

# STUDENT OUTCOMES COMMITTEE OF THE BOARD OF TRUSTEES

Thursday, February 3, 2022

1:00 p.m.

via Zoom

## **AGENDA**

(1) Public Session

(a) Approval of the Minutes of January 6, 2022 (A)

(b) Academic Program Review (A)

Chemistry Program

- What changes in the Programs have occurred as a result of assessment? Has continuous assessment taken place?
- What actions have been taken to address recommendations made in the last Program Reviews?
- To what extent does the Committee agree with the Program Review findings and recommendations?
- What is the Committee's action recommendation to the full Board?

Guests: Dr. Vishal Shah, Dean, Math, Science and Health Careers  
Ed Miskiel, Department Head of Chemistry

(c) Pre-College STEM Initiatives (D)

Guests: Stephanie Austin-Johnson, STEM Pre-College Program  
Megan Barbano-Maxwell, Director, K-16 Partnerships

(d) Review of Student Outcomes Committee Agenda Calendar (D)

(e) New Business

### **Attachments:**

Minutes of January 6, 2022

Academic Program Review: Chemistry

SOC Agenda Calendar

**STUDENT OUTCOMES COMMITTEE OF THE  
BOARD OF TRUSTEES**

**MINUTES**

**Thursday, January 6, 2022**

**1:00 p.m.**

**Zoom**

**Presiding:** Ms. Fulmore-Townsend

**Committee**

**Members:** Ms. Ireland, Ms. McPherson, Ms. Posoff

**Board**

**Participants:** Mr. Soileau

**College**

**Members:** Ms. de Fries, Dr. General, Dr. Hirsch, Ms. Liautaud-Watkins, Dr. Roberts, Dr. Rooney, Dr. Thomas

**Cabinet**

**Members:** Ms. Witherspoon, Dr. Zanjani

**Guests:** Ms. Gordon, Dr. Lewis, Dr. Nagaswami, Dr. Scordia, Dr. Shah, Dr. Sinnott

**(1) Executive Session**

There were no agenda items for the Executive Session.

**(2) Public Session**

**(a) Approval of the Minutes of November 4, 2021**

The minutes were approved unanimously.

**(b) Academic Program Review: Medical Laboratory Technician (A.A.S. Degree)**

Dr. Shah, dean of the Math, Science, and Health Care division, noted that the Medical Laboratory Technician (MLT) program is one of the flagship programs in the College's Allied Health department. The program has 100% pass rate on the Medical Laboratory Technician ASCP Board of Certification Exam and 100% job placement. Dr. Sinnott, from the Office of Assessment and Evaluation, explained that in September 2021, the program completed its periodic review for its national accrediting agency, the National Accrediting Agency for Clinical Laboratory Sciences; the program was awarded a 10-year accreditation. Most students are part-time and career-age. The program has strong retention and graduation rates and a consistent 100% job placement rate. The program plans to introduce more molecular

methods into the curriculum to continue to innovate. There is a national and local shortage of medical laboratory technicians, in part because of increased testing with COVID.

Committee members asked about the program's demographics. Dr. Lewis, the Department Head for Allied Health programs, explained that having a higher percentage of Asian students and female students is on trend for the industry and for related allied health fields; the advisory board is comprised of the same demographics. There may be a lower percentage of African-American females because the field is not well-known, and students in high schools are not aware of it. However, because of COVID, the program has had opportunities to interact more with younger students, which should raise awareness. Dr. Thomas added that because of a recent grant, the College has been hosting more STEM events for middle and high school students; these events also address the health care field.

Dr. Lewis discussed recruiting students internally from the Health Care Studies program. There are monthly health care admissions events, at which students can meet with faculty, talk about the admissions process, careers, job prospects, salaries, etc. Recently, students were invited to see a day-in-the-life for all the Allied Health programs. The MLT program is always at capacity. Additionally, students are all employed before graduation. Students must complete clinical experiences; most of those clinical sites go on to hire them. This is common in health care in general. While having enough clinical sites can be challenging, the program director keeps a list that meets 150% of clinical sites needed, in case of limitations. The program has developed new affiliations in the City, and the program director is persistent in contacting new offices acquired by area hospitals.

