered pharmacy technician in California.

ASHP accreditation is an industry-standard of Pharmacy Technician training and education. The American Council on Pharmacy Education (ACPE) accredits pharmacy colleges and advocates for ASHP accreditation of pharmacy technician training programs to ensure they are meeting educational requirements. The Pharmacy Technician Certification Board (PTCB) administers a national pharmacy technician certification exam and requires that training programs meet specific, stringent curriculum requirements. Education/training programs that are ASHP/ACPE accredited are recognized as fulfilling PTCB’s curriculum requirement Starting in 2020 students must have completed a PTCB approved program in order to be eligible to take the national exam. At this time our program is not accredited by ASHP or approved by PTCB and we highly recommend our students take the national exam. We must ensure accreditation by the ASHP during 2020 and approval by PTCB by 2020 in order to place COS Pharmacy Technician graduates in the workforce.

Overall SLO Achievement: Students in the 2018-2019 cohort met all of the assessments in place for that academic year. The student learning outcomes for all of the courses in the Certificate of Achievement Entry-level Pharmacy Technician Program (2019-2020) are completed and in CourseLeaf. All student learning outcomes are directly linked to ASHP Standards. Courses include: PT 200, PT 215, PT 216, PT 217, PT 218, PT 402, PT 225, PT 226, PT 227, PT 228, PT 229, and PT 404

Changes Based on SLO Achievement: Assessment of new SLO will begin in 2019-2020

Overall PLO Achievement: Curriculum update for The Program with prerequisites (PT 200) approved by Curriculum Committee in Fall 2018. Program curriculum completed Spring 2019. All Program Learning Outcomes are linked directly to ASHP Accreditation Standards. This curriculum update will increase the student success rates

Changes Based on PLO Achievement: New courses for Certificate of Achievement Entry-level Pharmacy Technician are completed. Working on ASHP Accreditation by Fall 2020.

Outcome cycle evaluation: Outcome assessment of new curriculum will begin in 2019-2020


The pharmacy technician training program must have inpatient and outpatient experiential training sites to meet ASHP standards. All experiential training sites will be evaluated by the pharmacy technician program faculty or designee annually per ASHP regulations.

Leave Blank: Essential for Operation
Program Review - Pharmacy Technician

Implementation Timeline: 2019 - 2020

Identify related course/program outcomes: Linked to district objective 2.4 Increase Career Technical Education course success rates and program completion annually.

Person(s) Responsible (Name and Position): Mitch Andrews

Rationale (With supporting data): California State Board of Pharmacy requires experiential training for registration as a pharmacy technician. ASHP accreditation regulations and standards require annual inspection of experiential sites which must be reflective of various practice settings.

Priority: High

Safety Issue: No

External Mandate: Yes

Safety/Mandate Explanation: State Pharmacy regulation: pharmacy technician training must include externship hours.

ASHP regulation- Each training site must be evaluated for its appropriateness to the program and meeting student and program objectives.

Implementation Timeline:

2019 - 2020

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10/29/2019

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Our course is set up using ASHP model curriculum and the 2020 blueprint for the PTCB exam to ensure students successfully complete the certification examination.

**Priority:** Medium  
**Safety Issue:** No  
**External Mandate:** No  
**Safety/Mandate Explanation:** This is not mandated yet but is being evaluated to be required by 2020.

### Link Actions to District Objectives

<table>
<thead>
<tr>
<th>District Objectives: 2013-2015</th>
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</thead>
<tbody>
<tr>
<td><strong>2013-2015: District Objective #1</strong> - District Objective #1 for 2013-2015: Provide effective academic support services as measured by an increase in the rate at which students successfully complete courses.</td>
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</tbody>
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<tr>
<th>District Objectives: 2015-2018</th>
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<tbody>
<tr>
<td><strong>District Objectives</strong> - 2.2 - Increase the number of students who earn an associate degree or certificate annually.</td>
</tr>
<tr>
<td><strong>District Objectives</strong> - 2.4 - Increase Career Technical Education course success rates and program completion annually.</td>
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### Action: 2019-2020; Provide current pharmacy equipment that meets ASHP standards.

The goal is to provide current standard pharmacy equipment required to meet ASHP simulation lab requirements. Goal is to host an onsite ASHP survey visit in Summer 2020 and lab space must give students the opportunity for adequate skill attainment in a simulated inpatient and outpatient setting.

Person(s) Responsible (Name and Position): Mitchell Andrews  
Rationale (With supporting data): ASHP standards for Pharmacy Technician training programs include a required list of industry-related equipment and supplies. This equipment is essential for adequate preparation of pharmacy technician students congruent with current industry standards and area industry partners.
Program Review - Pharmacy Technician

Priority: High
Safety Issue: No
External Mandate: Yes
Safety/Mandate Explanation: ASHP mandates adequate equipment and supplies

10.2 The simulated component:
(a) is a hands-on practice of skills without impact, or potential for impact, on patients and occurs before the experiential component;
(b) includes sufficient equipment and supplies for each student to realistically simulate an actual work environment and achieve the program’s educational competencies;

Link Actions to District Objectives

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<th>District Objectives: 2018-2021</th>
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<td>District Objective 2.4 - By 2021, Increase the percentage of CTE students who achieve their employment objectives by 5 percentage points</td>
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</table>

Action: 2019-2020; Provide an ASHP accredited Pharmacy Technician Certificate of Achievement Program to COS students and area employers.

Complete the application and documentation process for the Pharmacy Technician Program to become accredited by ASHP.
Spring 2020: Application
Summer 2020: Survey Preparation Documentation.

