

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

MINUTES

Thursday, October 20, 2022

10:00 a.m.

Zoom/Hybrid

Presiding: Ms. Fulmore-Townsend

Committee

Members: Rep. Morgan Cephas, Mr. Patrick Clancy, Ms. Sheila Ireland, Mr. Tyrell McCoy, Ms. Rosalyn McPherson, Ms. Mindy Posoff

Board

Participants: Mr. Tyrell McCoy

College

Members: Dr. Generals, Dr. Lipscomb, Dr. Marshall, Dr. Thomas

Guests: Dr. Birge, Ms. Norment, Mr. Saxton, Dr. Shannon

(1) Public Session

(a) Introductions:

Dr. Marshall welcomed the Automotive Technology Faculty to the Student Outcomes Committee meeting. Introductions were made to Richard Saxton, Assistant Professor and Department Chair of Transportation Technologies, Dr. Darren Lipscomb, Associate Vice President, Enrollment Management, Dr. Eric Shannon, Director of Institutional Research in the Office of Institutional Effectiveness and Dr. Amy Birge-Caracappa, Professor of English, Director of Assessment, and Coordinator of General Education in the Office of Assessment and Evaluation Institutional Effectiveness Unit.

Ms. Arielle Norment, Interim Dean of Business and Technology, was introduced as well. Dr. Marshall took a moment to show her appreciation for Ms. Norment. She informed the committee that Ms. Norment stepped in as an Interim Dean before Dr. Marshall arrived at the College. It was noted that Ms. Norment has been doing an amazing job. At this time, Dr. Marshall wanted to give kudos and thank her, in front of everyone, for her hard work and her leadership in that role.

(b) Approval of the Minutes of September 22, 2022

The minutes were approved unanimously.

(c) Automotive Technology Academic Program Review

Mr. Saxton informed the committee of his 26 years at the College and during this time he's been involved with the program which is now transportation technologies. There are quite a few different programs. Now, besides automotive, there's medium and heavy truck programs.

The automotive program has been relatively stable, even during COVID. We've seen some interesting numbers as far as classroom efficiency. Comparing our numbers against the demographics of the regular college, we have seen a lot of positives as far as Black males being successful in our program; women being successful in the program, and recently acquired an NSF grant.

Mr. Saxton reported that with the hard work put in from the previous Dean, Dr. Carter, Ms. Norment, himself and the consulting firm, they all came together as part of a \$500,000 NSF grant. The grant will help develop a better recruitment strategy for women and underrepresented minorities. It should help grow our numbers which he reported were approximately (targeted in the report) at 16% growth year to year.

This is a pretty substantial growth consistently over that five year period.

A conversation around hiring qualified faculty included the need to attract qualified faculty to the program as this could double enrollment. It seems that people are not willing to leave lucrative industry jobs to become faculty. Current faculty salary is a factor. We got lucky to get Carmelo Robles recently because he wanted to make a transition and not necessarily looking for work. It is like finding a needle in a haystack. To hire qualified faculty/technician, we have to be very strategic. Even though they have skills in shop they might not have the instructional skill set necessary.

There was discussion around how we are thinking about the future of Automotive Tech and more specifically, the continued investment that would be required at the CATC to keep us at pace with the rapidly growing industry. The committee were concerned about being engaged in some strategic planning around where we are now as opposed to where we need to be in the future, and how we can continually invest in the program to make sure that we're at the cutting edge.

Mr. Saxton informed that most of the equipment that we require and we purchase, is through Perkins and are not necessarily straight out of the college operating budget. In general, review of equipment is through our Advisory Committee and the approval through the Advisory Committee, which is all required through Perkins. This is how we acquire those kinds of electric vehicle training equipment as well as advanced driver assist systems, blind spot monitoring, adaptive cruise control, and the like. We are on the cutting edge right now with the new building. We put a lot of those pieces already in place.

Often, we will get donations from manufacturers because they want us to train our students on their vehicles so this is with Nissan, Toyota, Ford and Subaru. Our latest partner that will be coming out in the Fall will be Fiat Chrysler.

Having a brand new building, which is very attractive to students, I think we'll be able to accomplish growth in the next five years. Mr. Saxton felt that with the proper outreach and students visiting the facility, we can attract more students.

Dr. Birge gave a synopsis of the Auto Tech program which included that CATC figures largely reflect great opportunities for students of color and females. The Auto Tech program provides female students and Black students long-term professional career prospects and economic security at a higher rate than the national average. . Assessment is on track for Auto Tech outreach for women. It was reported that Auto Tech has slightly lower percentage full-time enrollment than the College which is 26.7% to 28.8% but a higher percentage of Black/African American male students than the College - 31.3% to 13.5%. Compared to the national average, Auto Tech enrolls a higher percentage of Black students - 37.5% to 9.9% and a higher percentage of female students -6.5% to 3.5%. The plan is to enroll more. It was mentioned that greater specialization may lead to more transfer opportunities.

Questions about attrition were addressed. Dr. Birge informed the committee attrition from the last APR really had to do with students not being able to get the courses that they needed in the right semester or term to stay on track and graduate.. Scheduling itself was an issue. It was brought up that the CATC building really will lend itself to scheduling more classes during the regular Fall/Spring semesters which we were unable to do previously with the small size of our previous location.

The committee felt this APR had very strong results and are looking forward to seeing how the additional resources, new facility and relationships will help this program continue to thrive and grow.

Action: The Student Outcomes Committee unanimously recommended that that the Board of Trustees accept the program review for the Automotive Technology Academic program with approval for five years.