In regards to the high retention and completion rates, Dr. Lewis noted the outstanding faculty in the program. The program is consistent with assessing student learning, closing the loop, and making changes based on evidence. Because of the low number of students allowed by capacity, faculty are able to build relationships with students, which may help retention.

**Action: The Student Outcomes Committee unanimously recommended that the Board of Trustees accept the program review for the Medical Laboratory Technician program with approval for five years.**

**(c) Cultivating a Culture of Excellence in Teaching & Learning at CCP**

Dr. Scordia, Assistant Professor of English and Professional Learning Coordinator (Title III), began the presentation explaining that investing in faculty professional learning is an essential part of ensuring students are learning. It also relates directly to *Impact 2025* and the Student Experience pillar, to Guided Pathways efforts, and to Middle States accreditation. A commitment to teaching and learning is one of the five institutional priorities the College developed for the Middle States self-study, and Standard III includes criteria devoted to faculty professional learning. With the

Faculty Center for Teaching and Learning (FCTL), the College has long been in compliance with these criteria. Because of the Title III grant awarded in 2020, the College has been able to build on the work of the FCTL and offer a more sustained professional learning program which is being regularly assessed.

Dr. Nagaswami, Professor in the Department of English and Facilitator of the FCTL, discussed how the FCTL has a mission statement and has developed a strategic plan with five goals, which is based on *Impact 2025* and best practices in the field. Each goal has action items. They have been assessing progress on faculty professional learning and will soon be posting the results of those assessments. Despite the pandemic, they have been able to make progress on all the goals, including hosting two joint conferences with area community colleges.

Dr. Scordia explained how the Title III grant encompasses faculty professional learning in an institutional goal (Increase retention and completion rates by having student supports more effectively integrated with academics and by *promoting the capacity for teaching and learning among faculty*) and has objectives related to faculty professional development, with goals each year for the number of full- and part-time faculty taking part in professional learning. The grant also seeks to increase effective use of Starfish and Canvas. The College has built a Title III Faculty Professional Learning Core Team, comprised of faculty representing a range of departments and including the Associate Director of the grant, Sharmon Bryant.

As one of its first activities, the Core Team held a Summer Institute last year. They consulted with the Director of Teaching & Learning at Achieving the Dream, who provided opening and closing remarks, and utilized ATD's new Teaching & Learning Toolkit in planning the event and activities. They identified four high-impact practices (HIPs) for faculty to learn about and then implement in their own course in the following fall semester. Over 50 faculty from across the academic divisions took part, including both full- and part-time faculty. Building on the work from the Summer Institute, the FCTL implemented learning communities devoted to the HIPs to support faculty while they added HIPs to their courses. They are working with Institutional Research on data analysis and will have data on the first semester outcomes soon.

Dr. Nagaswami discussed the array of professional learning opportunities that were provided in the fall semester. These included a mini-conference on HIPs for faculty who could not attend the Summer Institute. They also had a session on supporting first-generation students that led to a mini-conference on the topic (which took place on National Gen 1 Day and included a panel of students); this will continue to be a focus in the spring semester. They recognize that the College's students have gone through various forms of trauma, including those COVID-related. As preview for upcoming spring activities, they held a mini-conference in November on trauma-informed pedagogy. They also created the Virtual Learning Exchange Series, with weekly meetings for faculty to discuss with each other their practices and share their tools. There were four rotating topics: Starfish, Canvas, data-informed teaching, and

inclusive teaching practices. Across all the various sessions in the summer and throughout the fall semester, a total of 54 part-time and 108 full-time faculty took part. Additional FCTL programming includes the Assessment Academy, the FCTL Fellows and Communities of Practice, New Faculty Orientation, and an upcoming joint conference with area community colleges.

Dr. Scordia provided an overview of topics for the spring semester. She also explained that all the professional learning programs must be developed through an equity lens. Moreover, everything FCTL and the Core Team are doing must be assessed, not just for Middle States but also for continuous improvements. They plan to analyze data on retention and completion to look at the faculty implementation of HIPs, including a student survey. They conducted a faculty survey in Fall 2021; 69% of respondents said the most important reason to take part in faculty professional learning opportunities was to improve student learning. She stressed that the College's commitment to supporting these endeavors is critical to students and student success. Dr. Hirsch stated that the College will receive \$2.25 million over the five years of the Title III grant, and a major portion of those funds is to support faculty professional learning.