Leave Blank:
Implementation Timeline: 2019 - 2020
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Identify related course/program outcomes: All Program and Course outcomes are directly related to ASHP Standards.
Person(s) Responsible (Name and Position): Mitchell Andrews
Rationale (With supporting data): American Society of Health-System Pharmacists (ASHP) and the American Council on Pharmacy Education (ACPE) are partnering to accomplish nationally standardized Pharmacy Technician training and education. ASHP accredited training programs are being required by employers and sought out by students. ASHP Accreditation ensures quality education and improves student employability with industry employers in the area.

In order to write this extensive report, faculty will be reimbursed with a timesheet of a consultant will be hired.
Priority: High
Safety Issue: No
External Mandate: Yes
Safety/Mandate Explanation: ASHP Standard 10, 11

Action: 2019-2020: Provide ongoing ASHP accredited / PTCB approved Pharmacy Technician Program each year via budget augmentation

The goal is to provide students access to current industry-standard equipment, supplies, and references each year via budget augmentation of $9000.
Annual accreditation fees, reference replacement cycle collaboration with the library, industry-standard equipment and simulation lab supplies.

Leave Blank:
Implementation Timeline: 2019 - 2020
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Identify related course/program outcomes: PT 215 Pharmacy Outpatient Practice and PT 217 Pharmacy In-Patient Operations:

- Receive, process, and prepare prescriptions/medication orders for completeness, accuracy, and authenticity to ensure safety. (ASHP 3.2)
- Prepare patient-specific and non-patient specific medications for distribution. (ASHP 3.4, 3.5)
- Assist pharmacists in preparing, storing, and distributing medication products including those requiring special handling and documentation. (ASHP 3.6)
- Maintain pharmacy facilities and equipment. (ASHP 3.8)
- Apply quality assurance practices to pharmaceuticals, durable and non-durable medical equipment, devices, and supplies. (ASHP 3.11)
- Use current technology to ensure the safety and accuracy of medication dispensing. (ASHP 3.13)
- Explain accepted procedures in inventory control of medications, equipment, and devices. (ASHP 3.19)
- Prepare, store, and deliver medication products requiring special handling and documentation. (ASHP 3.22)

Person(s) Responsible (Name and Position): Mitchell Andrews

Rationale (With supporting data): Maintaining an ASHP accredited training program requires budgetary support for meeting the program and course outcomes. See attached files: ASHP equipment list, ASHP annual accreditation fee schedule, Lab supplies master list, Pharmacy references, Professional association memberships required by ASHP Standards

Priority: High
Safety Issue: No
External Mandate: Yes
Safety/Mandate Explanation: ASHP Standards, model curriculum and guidance documents are attached

Action: 2019-2020; Improve student success through faculty development

Improve student success by providing faculty development in areas of current pharmacy practice and skills, pharmacy technician education, and classroom effectiveness. ASHP $2500, PTEC $2500 (VTEA)

Leave Blank:
Implementation Timeline: 2019 - 2020
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Identify related course/program outcomes: The goal of the Pharm Tech Certificate of Achievement Program is to increase student success to 80%. This goal requires ongoing faculty development to ensure that current and future faculty members make the transition from pharmacy practice to academia.

Advisory Board Survey/Minutes support faculty development activities to support a successful pharmacy technician program.

Person(s) Responsible (Name and Position): Mitchell Andrews

Rationale (With supporting data): Pharmacy technician faculty and Advisory Board members directly relate faculty development to the success of the pharmacy technician program. This is documented in Advisory Board minutes (attached), previous program review, and goal-settings sections of faculty elevations. faculty utilized on campus and online resources for improving academic transition skills. ASHP annual conference supports ongoing current clinical skills. PTEC annual conference supports ongoing pharmacy technician education meets industry expectations.

Priority: High
Safety Issue: No
External Mandate: Yes
Safety/Mandate Explanation: ASHP standards require ongoing faculty development

Link Actions to District Objectives
Program Review - Pharmacy Technician

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<tbody>
<tr>
<td><strong>District Objective 2.1</strong> - Increase the percentage of students who earn an associate degree or certificate (CTE and Non-CTE) by 5 percentage points over three years</td>
</tr>
<tr>
<td><strong>District Objective 4.3</strong> - College of the Sequoias Board of Trustees, administration, faculty, and staff will engage in best practices and staff development to sustain effective operational systems for institutional assessment and continuous improvement.</td>
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**Action: 2019-2020; Improve student pass rate on PTCB national certification exam.**

Improve student pass rate on the PTCB national certification exam by providing a certification review course and/or PTCB practice exams.

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<tr>
<td>Identify related course/program outcomes: Career Opportunities</td>
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Upon successful completion of this certificate, students will be eligible to apply for a pharmacy technician license from the California State Board of Pharmacy and will be prepared for employment as an entry-level pharmacy technician in various pharmacy practice settings. Industry partner requirements for certified technicians to fill posted positions are increasing. Advisory Board recommends students are prepared for and take the national certification exam.

**Person(s) Responsible (Name and Position):** Mitchell Andrews

**Rationale (With supporting data):** National standards for pharmacy technician education are reflected by passing scores on the PTCB certification exam.

**Priority:** High

**Safety Issue:** No

**External Mandate:** Yes

**Safety/Mandate Explanation:** ASHP Accreditation standards require the following program assessments

14.2 Program assessments include, but are not limited to:

- (a) program completion;
- (b) performance on national certification examinations or performance on a psychometrically valid evaluation;
- (c) program satisfaction, including student, graduate, and employer satisfaction;
- (d) job placement; and
- (e) assessment data used in the continuous quality improvement process is actively maintained.

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