(d) Culinary Arts AAS Mid-Term Review

Dr. Marshall noted that one of the things to know is the challenge that Culinary has had over the COVID time period when faculty couldn't actually be in-person in kitchens, cooking and working with students. So there were some challenges with enrollment during that time period. She is excited to see a trend in the other direction and to see reinvigoration of the program. There are some exciting opportunities to engage with the community and connecting our students with restaurants in Culinary and Hospitality as well.

A discussion arose regarding the capacity of the program and how many students are currently enrolled. The Culinary Arts program currently has 81 students. Ms. Norment informed the committee that the plan is to keep the program and courses small due to limited space in the kitchen and for the individualized attention and hands-on experiences.

Mr. Clancy inquired about any challenges with students making it to graduation because skills they have picked up along the way are more marketable for immediate employment and they can jump down and go to work prior to graduation. Ms. Normont stated that students jumping down prior to graduation was not an issue. Typically what is seen is that students work part time and take classes full time to complete coursework.

There was dialogue regarding whether or not employers still want the Associate's degree versus the credential. Like other programs that is seen in the city, some of the culinary programs are not two years and they're more credentialed based or skill based. An inquiry was made as to whether there is still a need, from the employer's perspective, for an Associate's degree. Ms. Normont assured that there is a need for an Associate's degree, especially for the higher level positions. So we can see students that upon graduation, they're able to move directly to supervisory management roles. The employers and student benefit from the degree. We are trying to build those relationships with organizations such as Job Corps and/or Philabundance, and others as such, so that we can get their graduates into our program through articulation agreements and prior learning assessment.

Action: The Student Outcomes Committee unanimously recommended that that the Board of Trustees accept the Mid Term Review Update for the Culinary Arts AAS program.

(e) New Business

There was no new business.

Next Meeting

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

Attachments:

Minutes of September 22, 2022

Automotive Technology Executive Summary APR

Culinary Arts AAS Mid-Term Review

STUDENT OUTCOMES COMMITTEE OF THE BOARD OF TRUSTEES

MEETING MINUTES

Thursday, September 22, 2022

2:00 p.m.

Pavilion Klein Cube, P2-3 and via Zoom

Presiding: Ms. Chekemma Fulmore-Townsend

Committee

Members: Ms. Rosalyn McPherson, Ms. Mindy Posoff, Representative Morgan Cephas

Board

Participants: Chairman Harold Epps

College/Cabinet

Members: Ms. Carol de Fries, Dr. Guy Generals, Dr. Alycia Marshall, Ms. Danielle Liautaud-Watkins, Ms. Victoria Zellers

Guests: Interim Dean Arielle Norment, Chuck Herbert, Michael Hackett, Barbara Hearn, Elizabeth Gordon

(1) Executive Session

There were no agenda items for the Executive Session.

(2) Public Session

(a) Approval of the Minutes of June 2, 2022

The minutes were approved unanimously.

(b) Academic Program Review

Interim Dean Arielle Norment – Oversees the computer technologies programs, Chuck Herbert, Michael Hackett, Barbara Hearn, – Computer Info Systems AAS Degree.

Computer Information Systems (AAS Degree)

Chuck Herbert, Dept. Head, provided highlights from the oldest Computing degree program at the College. Mr. Herbert noted that the Computer Information Systems program started back in 1964, and faculty from Penn and Drexel assisted with starting the program. Mr. Herbert, shared that in 1966/67, CCP was the first in the country to start an AAS degree in Computing. The first dean of science who was from Penn, recruited then-recent Penn graduates to start the program. Mr. Herbert noted that the program name has changed but it is the same program. Mr. Herbert shared that the Department decided on a model that led to specific degrees in certain hot topics:

- Cybersecurity
- Networking

- Web and App Development

The CIS IT degree is broken up into 3 parts:

- General education core
- Required Computing courses
- Elective Computing Courses (3rd part is flexible)
 - Mr. Herbert noted that the 3rd part of this program structure provides the students with flexibility to determine what they want to focus on and still finish their degree to avoid getting stuck in the mix of innovative changes in the program. There is a core number of classes that every CIS IT AAS degree must take and many of the course offerings are focused in specific professional certifications.

Mr. Herbert shared that while enrollment has been down at the College, enrollment in the CIS IT program has held up and hasn't had as much attrition. Mr. Herbert mentioned that they want to look at 5% growth in the future for the CIS IT program.

Challenges/Opportunity –

Mr. Herbert noted that the Department wants to increase the number of female students who enroll in the program. The percentage of students that are female are below the female average at the College and the national average, and the department would like to pay closer attention to this problem.

Mr. Herbert cited a couple of statistics about women of a certain age making career decisions differently than men do. They have different reasons for choosing their professions. Due to the Department's goal of increasing the number of female students that enroll in the CIS-IT AAS degree, the Department plans to investigate women in technology grants from NSF to get assistance with recruiting women. The problem of not having or attracting enough women into the information technology field exists across the country and reflects less than 25% of those who work in the field are women.

Mr. Herbert is also suggesting a curriculum revision for *CIS 270- Systems Analysis and Design* and *CIS 271- IT Project Management*. The two courses are similar. Systems Analysis is no longer taught at the Associate level most places, and is no longer needed if we teach Project Management. Mr. Herbert said the Department believes the Business Leadership, Fashion, & Hospitality Department is better suited to teach Project Management than the Computer Technologies Department and that the program review suggests replacing CIS 271 with *PJMT 110 - Foundations of Project Management*.

