Chaffey College Program Review
Three Year Review 2011

PROGRAM OVERVIEW

Program Title: Pharmacy Technician

Program Code: 1221 - PHARMACY TECHNICIAN

Review Type: Instructional

Does this review contain any career technical education (occupational) programs?
Yes

External Regulations:
No

Chaffey College Mission Statement
Chaffey College improves lives within the diverse communities it serves through equal access to quality occupational, transfer, general education, and foundation programs in a learning-centered environment where student success is highly valued, supported, and assessed.

Please describe how your program supports the college's mission and discuss how your program evaluates its effectiveness in meeting the college mission:
The mission of the Pharmacy Technician Program is to provide an education for all individuals within our diverse communities so they may acquire a high level of skill and professionalism needed to become an effective pharmacy technician. The Pharmacy Technician Program's effectiveness is evaluated by student registration with the California Board of Pharmacy and passing the PTCB (Pharmacy Technician Certification Board) National Exam.

Review Team Response
Well done.

PROGRAM DATA

Enrollment
## Enrollment by Day, Evening, Online, Arranged (PHARMT)

### Total Census Enrollment

<table>
<thead>
<tr>
<th>Measure</th>
<th>2008-09 to 2009-10</th>
<th>2009-10 to 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Census Enrollment</td>
<td>12.27%</td>
<td>6.48%</td>
</tr>
<tr>
<td>Day</td>
<td>40.93%</td>
<td>2.53%</td>
</tr>
<tr>
<td>Evening</td>
<td>-42.22%</td>
<td>5.13%</td>
</tr>
<tr>
<td>Online</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Enrollments

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>440</td>
<td>494</td>
<td>526</td>
</tr>
<tr>
<td>Day</td>
<td>281</td>
<td>396</td>
<td>406</td>
</tr>
<tr>
<td>Evening</td>
<td>135</td>
<td>78</td>
<td>82</td>
</tr>
<tr>
<td>Online</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arranged</td>
<td>24</td>
<td>20</td>
<td>38</td>
</tr>
</tbody>
</table>
Given the data, what changes can be identified in enrollment patterns? Identify any important trends and explain them.

The PT offerings have become level and remained consistent. The evening offerings have been reduced due to program capacity. Only the Introductory class is offered in the evening in the past two-years. The demographic spread is consistent with the diverse college community. An identified weakness maybe reflected in the male to female gender gap. No hard data is available to reflect why the gender or ethnicity gaps exists in health professions. The PT program will continue to show gender diversity in all of it's marketing materials. Since 2007 the male population (per OLAP cubes) has gone from 23 students to 45). This demonstrates a trending success rate to engage male students in the program. According the OLAP cubes, the College has a 14% African-American population and the PT program has a 12% African-American population. This is within the limits of normalacy. However, as noted above, the PT program continues to use diverse methodologies to recruit students of all diverse populations.

Retention
### Retention Rate by Day, Evening, Online, Arranged (PHARMT)

<table>
<thead>
<tr>
<th>Measure</th>
<th>2008-09 to 2009-10</th>
<th>2009-10 to 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Census Retention</td>
<td>1.21%</td>
<td>-1.13%</td>
</tr>
<tr>
<td>Day</td>
<td>2.32%</td>
<td>-1.19%</td>
</tr>
<tr>
<td>Evening</td>
<td>-3.99%</td>
<td>-3.55%</td>
</tr>
<tr>
<td>Online</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Arranged</td>
<td>95.83</td>
<td>95.00</td>
</tr>
</tbody>
</table>

### Table:

<table>
<thead>
<tr>
<th></th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>95.00</td>
<td>96.15</td>
<td>95.06</td>
</tr>
<tr>
<td>Day</td>
<td>95.02</td>
<td>97.22</td>
<td>96.06</td>
</tr>
<tr>
<td>Evening</td>
<td>94.81</td>
<td>91.03</td>
<td>87.8</td>
</tr>
<tr>
<td>Online</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Arranged</td>
<td>95.83</td>
<td>95.00</td>
<td>100</td>
</tr>
</tbody>
</table>
Given the data, what changes can be identified in retention patterns? Identify any important trends and explain them.
The PT program demonstrates exceptional retention rates. Two concerns are noted: one the evening classes are actually improving, but still higher. This is an introductory, exploratory class. Some students find this is not the profession for them. As for the day-time drop, the program faculty have a new policy of informing students that they have dropped below passing rate and offer to remediate. Many choose to drop and return at a better time for the student to succeed.