Annual updates on faculty professional learning will be added to the Committee calendar.

**(d) New Business**

There was no new business.

**Next Meeting**

The next meeting of the Student Outcomes Committee of the Board is scheduled for February 3rd at 1:00 p.m. via Zoom.

**Attachments:**

Minutes of November 4, 2021

Academic Program Review: Medical Laboratory Technician Program

Cultivating a Culture of Excellence in Teaching & Learning at CCP presentation

# Community College *of* Philadelphia

## Academic Program Review: Chemistry (CHEM)

Authors: Ed Miskiel, Molly O'Connor, Linda Gerz, Kathleen Shaginaw, Tammy Wooten,  
Dr. Dawn Sinnott

Spr 2022

# 1. Executive Summary

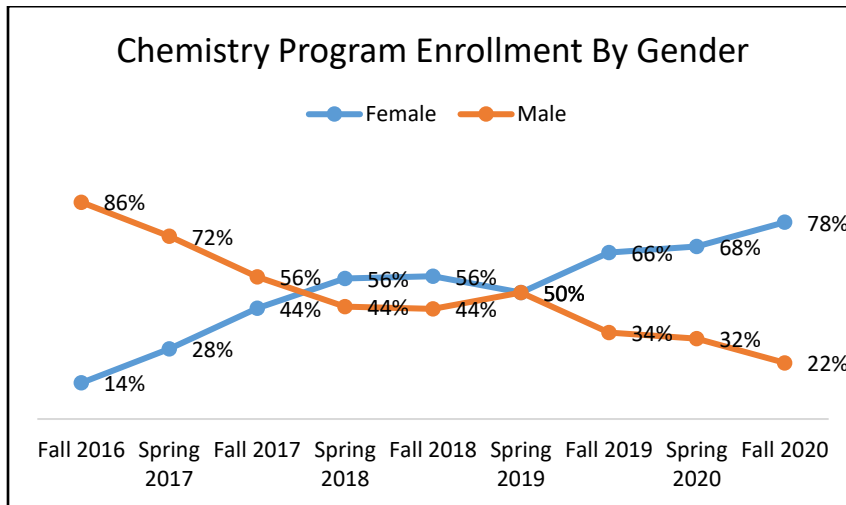
## A. Key Findings

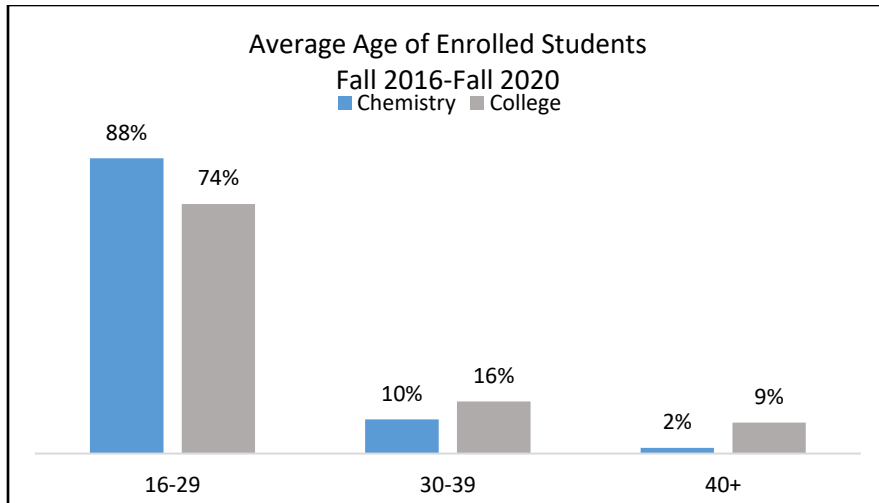
### Enrollment and Demographics

1. Fall 2016 was the Chemistry degree program's first semester. Enrollments grew progressively to a high of 44 enrolled students in spring 2020.
2. On average, the Chemistry Program enrolled a higher proportion of full-time students (49.5%) than the College overall (28.2%).
3. In fall 2016, the initial Chemistry Program enrollments were 14% female and 86% male; over the following nine semesters, enrollment changed to 78% female and 22% male.
4. On Average, Chemistry students were more likely to be students between 16 and 29 years of age.