Mr. Herbert stated that they worked very hard to diversify the faculty in the Computer Technologies Department and he is very proud of it. He stated that the CIS IT Department had 17 faculty members (16 white males 1 African American) when he started at the College in the 1980's. Today, the Department is among the most diverse in the College, especially the part-time faculty, the majority of whom are now female and a majority are African American. Mr. Herbert noted that the Department will continue to focus on diversifying the faculty.

Ms. Hearn stated the CIS103 course is the largest course in the Department and every student pursuing an associate degree at the College must take it or a similar course to satisfy the

College's Technological Competency requirement. Ms. Hearn stated that she is always updating the course to meet the innovative demands of the industry. Ms. Hearn expressed wanting to collaborate with other departments and programs for CIS 103 and is leaning towards starting with Automotive Technology for the different programs who must take the course. Ms. Hearn is a graduate of the college and takes pride in the program's growth and where it is going.

Ms. Hearn also stated that she still works with the Tech Girls program and she is looking to start the program back up. The program was paused due to the pandemic. The program is designed to work with middle school girls to teach them how to code and create applications. The CIS IT degree is a general degree and serves several purposes.

Ms. Gordon from Institutional Effectiveness reinforced what Mr. Herbert shared regarding the CIS IT program enrollment and stated that the enrollment was resilient before and during the pandemic and has had consistent enrollment growth even when the College's overall enrollment dipped.

Ms. Gordon also shared that the program's efficiency ratio was strong and tended to fill up. Retention and completion in the CIS IT program are a little bit stronger than the College's average. They are looking to develop surveys and engage students who appear to be transferring out of the program after they complete 12 credits to understand why they are transferring out of the program.

Ms. Gordon also stated that the drop-ins and drop-outs are skewing the numbers a bit.

Ms. Fulmore-Townsend inquired about CIS IT student level outcomes and expressed concerns around struggling through assessment which was previously identified in the previous APR.

Mr. Herbert shared that the CIS program faculty utilized the assessment recommendations from the previous audit to make the current changes and ensured that the recommendations were implemented.

Mr. Herbert shared that the department has since responded to this need by using AEFIS (an assessment software program), the assessment data is complete, and they have closed the loop. They need to go over the assessment data for every course every semester to determine what intentional actions need to be taken from the data.

Mr. Herbert referenced the information that was being discussed and noted that the items were located on the top of page 11 on the Student Outcomes meeting materials.

Mr. Herbert noted that the AEFIS program has not been working properly. The department's assessment data is being gathered for the entire year which includes; fall, spring, summer 1 and 2, and winter semesters.

Mr. Epps expressed concern regarding a process issue referencing the assessment gap.

Mr. Herbert stated that the CIS department has all the assessment data and reports from the coordinators that show the progress that the department made. The prior audit pointed it out

as a weakness, and they have the information readily available to provide to middle states, so this has been addressed.

Ms. McPherson – Posted two comments in the chat before she left the meeting – What steps has the department taken to address the differences between recruiting before and after in the age of covid?

Mr. Herbert shared that the Department got away from recruiting at the high schools due to the pandemic. The department wants to take a more sophisticated approach to find out what will help them attract more women (possibly through an NSF grant) and they have been paying attention to other things and got away from the decline in women who enrolled. The National Center for Women in Technology is one of the areas they would like to strategically target. They want to work with them to get more information to see if funding is available to help them with this recruitment initiative.

Mr. Herbert shared currently no women teach Computer Science at the College. They would like to target identifying women to teach Computer Science. Mr. Herbert shared that he knows someone who recently retired that may be interested. They recently lost a couple of female faculty members who moved on to teach other subjects and shared that they have a lot more flexibility with PT positions.

Representative Cephas stressed that there should be an emphasis placed on identifying women of color (Latina and African American women) and shared that if it is not measured it is not managed.

Representative Cephas also asked Mr. Herbert and the faculty how they are going to measure the data and shared that the Department will have to look at the data to determine the impact they believe that hiring qualified women will have on the department. The department believes that this will make it easier to attract other female faculty members and ultimately female students.

Mr. Herbert also shared that CIS IT is a bigger program so it is easier to recruit more diverse faculty, whereas computer science is a little harder to recruit for and they must be conscious of this challenge. They plan to talk to experts and request advice from those who have had a proven track record in recruiting minorities and women.

Representative Cephas asked Mr. Herbert if there is any thought of looking at the CTE pipeline with the School District and suggested that neighborhood schools should be considered not just magnet schools and Girls High.

Mr. Herbert said the department works with the School District's CTE programs, and has visited high school CTE classes in the past and they would like to get back to doing so post-COVID.

Mr. Herbert shared that students who take networking in high school and take the NOCTI (statewide exams that replace professional exams for A+ and Network+ certification for students enrolled at CTE HS programs) exams can get AP credit if they pass to transfer into CCP.

Ms. Posoff wanted to know the impact of increasing enrollment and the connection to marketing and wanted to know what targeted marketing opportunities could be implemented to support the recruitment effort?

Ms. Posoff also shared that the collaboration of curriculum is an exciting idea and is curious to know how this came about.

Mr. Herbert shared that the Department tries not to do things that other people are better at. He referenced the example about project management and systems analysis. They tend to work together with colleagues who have additional expertise in these areas collaboratively to create curriculum.

Mr. Herbert shared that the CIS IT connection to marketing is the program coordinator and they also worked with John Neugubeuer and he partnered with faculty to visit the high schools but now that he has moved on to a new position, there is a bit of a void in this space.

Mr. Herbert shared that the faculty worked to hold an open house in August, and that Admissions thinks we picked up 12 FTEs as a result of this event.