Success
Given the data, what changes can be identified in student success patterns? Identify any important trends and explain them.

The PT program demonstrates exceptional retention rates.

**Review Team Response**

Data and trends are interpreted properly. Implications for the program are included. The lower success rate for African Americans should have been addressed. Response: "No hard data is available to reflect why the gender or ethnicity gaps exists in health professions."

**DEGREE/CERTIFICATE DATA**

<table>
<thead>
<tr>
<th>Pharmacy Technician</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Term</strong></td>
</tr>
<tr>
<td>07/08</td>
</tr>
<tr>
<td>08/09</td>
</tr>
<tr>
<td>09/10</td>
</tr>
</tbody>
</table>
Given the data, is the number of majors and certificates what you would expect? Please comment. Has the number of majors and certificates increased or decreased over time? Why?
The increase in the degrees is consistent with the reorganization of the curriculum to allow increase in enrollment. The program leadership has grown stronger and become aware that degrees and certificates were not awarded automatically upon completion.

<table>
<thead>
<tr>
<th>Term</th>
<th>Degrees</th>
<th>Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/08</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>08/09</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>09/10</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

Given the data, is the number of majors and certificates what you would expect? Please comment. Has the number of majors and certificates increased or decreased over time? Why?
As degrees have increased, certificates have decreased. Many students were not aware that they could apply for both. Emphasis has been made for the degrees. Graduates are not required to show certificates or degrees to take their board examinations in California (currently.) Students are now aware of the opportunity to apply for both degree and certificate.

**Review Team Response**
No data provided. Response: Data is shown on writer’s side within the edit tool.

**STUDENT LEARNING OUTCOMES**
Explain the importance of the pharmacy's compliance with federal, state, and local laws; regulations and professional standards as it applies to the pharmacy training program in the specified st...

Identify the use and side effects of prescriptions medications, OTC products, and alternative therapies commonly used to treat diseases affecting the body systems including, but not limited to ca...

By successfully completing the Pharmacy Technician program, students will be able to demonstrate appropriate techniques and use of equipment and devices in compounding sterile products, and will be a...

Pharmacy technician students will accurately use the metric, household, apothecary, and avoirdupois systems, converting within those systems, to calculate dosages and volumes specified by the prescrip...
Accurately prepare medications for distribution in accordance with state laws and regulations including, but not limited to, creating a patient profile (manual or electronic), follow an electroni...

Pharmacy Technician students will demonstrate appropriate techniques and use of equipment and devices in compounding sterile products, and will be able to explain the uses of laminar air flow hoo...

Explain the importance of the pharmacy's compliance with federal, state, and local laws; regulations and professional standards as it applies to the pharmacy training program in the specified st...

Identify the use and side effects of prescriptions medications, OTC products, and alternative therapies commonly used to treat diseases affecting the body systems including, but not limited to ca...

By successfully completing the Pharmacy Technician program, students will be able to demonstrate appropriate techniques and use of equipment and devices in compounding sterile products, and will be a...

Pharmacy technician students will accurately use the metric, household, apothecary, and avoirdupois systems, converting within those systems, to calculate dosages and volumes specified by the prescri...

Accurately prepare medications for distribution in accordance with state laws and regulations including, but not limited to, creating a patient profile (manual or electronic), follow an electroni...

Pharmacy Technician students will demonstrate appropriate techniques and use of equipment and devices in compounding sterile products, and will be able to explain the uses of laminar air flow hoo...