College-Wide	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Average
Headcount	18,125	17,019	17,296	16,503	16,671	15,544	15,996	14,789	13,673	15,782
Full-time	26.9%	26.0%	29.4%	26.6%	29.5%	26.9%	29.8%	27.8%	31.3%	28.2%

Chemistry	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Average
Headcount	7	18	32	36	39	42	41	44	36	33
Full-Time	85.7%	55.6%	53.1%	41.7%	41.0%	54.8%	48.8%	56.8%	38.9%	49.5%



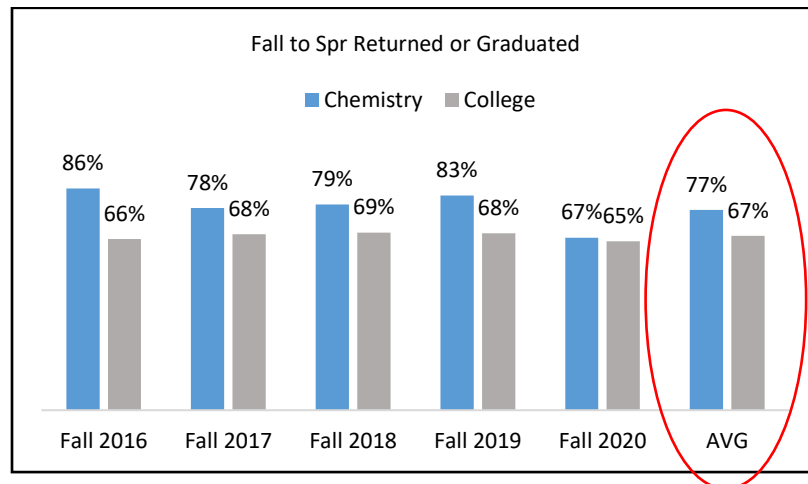


**Retention**

- 5. Fall to Spring Retention between fall 2016 and fall 2020: At 77%, the Average proportion of Chemistry Program students who returned or graduated from fall to spring Averaged 10 points high than the College's Average (67%)

**Fall to Spring Retention**

Chemistry	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Chemistry Average	College Average
Headcount	7	32	39	41	36	31	15,909
Returned to Same Program	85.7%	78.1%	79.5%	78.0%	63.9%	75.5%	64.4%
Returned to Different Program	0.0%	6.3%	0.0%	2.4%	2.8%	2.6%	4.8%
Graduated	0.0%	0.0%	0.0%	4.9%	2.8%	1.9%	2.9%
Did Not Persist	14.3%	15.6%	20.5%	14.6%	30.6%	20.0%	27.8%

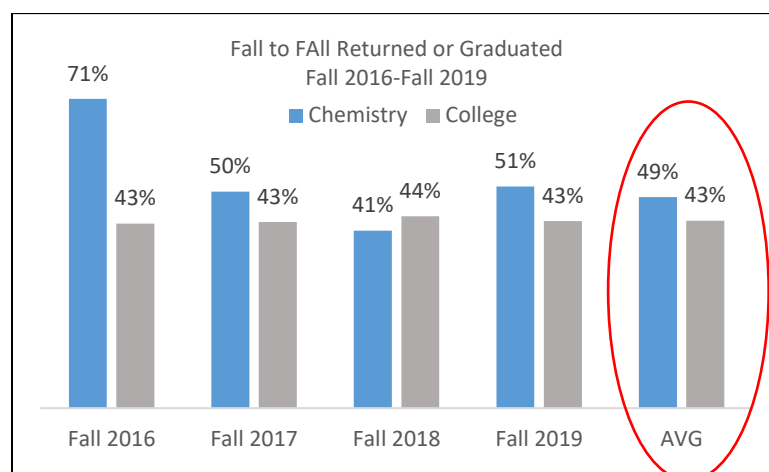




6. Fall to Fall Retention between fall 2016 and fall 2019: At 49%, the Average proportion of Chemistry Program students who returned or graduated from fall to fall Averaged 6 points higher than the College's Average (43%)