Chairman Epps asked how wide is our definition of information science and do we offer artificial intelligence, drones, e-sports, robotics, etc. and what is our use of these words in our curriculum? In addition, how do they fit into our present or future programs – Mr. Epps further expressed that the cutting edge of this industry is machine learning and data science.

Mr. Herbert shared that the cutting edge of AI is machine learning and that the program does have a machine learning course. He said in associate's program we must build a foundation first to help prepare students for a 4-year program which goes more deeply into AI.

Mr. Epps shared that if we don't say the words like artificial intelligence, e-sports and robotics, it will prevent us from connecting with 17- 25 yr. olds. Maybe creating certificates in robotics combined with engineering and computer science could serve as a foundational course. You can start to think about the related career fields and part-time work opportunities.

Mr. Epps shared that we should work to connect with Comcast to offer scholarships, and the students that apply should get to visit NBC and Comcast even if they don't get the scholarship. This gives them an opportunity to show the connection to the programs that we offer. We need to reach as deep into the next generation as possible, - do we have structured planned programs for pipelines of partnerships starting at elementary school?

Ms. Hearn shared that we had our students become tutors at the elementary school – Working with young girls in elementary school like our Jr. Stem Academy. She shared that women tend to make decisions about their careers earlier. The tech girls organization allowed them to target middle school girls to teach them game development, and provide things like workshops in a box at no charge to the students.

Ms. Norment shared that the program offers foundational courses such as intro to gaming simulation and introduces gaming at the entry level. Offering summer camp to middle schools is also another opportunity. We also offer a Robotics course co-taught by Computer Tech and

Engineering faculty and offer scholarships through NBC Universal/Comcast to Computer Tech students. We may need to determine where it will be housed. We can set up a lab for current students and open it up to the general public to spark an interest in the CIS field overall – so they can create a hands-on program lab.

Action: The Student Outcomes Committee unanimously recommended that the Board of Trustees accept the program review updates for Computer Information Systems – Information Technology with 5% growth over five years with the goal of reviewing the potential for growth up to 8%.

Computer Science – Mr. Hackett was hired as the program coordinator to start and oversee the computer science program –

Mr. Herbert shared that everything is kept current for the program and enrollment has been growing since 2017 until now even though the college's enrollment was slowing down and Mr. Herbert shared that this semester, every section of CIS 111 was filled.

Mr. Herbert believes that this program works better in person although they were able to grow by offering the program online. He provided two examples; the students can find teachers when they are on campus to work through questions about their assignments. Faculty can follow up with written responses through Canvas and can respond to the students in real time. What else can we do to be proactive and intentional?

Mr. Herbert shared that computer science is one of the fastest growing programs at the College. We don't want to compromise the quality of the program, steady growth with intentional outreach to women and people of color. Faculty are willing to do whatever it takes to help the program grow which was noted as a strength of the computer science program. It is structured as an honors program for computing.

On the other end of the spectrum, the department is trying to find ways to further engage students who have developmental course needs by exposing them to computer lessons while they are taking developmental courses.

Ms. Gordon shared that the program accreditation board for engineering standards – makes the graduates in high demand when they earn credentials and graduate. She cited notable recent transfers of students that can be found in the handouts for the SOC meeting. Enrollment was stable during the pandemic and most students in the program are full time. There are strong pathways to careers and on average, the program retains 50% of its students year-to-year. Over the past 5 years, 41% of the AS degrees offered at the college are computer science degrees.

Dr. Marshall added that there are only 5 associate degrees of science at the institution and is impressed with the steady enrollment outcomes. Faculty are continuously engaged in the program which has helped the consistency of enrollment.

Mr. Herbert acknowledged that there is a growing need for female students in the program and acknowledges that there is a need for female instructors in the program as well. The division is experiencing this in multiple disciplines and they are focused on access and equity to participate in the program.

The alignment with the accrediting model has helped to strengthen the school to career pipeline. The department's focus is to identify female faculty and students strengthening pipeline with K – 12 developing specific metrics and putting them in place to structure the metrics with outcomes for the recruitment arm of the program.

Mr. Herbert is retiring at the end of the year and Dr. Marshall expressed some concerns around finding his replacement and a chair considering the challenges with recruiting highly qualified faculty in this high demand field.

Dr. General asked if we know the degree to which he is retiring and asked if we have the leadership in place to build upon in Chuck's absence. Dr. Marshall shared that she is confident in the team that Ms. Normont has with Ms. Hearn and Mr. Hackett and other faculty. The department is currently searching for a new Computer Science faculty member to replace Professor Herbert.

Representative Cephas asked if we can get targeted enrollment information of where the programs are heading and the activities that are taking place to get them to the numbers that they are proposing to grow enrollment. The overarching goal was to identify how they are coming up with their goals for growth.

There was interest from the Board members to see metrics regarding the outcomes related to the discussed strategies to recruit female students and women as faculty members and what pipelines they will tap into. It was shared collectively that these would be great metrics to see.

Mr. Epps wanted to revisit the process question – adding the cross-college partnership/collaboration for the SOC meetings to ensure that we are efficiently utilizing our resources.

Ms. Townsend asked for a motion to approve computer information systems technology program AS degree – and Mr. Epps asked to approve the motion with a target for growth of 5% total enrollment growth for the institution and felt that this is a more conservative approach given the fact that this program is one of the top 5 programs for growth at the institution. It was shared that since this is the first program that the Board is approving this year, the recommendations should be thoughtful as they want to ensure that they are consistent in their diligence to approve programs and reasonable projected growth.