Students completing the Pharmacy Technician will be able to demonstrate skills that foster capacities of analysis, critical reflection, problem solving, communication, career development, and global and community awareness.

1. Explain the importance of the pharmacy's compliance with federal, state, and local laws; regulations and professional standards as it applies to the pharmacy training program in the specified st...

Students completing the Pharmacy Technician will be able to demonstrate skills that foster capacities of analysis, critical reflection, problem solving, communication, career development, and global and community awareness.

**Discuss how the number, type, depth, and breadth of the courses support program SLO's.**

The progression of the courses cover the major areas of job responsibility as well as the foundation of knowledge and skills required for a successful pharmacy technician which supports the program SLO's. These have been
developed using the ASHP (American Society of Health System Pharmacists) model curriculum and goals.

Discuss how courses in the program articulate with or complement each other. The courses progress as introductory, learning and understanding, developing and practicing pharmacy skills, and finally demonstrating pharmacy practice and operations. Each course complements the other by detailing the introductory concepts in each class. The student demonstrates these skills and knowledge in pharmacy operations and in the culmination of clinical externship.

Discuss how courses in the program interact with other programs on campus (for example: cross-listing, overlapping content, or shared resources). PHARMT 415 has a verified pre-requisite of MATH 510. All other courses did NOT show significance to needing pre-requisites. The program continues to need a typing speed of 30 wpm that can be certified the BUSOT department certificate. No course work is required, by the PT program to reach the wpm goal. This does not eliminate the BUSOT departments possible course work in having the student achieve the requirement.

How and when has your department assessed Program SLO's' and how have you responded to the results? The program and SLO revision was performed in Fall 2010

What program or course changes have been made based on the result of the assessed outcome? Submission of assessments and data to IR are pending

Review Team Response
SLOs have not been reviewed in two years?

Discuss how your services help maintain a high level of student satisfaction.

Discuss how you evaluate your effectiveness in meeting students' needs.

How and when has your service reviewed or revised SLO?s and/or AUO?s.

How has your program utilized SLO/AUO assessment results for program improvement?

Review Team Response

CURRICULUM UPDATE

<table>
<thead>
<tr>
<th>Courses</th>
<th>Last Modified</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHARMT 400 Introduction to Pharmacy Technology - Active</td>
<td>02/22/2006</td>
</tr>
<tr>
<td>PHARMT 401 Pharmacology of the Body Systems I - Active</td>
<td>02/22/2006</td>
</tr>
<tr>
<td>PHARMT 402 Pharmacology of the Body Systems II - Active</td>
<td>02/22/2006</td>
</tr>
<tr>
<td>PHARMT 415 PharmaceuticalCalculations - Active</td>
<td>03/01/2006</td>
</tr>
<tr>
<td>PHARMT 420 Community Pharmacy Operations - Active</td>
<td>02/08/2006</td>
</tr>
</tbody>
</table>
Courses should be updated every six years; if course updates are due, please describe your plan and timeline for updating courses:
Program is involved is updating Course of Records, Program of Study, and Student Learning Outcomes. The need to modify some classes to improve the flow of the curriculum as well as the need for pre-requisites and co-requisites based on student success rates. Research was done by Institutional Research on the requisites changes. Updated curriculum project will be completed by May 2012.

What steps has your program taken to proactively respond to changing and emerging student and community needs?
Advisory Commettees
Needs Assessment
Develop New Courses/Programs
Other

Briefly explain:
The PT program relies strongly on Advisory Committee for trend and educational analysis. We have focused on building the Advisory committee over the past 3-years to be more reflective of the community needs and pharmacy technician (rather than pharmacist.) Within the growing concerns of the community, a new course has been identified in regards to ‘Over the Counter' medications and implications to public health and awareness.

Review Team Response
No time line included.