#### Fall to Fall Retention

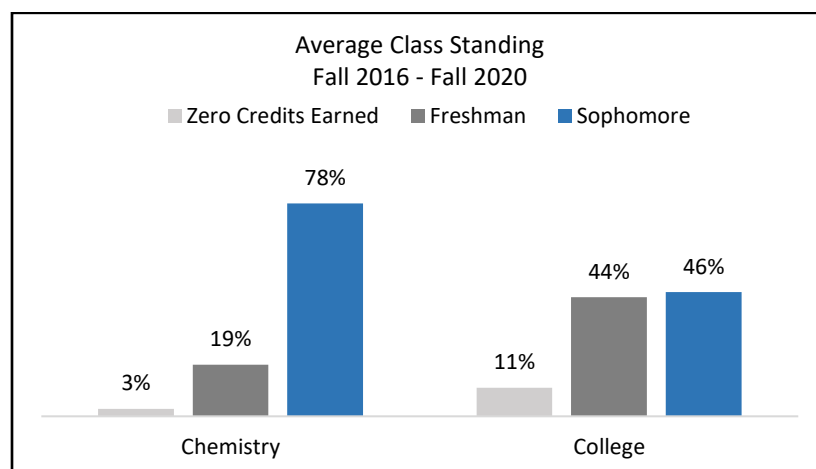
Chemistry	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Chemistry Average	College Average
Headcount	7	32	39	41	30	17,412
Returned to Same Program	71.4%	46.9%	33.3%	34.1%	39.5%	33.6%
Returned to Different Program	0.0%	0.0%	7.7%	7.3%	5.0%	7.8%
Graduated	0.0%	3.1%	7.7%	17.1%	9.2%	9.7%
Did Not Persist	28.6%	50.0%	51.3%	41.5%	46.2%	49.0%



#### Academic Success and Graduation

7. Class standing is a measure of students' earned credits. Freshman reflects the group of students who have earned between 1 – 24 credits; sophomore reflects the group of students who have earned more than twenty-four credits; zero credits reflect the group of students who have either not attempted or not passed any college-level coursework at the start of a given term. On average, between fall 2016 and fall 2020, 78% of Chemistry Program students have earned more than 24 college-level credits indicating a level of strong academic progress.

8. Over the period studied, the Chemistry program students averaged slightly higher in good academic standing (95.3%) than the College's overall (92.1%). The percentage of students dropped or on probation was somewhat lower, Chemistry Program 4.7% and College-wide 7.6%



Academic Standing	Chemistry Program	College-Wide
Good Standing	95.3%	92.1%
Dropped or Placed on Probation	4.7%	7.6%

## Transfer

9. Among students who entered the College between fall 2015 and fall 2019, 89 departed. More than half of those students (count of 51) departed as graduates or with 45 or more earned credit hours. Of these former students, 28 of the 51 (55%) transferred.

Departing Students who entered the College between 2015 and 2019					
Exit Status	Departed and Transferred		Departed, Did Not Transfer		Total Count of Departing Students
	Count	Percent	Count	Percent	
Graduate	15	65%	8	35%	23
Earned 45 or more credits	13	46%	15	54%	28
Earned 23 to 44 credits	6	35%	11	65%	17
Earned 12 to 22 credits	6	86%	1	14%	7
Earned less than 12 credits	3	21%	11	79%	14
Grand Total	43	48%	46	52%	89

## Assessment

10. The consistency and quality of CLO (course learning outcome) assessments for chemistry courses meet all requirements. Documentation of assessments conducted since the spring of 2016 has been submitted to the Office of Assessment and Evaluation. Direct assessment measures are being used, including scores from embedded final exam questions and grades on lab reports. The benchmark is currently set at 75% for all embedded final exam questions.

CLO assessment outcomes roll up to the program level and provide the data for PLO (Program Learning Outcomes) analyses. The program has four PLOs and calls for formal analysis biannually with the first reporting cycle 2017-2018; data was collected, analyses completed, and benchmarks achieved. The next biannual cycle, 2019-2020, was interrupted due to COVID, and the department is getting back on track.

Assessment details are discussed during department meetings and through email correspondences. Assessment data has been collected and kept on file by the course coordinator for all semesters between 2016 and 2021 except for the spring and summer of 2020 due to the COVID-19 pandemic. The Chemistry Department has not yet integrated the PLO/CLO assessment data into the new assessment management platform called AEFIS (Assessment, Evaluation, Feedback & Intervention System). They are in the process of being trained, and all course coordinators will be responsible for this function and remain current moving forward.