Action: The Committee unanimously approved the Computer Science program for 5 years and would like to review the enrollment growth and strategies over the next year to determine if the goal of 5% enrollment growth should be increased to 8%.

Rep Cephas asked how the growth rate is determined for this program – is it based on industry growth? or the College's goal over the next 5 years. The committee discussed institutional enrollment growth which hasn't been at 8% so why this amount for the program? We need to talk about how we are making these projections. It should be informed by institutional trends, department and community trends.

The committee then discussed in more detail the process of setting growth targets for

programs as well as the relationship between the program enrollment goals and the College's overall growth target.

Dr. Marshall shared that the Computer Information System and Computer Science departments are among the top 5 programs for enrollment in the Business & Technology Division. We need better information to balance our actions with our intention – better information about what's possible – talk about the full picture of program growth – to focus solely on one area without focusing on how these programs are integrated into the other areas in the College should play a role in this process. In addition, consideration should be given to the availability of college resources needed to intentionally grow programs such as marketing and facilities as well as the availability of qualified faculty in hard to hire disciplines.

Ms. Posoff shared that if we understood marketing's priorities, we could have a better understanding of the process to market our programs.

Mr. Epps shared that we should be doubling down on resources to satisfy the demand of employers.

Ms. Townsend shared that our Marketing Department promotes to bring people to the institution, not to specific programs – and Mr. Epps shared that we should be doubling down on marketing our top 5 programs.

Ms. Townsend said that the data will determine reality – affirmative or negative – we have a department that is struggling to find faculty – what does it take to make it grow?

Dr. Marshall shared that it will take a while to make this happen so we can see what is possible in terms of gathering the appropriate projection data.

Ms. Townsend shared that she is comfortable with the 8% growth because it is over 5 years and in addition, shared that the Committee should look at the nursing recommendations from last year as the best way to formulate the approach.

Mr. Epps shared that we lose company partnerships when we can't build capacity to support their company growth.

Ms. Townsend asked if there was any hesitancy in approving this program for the next 5 years at 5%.

Mr. Epps shared that given what was discussed about how programs are determining their enrollment growth targets, the Committee agreed to approve the computer science program at 5% over 5 years for now with the option to review and increase enrollment projections to 8% after consulting with institutional effectiveness and the marketing department to review the college-wide enrollment trends.

Ms. Townsend concluded that the Committee needs to acknowledge the gaps in their learning and understanding of these processes at the College and Mr. Epps acknowledged that we want to determine how efficient we are at enrollment growth against our peers.

Ms. Townsend asked for a motion to adjourn the meeting. It was stated that the Committee

needed to find a new regular time to meet. Ms. Townsend acknowledged that the Committee has historically met on the same day of the board meeting and a doodle poll would be forthcoming to determine when the SOC meetings will take place this year once Ms. Townsend and Dr. Marshall meet to discuss the meeting options.

Attachments:

Minutes of June 2, 2022

Computer Information Systems-Information Technology Academic Program Review

Computer Science Academic Program Review

Community College *of* Philadelphia

Academic Program Review: Automotive Technologies (AUTP), A.A.S.

Authors: Richard Saxton, Dr. Dawn Sinnott
Fall 2022

Executive Summary

A. Key Findings

Enrollment

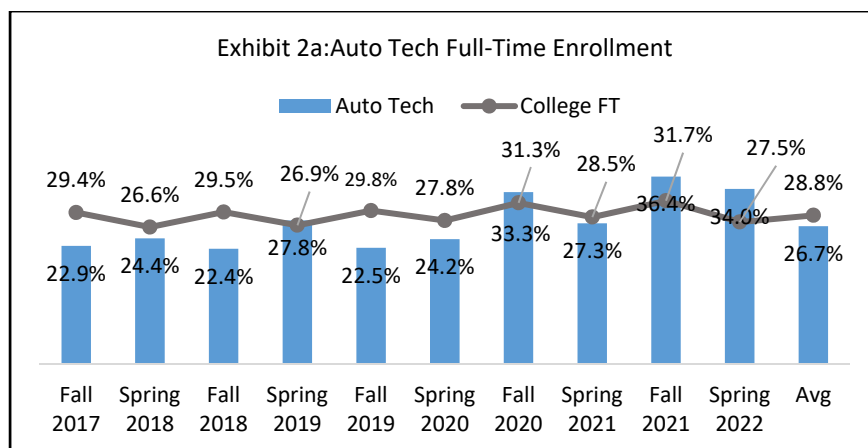
Exhibit 1: College and Automotive Technology Enrollment											
	Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Average
College- Wide	17,296	16,503	16,671	15,544	15,996	14,789	13,673	12,195	11,647	10,431	14,474
Automotive Technology	83	78	85	79	71	62	45	44	55	53	66

1. Average enrollment in the Auto Technology (AT) Program between fall 2017 and spring 2022 was 66 students per semester, see Exhibit 1

2. Enrollment and Demographics

- a. Automotive Technology's average full-time enrollment (26.7%) is slightly lower than the college average (28.8%); see Exhibit 2a
- b. Enrollment by Gender within Race, see Exhibit 2b
 - On average, the AT program's distribution of gender and ethnicity indicates a higher percentage of Asian males (14.3%) than the College (4.6%)
 - On average, the AT program's distribution of gender and ethnicity indicates a higher percentage of Black males (31.3%) than the College (13.5%)
 - On average, the AT program's distribution of gender and ethnicity indicates a higher percentage of Hispanic males (20.5%) than the College (5.0%)
 - On average, the AT program's distribution of gender and ethnicity indicates a higher percentage of White males (13.1%) than the College (8.6%)
- c. According to auto mechanic demographics provided by ZIPPIA ¹, over 180,251 auto mechanics are currently employed in the United States. The AT program provides female students and Black students long-term professional career prospects and economic security at a higher rate than the national average. See Exhibit 2c
- d. On Average, AT students were more likely to be young, between 16 to 21 years of age, than the college-wide average; AT 52% and College 41%, see Exhibit 2d