ADVISORY COMMITTEE INFORMATION

An occupational program is required to have an active advisory board. Describe the advisory board membership, how often it meets, its role and involvement with the program, and how the program responds to advisory board recommendations (give examples).
The PT Advisory meets twice per year. The board consists of Pharmacist, Pharmacy Technicians, and students. We have been growing the size and makeup of the board to include more technicians. The board provides valuable feedback on how we are doing in the program as well as what we need to add or subtract from the program. An example is the last meeting, the board approved the change of the pre-requisites and an additional class in 'Over the Counter' products to be added to the program. The PT program is not accredited by any external entity at this time.

Review Team Response
Good discussion of how the advisory committee relates to the program. Good example.

Review Team Response

NON-INSTRUCTIONAL PROGRAM INFORMATION

How does your program improve, expand, or support student learning? How do you know?

Describe staff functions and services (these can include diversity, specialties, staff preparation and training, professional activities and committee participation, accomplishments, grants, new programs etc.) How does your program evaluate its effectiveness?

Review Team Response

STUDENT SUPPORT - ACCESS

How do the services you provide to students facilitate access to learning? (e.g. - admissions applications, payment processing, pre-requisite clearances, assessment testing, adaptive technology, program applications, healthcare, student activities, and other specialized services.)

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Description of Service</th>
<th>How many students received this service?</th>
<th>Measured with?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>08-09 09-10 10-11</td>
<td></td>
</tr>
</tbody>
</table>

Additional information:

Review Team Response

STUDENT SUPPORT - SUPPORT

How do the services you provide to students support student learning? (e.g. 'counseling, orientations, workshops, financial assistance (scholarships, grants, etc'), career assessments, health education, service learning, advisory committees, and other specialized services.)

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>What knowledge, skills, and/or abilities are learned?</th>
<th>How many students received this service?</th>
<th>Measured with?</th>
</tr>
</thead>
</table>
Additional information:

Review Team Response

STUDENT SUPPORT - OTHER

How do the services you provide to students promote transfer, completion, specialized services, and/or future success? (e.g. graduation ceremony, CSU/IGETC certifications, university transfer, securing employment, transcript requests, enrollment verification, conferring of degrees/certificates, scanning/imaging documents, phone calls received, face-to-face contacts, refunds granted, and other specialized services.)

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>How does this contribute to student success?</th>
<th>How many students received this service?</th>
<th>Measured with?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>08-09</td>
<td>09-10</td>
</tr>
</tbody>
</table>

Additional information:

Review Team Response

VISIONARY IMPROVEMENT PLAN (VIP)

Please identify 1-3 program improvement goals for the next three years. Goals should state 'what' you plan to achieve and the rationale 'why' for doing so. 'How' you achieve your goals will be entered under Steps to Success. Keep in mind that your VIP should be SMART:

- Specific
- Measurable
- Action-oriented
- Realistic
- Time-bound

All plans should improve or expand student learning.

Year Three Goal:
1. Continue to build Advisory Committee membership and adjunct faculty pool to expand community relationships with local pharmacists and technicians. 2. Continue to increase clinical sites for externships as required for program growth. 3. Add/update classe(s) recommended by the Advisory Committee to improve student knowledge in subject area(s).

To which planning direction does this goal apply?
Year 1 Steps to Success (activities) and VIP Assessment:
Update current courses and add the OTC class recommended by advisory committee in curricunet. Contact local pharmacies with introductions to the Chaffey College Pharmacy Technician Program and Faculty.
1. By the end of the spring semester, present updated courses and draft of OTC course to the Program Coordinator.
2. Ask for referrals from Advisory Committee members for additional membership and adjunct faculty candidates. Contact local pharmacies and schedule appointments.

Year 2 Steps to Success (activities) and VIP Assessment:
Continue developing relationships with local pharmacies through appointments and site visits. Invite pharmacists and adjunct faculty candidates to the Advisory Committee meetings.
1. By the end of the spring semester, have at least two adjunct faculty candidates in the pool. 2. Have at least 2 additional Advisory Committee members. 3. Have at least 2 additional clinical site preceptors contracted.

Review Team Response
The goal is unclear and not fully developed.
The goals stated are really "maintenance" items and do not address program improvement.