## Transfer and Employment Opportunities

The most recent data finds employment opportunities in the fields of Chemists, Chemical Technicians, Biochemists, Environmental Science and Protection Technicians (Including Health), Chemical Engineers project employment is high and area transfer programs are strong.

### Top Schools For This Field in the Philadelphia Area

Temple University  
University of Pennsylvania  
Drexel University  
Villanova University  
Swarthmore College  
Ursinus College  
Saint Joseph's University  
Haverford College  
University of the Sciences  
Arcadia University

### Aggressive Job Posting Demand Over a Deep Supply of Regional Jobs



- **Jobs:** The Philadelphia area is a hotspot for jobs as Chemists, Chemical Technicians, Biochemists, Environmental Science, Protection Technicians (Including Health), and Chemical Engineers. The national average for an area comparable to Philadelphia is 2,771 employees, while there are 4,636 in the Philadelphia area\*
- **Compensation:** Earnings are high in the Philadelphia area. The national median salary for the occupations is \$68,353, compared to \$77,703 here. \*
- **Job Posting Demand:** Job posting activity is high in the Philadelphia area. The national average for an area this size is 116 job postings/month, while there are 212 here. \*

\* National average values are derived by taking the national value for the subject occupations and scaling it down to account for the difference in overall workforce size between the nation and the Philadelphia area. In other words, the values represent the national average adjusted for region size.\* All employment data is provided by EMIS.

## A. Prior Audit

This is the first Academic Program Review for the A.S. Degree in Chemistry. History leading to the development of the A.S. Chemistry degree:

- In 2016 the Board of Trustees accepted the Student Outcomes Committee's recommendation to close the A.A.S. degree in Chemical Technology effective fall 2016.
- Reasons for the closure of the A.A.S. degree in Chemical Technology included declining employment opportunities for graduates with an Associate in Applied Science degree within the chemical industry, and technicians were not on the 2015 High-Priority Occupations List for the Philadelphia County Workforce Investment Area.
- The A.S. Degree in Chemistry provided all requirements for students focused on transfer and core course requirements for Allied Health programs.

## Action Items

The Office of Assessment and Evaluation makes the following recommendations for the Program.

### Enrollment and Demographics

#### 1. Increase Enrollment as follows:

	Fall 2019 (Bench- mark)	Fall 2021 Increase in Headcount*		Fall 2023 Increase in Headcount		Fall 2025 Increase in Headcount	
Headcount	41	43	6%	46	6%	49	6%
Returned to Same Program	34%	14	36%	16	38%	20	40%
Graduated	17%	8	18%	8	19%	10	20%

\*Increase from Fall 2019 headcount

The offering of chemistry courses for the Summer ACE program could provide an excellent gateway for high school students into the Chemistry program. The department could also consider offering a certificate program for workforce development in analytical techniques. The department is well-poised for a workforce development certificate with the available instrumentation and expertise.

Person responsible: Department Head

Timeline: Fall 2022 through Fall 2026

### Success/Graduation

2. 42% of Chemistry student (28 of 66) non-graduates, whose first semester was between 2015-2019, departed the college with 45 or more earned credits. Thirteen students transferred to a 4-year institution; however, the remaining we have no information about their next steps. Forty-five credits appear to be a tenuous point for many Chemistry students. The program should investigate the barriers to completion; are they financial or other family responsibilities or burnout or pull from transfer institutions? How can the College support these students through completion? The department should brainstorm with counselors, advisors, and other student success teams. This percent of students departing with 45 or more earned credits should decrease by half over the next five years

Non-Graduates	Earned 45 or more credits	28	42%
	Earned less than 45	38	58%
		66	

Person responsible: Department Head

Timeline: Fall 2022 through Fall 2026

**Transfer**

3. The Chemistry program The department should continue exploring transfer agreements with regional and national institutions to provide opportunities for our students to enroll in 2:3 (Associates to Masters) pipeline and programs like Doctorate in Pharmacy (Pharm. D.)

Person responsible: Department Head

Timeline: Fall 2022 through Fall 2026

**Assessment**

4. Prioritize the transition of all assessment processes and reporting into AEFIS

Person responsible: Department Head

Timeline: Spring 2022 through Fall 2022

5. Assessing all four PLOs every two years may not be an optimal assessment plan. The concurrent collection and analysis of assessment data for four PLOs does not support sufficient time for deep analysis and the application of revisions to foster continuous improvement. During this transition period to AEFIS, consult with the Office of Assessment and Evaluation to consider other strategies to simplify the process and increase function.