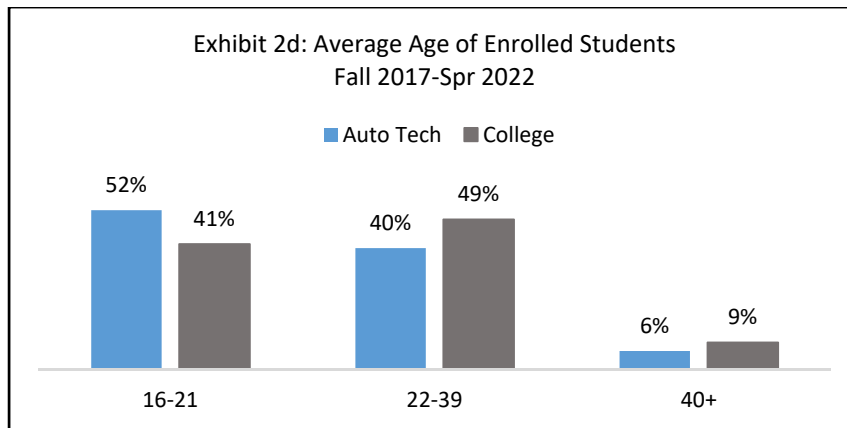
¹ [Auto mechanic demographics and statistics in the US](#)

**Exhibit 2b: Gender and Ethnicity by Auto Tech Program Majors**

		Fall 2017	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	AUTP Average	College Average
Asian	Female	0.0%	0.0%	0.0%	0.0%	1.8%	1.9%	0.0%	2.6%	3.9%	0.9%	5.6%
	Male	14.3%	8.0%	11.8%	13.2%	10.7%	11.5%	17.5%	28.9%	21.6%	14.3%	4.6%
Black	Female	0.0%	4.0%	2.0%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.9%	30.4%
	Male	33.3%	36.0%	33.3%	34.0%	28.6%	26.9%	30.0%	31.6%	31.4%	31.3%	13.5%
Hispanic	Female	0.0%	4.0%	0.0%	1.9%	7.1%	5.8%	7.5%	5.3%	0.0%	4.2%	10.4%
	Male	19.0%	20.0%	23.5%	20.8%	25.0%	25.0%	15.0%	13.2%	29.4%	20.8%	5.0%
White	Female	0.0%	0.0%	2.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	14.4%
	Male	19.0%	12.0%	11.8%	13.2%	12.5%	17.3%	12.5%	7.9%	5.9%	13.1%	8.6%
Total Female											6.5%	60.8%
Total Male											79.5%	31.6%

Exhibit 2c: National Auto Mechanic Statistics by Race

Auto Mechanic Race▲▼	Percentages▲▼	Automotive Program
White	65.6%	14.4%
Hispanic or Latino	17.2%	20.6%
Black or African American	9.9%	37.5%
Asian	4.6%	17.7%
Gender		
Male	96.4%	79.5%
Female	3.6%	6.5%

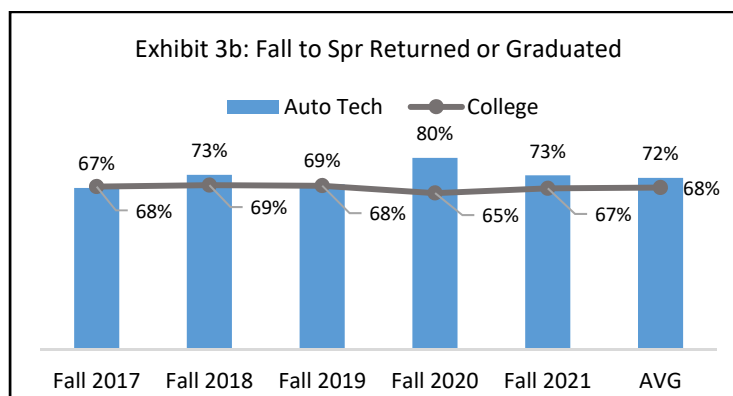


Retention – Returned or Graduated

3. Fall to Spring Retention

- Fall to Spring Retention between fall 2017 and fall 2020: The Automotive Technology program's fall to spring retention, Returned to Same Program, averaged 4 points higher than the College average, see Exhibit 3a
- Fall to Spring Retention: On average, 72% of AT students returned to the same program or graduated, while 68% of students College-wide returned to the same program or graduated, see Exhibit 3b