PROFESSIONAL DEVELOPMENT ACTIVITIES THAT SUPPORT STUDENT LEARNING OR IMPROVE YOUR PROGRAM
List Recent departmental professional development activities connected to student learning.

<table>
<thead>
<tr>
<th>Recent activities</th>
<th>Recent workshops/courses taken</th>
<th>Recent conferences/training</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning to Learn</td>
<td>QS/1 Processing Prescriptions</td>
<td>CSHP (California Society of Health System Pharmacists) October 2011</td>
<td></td>
</tr>
</tbody>
</table>

How are student learning outcomes affected by these professional activities? What steps are recommended for improvement?
Learning to Learn integrates student learning strategies for success in the classroom. Students will learn on the latest pharmacy software program to achieve success in the classroom and pharmacy practice. CSHP provides the latest information on treatments, state regulations, competencies, and teaching models for student success in pharmacy practice.

Discuss departmental engagement on campus in connection to student learning.

<table>
<thead>
<tr>
<th>Governance committees</th>
<th>Other college-related committees</th>
<th>Other campus participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSR Committee; Multimedia Committee; Pharmacy Technician Advisory Committee</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How does your program benefit from your campus engagement?
1. Improve PSR knowledge and understanding
2. Follow media objectives and selection to expand student learning from media use
3. Advisory committee consists of area pharmacy retail/hospital specialists that advises on curriculum, equipment, and training for student success in pharmacy practice

<table>
<thead>
<tr>
<th>Teaching/Years of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy Technician</td>
</tr>
<tr>
<td>0-5 years</td>
</tr>
<tr>
<td>6-10 years</td>
</tr>
<tr>
<td>11-15 years</td>
</tr>
<tr>
<td>16-20 years</td>
</tr>
<tr>
<td>21+ years</td>
</tr>
</tbody>
</table>

Given the data how has your program been impacted?
There is one full time faculty with 6 years of service. Some of our students have been hired out of the externship. Some clinical sites request only Chaffey pharmacy technician trainees because of their skills and competence. Students achieved over a 95% pass rate on the Pharmacy Technician Certification Exam.

Does your program anticipate retirements within the next 3 years?
No

Review Team Response
Professional Development activities seem reasonable for a one-person department.

PROJECTED NEEDS
Is any part of the program funded by sources other than the instructional budget (such as grants, partnerships, or other means)? If yes, please identify the source, amount, and length of funding.
The PT program has received small grants from the ASCC for purchasing media (not software.) The department has received Perkin’s Grants in the amount of $30,000 over the past 3-years that has kept the equipment and technology current.

After reviewing and analyzing the data and assessment results in this report, please describe and provide rationale for any projected resource needs required to accomplish your Visionary Improvement Plan using the boxes below. Your requests should be based on student need.

FT Faculty:
Year 1: 0

Hiring Criteria:
Year 2: 0
Hiring Criteria:

Year 3:
0

Hiring Criteria:

Institutional Level Considerations
Student need for courses or programs for transfer or vocational certificate
Supports diversity of college offerings
New direction of the college (e.g., Tech Prep/Career Pathways/CTE, Middle High School College)

Department Concerns
Adjunct faculty are difficult to find (quality and qualified, high turnover, specific skill sets, external agency licensure requirements)
Supports diversity of program and course offerings

STAFF

Year 1
0

Year 2
0

Year 3
0

EQUIPMENT

Year 1
0

Year 2
0

Year 3
0

TECHNOLOGY

Year 1
0

Year 2
0
SOFTWARE

Year 1
0

Year 2
0

Year 3
0

OTHER

Year 1
Augmentation of $650 for licensing for QS1 Pharmacy Software Program.

Year 2
0

Year 3
0

Review Team Response
Faculty hiring criteria are addressed but no faculty requested. The need for software is not tied to the VIP.

Review Team Response
The document seems unclear and does not contain enough information to be useful for planning, supporting and improving student achievement and SLO’s. Revisions required.
Your review team would be glad to help you revise the areas that are unclear.