Person responsible: Department Head

Timeline: Fall 2022 through Fall 2026

## 2. Narrative

In fall 2016, the Chemistry department transitioned from an A.A.S. Degree in Chemical Technology to an A.S. Degree in Chemistry. Just as this transition was a collective effort, the development of this Academic Program Review was a collaborative effort. The data tells a very successful story of enrolling students and supporting their retention, graduation, and transfer success.

The Chemistry program is a select and rigorous program preparing students to continue their education for professional careers and advanced study as Chemists, Chemical Engineers, Chemical Technicians, Pharmacists, Biochemists, Environmental Science and Protection Technicians (Including Health). Projected employment in these professional sectors is high, and area transfer programs are strong.

Program faculty support students in the transfer process from providing academic planning and guidance to inviting speakers from the CCP Counselling Department and Career Connection and outside speakers from the American Chemical Society (ACS Philadelphia Section) and the Singh Center for Nanotechnology, University of Pennsylvania.

The Program mentors are also the advisors for the Chemistry Club, a student-run club. The club aims to help students connect with other students, build leadership skills, and make their time at the college as positive as possible.

The department would like to have more of a role in connecting with the students since many faculty have industry experience in research and raw materials production and still maintain connections through ACS. To further engage learning and opportunities, it is department practice to take students on trips to production facilities, water treatment plants and invite industry speakers to meet with students.

As a community college, the Chemistry department is working to be recognized as a leader in the quality and quantity of minority students' STEM education by working to establish regular research partnerships for CCP students with Drexel University and other local transfer institutions.

Looking forward, the Chemistry faculty mentors are preparing a directory of Chemistry program graduates with their most current contact information to stay connected with them. They plan to reach out to students in their second year and are expected to graduate to determine whether they have sufficient transfer information, help them with their career and transfer intentions, and find employment in the field locally.





**Student Outcomes Committee Agenda Calendar**  
**Monthly Topics\***  
**2022**  
**DRAFT**

<b>SOC Meeting</b>	<b>Topics Scheduled to be Addressed</b>
January 2022	<ul style="list-style-type: none"> <li>• Medical Laboratory Technician Academic Program Review</li> <li>• Faculty Professional Learning Update</li> </ul>
February 2022	<ul style="list-style-type: none"> <li>• Chemistry Academic Program Review</li> <li>• Pre-College STEM Initiatives</li> <li>• Review of SOC Agenda Calendar</li> </ul>
March 2022 Committee of the Whole	<ul style="list-style-type: none"> <li>• Catto Scholarship Update</li> <li>• Enrollment Update and Trends</li> <li>• CCRC KPI Data for Guided Pathways</li> <li>• CATC – The Student Experience Overview</li> </ul>
April 2022	<ul style="list-style-type: none"> <li>• Faculty Promotion Approval</li> <li>• Cybersecurity/Network Administration Academic Program Review</li> <li>• Diversity Fellowship Update</li> </ul>
May 2022	<ul style="list-style-type: none"> <li>• Education: Early Childhood (Birth to 4th Grade) Academic Program Review</li> <li>• Dual Enrollment Update</li> <li>• Academic Equity Coaches Initiative</li> </ul>
June 2022	<ul style="list-style-type: none"> <li>• Nursing Academic Program Review</li> <li>• Diversity Certificate Programs</li> </ul>
September 2022	<ul style="list-style-type: none"> <li>• Automotive Technology Academic Program Review</li> <li>• Culinary Arts Program Mid-Term Review Progress Update</li> </ul>
October 2022 Committee of the Whole	<ul style="list-style-type: none"> <li>• Catto Scholarship Update</li> <li>• Enrollment Update</li> <li>• Center for Male Engagement/I Am More Update</li> </ul>
November 2022	<ul style="list-style-type: none"> <li>• Communication Studies Academic Program Review</li> <li>• Dental Hygiene Academic Program Review</li> <li>• Faculty Professional Development Update</li> <li>• Liberal Arts: Honors Academic Program Review One-Year Update</li> <li>• Behavioral Health/Human Services Academic Program Review One-Year Update</li> </ul>

\*Additional program and certificate reviews, and discussion topics may be added as needed. 1.27.22