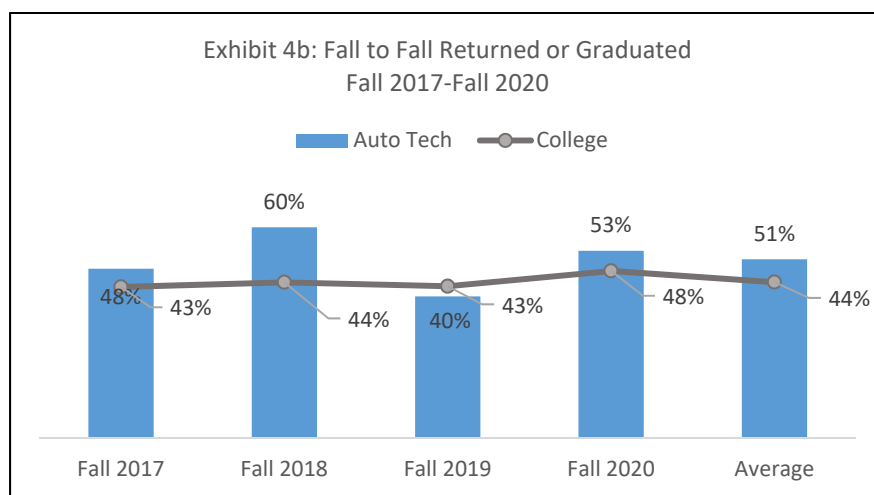
Exhibit 3a: Fall to Spring Retention							
Automotive Technology	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Program Average	College Average
Headcount	83	85	71	45	55	68	15,057
Returned to Same Program	64%	71%	69%	73%	69%	69%	65%
Returned to Different Program	4%	2%	3%	0%	5%	3%	4%
Graduated	4%	2%	0%	7%	4%	3%	3%
Did Not Persist	29%	25%	28%	20%	22%	25%	28%



4. Fall to Fall Retention between fall 2017 and fall 2020

- a. Fall to Fall Retention between fall 2017 and fall 2020: The Automotive Technology program's fall to fall retention, Returned to the Same Program (38.9%) was slightly higher than the College average (34.2%), see Exhibit 4a
- b. Fall to Fall Retention: On average, 51% of AT students returned to the same program or graduated, see Exhibit 4b

Exhibit 4a: Fall to Fall Retention						
Automotive Technology	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Program Average	College Average
Headcount	83	85	62	45	69	15,909
Returned to Same Program	34.9%	47.1%	32.3%	40.0%	38.9%	34.2%
Returned to Different Program	3.6%	7.1%	1.6%	2.2%	4.0%	7.2%
Graduated	13.3%	12.9%	8.1%	13.3%	12.0%	10.1%
Did Not Persist	14.5%	20.0%	58.1%	40.0%	30.2%	48.5%



Academic Success and Graduation

5. Degrees Awarded

- In Fall 2017, the Auto Tech-Auto Service Option was closed. The Automotive Technology Program absorbed all students and curricula.
- A total of 56 degrees were awarded during the course of this program review

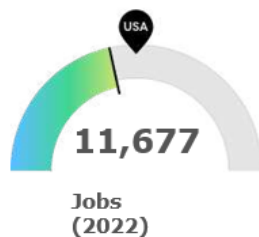
Degrees Awarded							
	2017	2018	2019	2020	2021	2022	Total
AAS College-Wide	587	530	558	482	585	540	3,282
Auto Tech-Auto Svc Tech Op	9	12	8	2	2	1	34
Automotive Technology			1	4	5	12	22
Total Automotive Degrees Awarded	9	12	9	6	7	13	56

Workforce

The following data was accessed through EMSI, a labor market advisor to leaders in higher education, business, and community development since 2001, searching the counties of Bucks, Delaware, Montgomery, and Philadelphia for employment in the following areas, Automotive Service Technicians and Mechanics (SOC 49-3023), Automotive Body and Related Repairers (SOC 49-3021), Mobile Heavy Equipment Mechanics (49-3042), Bus and Truck Mechanics and Diesel Engine Specialists (49-3031) Automotive Glass Installers and Repairers (49-3022) Tire Repairers and Changers (SOC 49-3093).

Regional employment is slightly lower than the National average for an area this size. An average area of this size typically has 14,391 employees, while there are 11,677 here in the Philadelphia area.

Average Job Posting Demand Over a Thin Supply of Regional Jobs



Your area is not a hotspot for this kind of job. The national average for an area this size is 14,371 employees, while there are 11,677 here.



Earnings are about average in your area. The national median salary for your occupations is \$45,444, compared to \$45,636 here.



Job posting activity is about average in your area. The national average for an area this size is 474 job postings/mo, while there are 488 here.

EMS I Local Philadelphia Area Projections for the following counties: Bucks, Delaware, Montgomery, and Philadelphia						
SOC	Description	2027 Jobs	2022 - 2027 % Change	2022 Jobs	Median Annual Earnings	Typical Entry-Level Education
49-3021	Automotive Body and Related Repairers	1,831	(0%)	1,833	\$50,620.04	High school diploma or equivalent
49-3022	Automotive Glass Installers and Repairers	40	1%	39	\$34,557.13	High school diploma or equivalent
49-3023	Automotive Service Technicians and Mechanics	6,130	(3%)	6,292	\$41,458.82	Postsecondary nondegree award
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	1,864	2%	1,825	\$51,169.53	High school diploma or equivalent
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	1,380	1%	1,361	\$53,083.29	High school diploma or equivalent
49-3093	Tire Repairers and Changers	315	(4%)	327	\$26,115.41	High school diploma or equivalent
		11,559	(1%)	11,677		

Most Jobs are Found in the Automotive Repair and Maintenance Industry Sector	
Automotive Repair and Maintenance	37.8%
Automobile Dealers	21.2%
Automotive Parts, Accessories, and Tire Stores	4.5%
Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers	4.2%
Local Government, Excluding Education and Hospitals	3.8%
Machinery, Equipment, and Supplies Merchant Wholesalers	3.6%
Other	24.6%

- Regional Compensation Is the Same as National Compensation**

For the Automotive Technician occupations, the 2020 median wage in the Philadelphia area is \$45,636, while the national median wage is \$45,444.

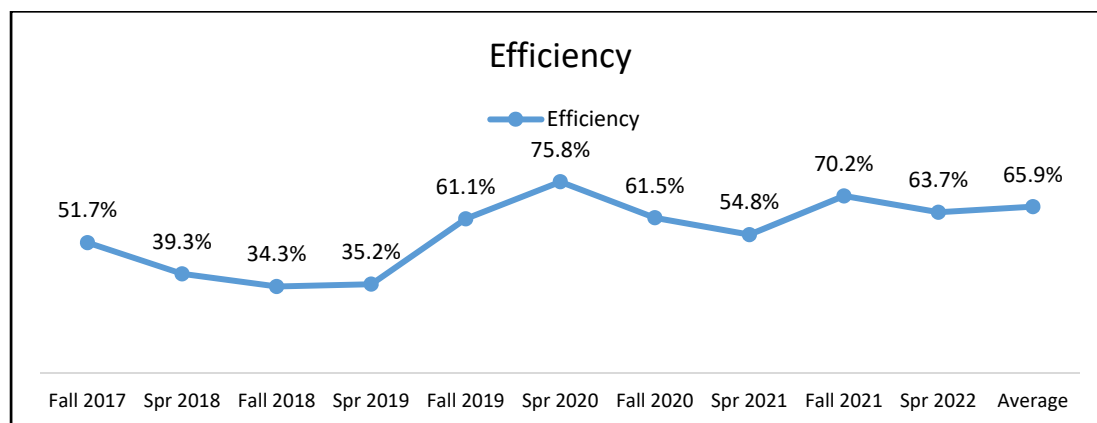
Top Automotive Service Titles in the Philadelphia Area
• Automotive Technicians
• Auto Body Technicians
• Diesel Mechanics
• Autobody Paint Technicians
• Automotive Tire and Lube
• Diesel Mechanic Technicians
• Collision Body Technicians
• Automotive Service Advisors

Section Operating Efficiency

Includes core courses: AT 100, AT 111, AT 131, AT 150, AT 181, AT 241, AT 250, AT 261, AT 271

Efficiency Quotient

The efficiency is a ratio that compares effective capacity, seats available per semester, and actual capacity, seats occupied. The following exhibit shows a 17.2% increase in course enrollment efficiency, which remained strong through COVID and the construction of the new facility in West Philadelphia.



Transfer

Although this is an A.A.S. workforce degree program, the automotive industry is on the cusp of an exciting new era. Today's certified technicians are part of an innovative movement looking toward the future by understanding and diagnosing advanced technology in informational systems and electric vehicles. Students' exposure to education and new employment opportunities is likely to encourage further exploration into various related career options provided by continued education.

Departing Students who entered the College between 2016 and 2020					
Exit Status	Transfer		Did Not Transfer		Total Count of Departing Students
	Count	Percent	Count	Percent	
Graduate	0	0%	24	100%	24
Earned 45 or more credits	1	3%	37	97%	38
Earned 23 to 44 credits	3	12%	22	88%	25
Earned 12 to 22 credits	5	19%	21	81%	26
Earned less than 12 credits	10	13%	68	87%	78
Grand Total	19	10%	172	90%	191

Assessment

The Automotive Technology Program has four Program Learning Outcomes:

- Apply a basic foundation in theory, maintenance, diagnosis, and repair of automotive systems.
- Integrate and analyze online service data, written repair material, and technical service bulletins to repair and service a vehicle.
- Demonstrate proficiency in the use of specialized automotive service tools, electronic diagnostic equipment, and basic hand tools.
- Demonstrate ethical behavior, professionalism, and the ability to work as a team.

Automotive faculty routinely complete course learning assessments for every section of every course, compile the data every two years to track student PLO competency, and make suggestion changes based on results. The assessment cycle is in progress for 2022 and will be compiled and completed in December 2022.

The ASE-EF Education Foundation has also accredited the Automotive Department for over 20 years. The ASE Education Foundation is a non-profit organization that evaluates and accredits automotive technology education programs against standards developed by the automotive service industry. Accreditation requires following the ASE Seven Standards of Accreditation and the ASE 5-step accreditation process designed to evaluate a school's automotive service program—its structure, operations, resources, materials, and mission. The accreditation process follows a thorough review of the seven standards and offers accreditation to programs that meet the industry's instructional standards requirements.

B. Prior Audit

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

1. Identify factors influencing student attrition.

Many students appear to be leaving the program either 1) before they even complete a single Automotive Technology course or 2) once they have completed all Auto Tech courses but without completing their general education requirements. The program should investigate the actual timing and reasons for student departure. These factors should include: scheduling options and space availability; student course taking patterns (developmental students who have not taken an auto tech course, completion of general education requirements); and student intention to complete the degree upon entry.

Program Response:

After reviewing some of these issues, the department found the sequencing of courses was not clearly defined. Course sequences have been updated in the catalog to identify specific timing of courses not offered every semester. Other issues, such as scheduling options and space availability, will be resolved with the new CATC center and the possible addition of faculty. We have also added the Toyota TTEN degree, which will help identify students who have specific intentions of completing the program with a degree within a full-time program sequence; the program is prescribed exactly and only runs with a full-time cohort design. One of the difficulties we are still having is reaching students before they start the program to review their schedule and discuss any concerns about their program. We have created a Fall 2022 new student orientation with the opening of the CATC building and will hold an event for students enrolled in the program but not currently taking classes in October of 2022.

2. Develop methods for improved student contact, particularly early in the program.

The program has developed strong recruitment techniques (with high schools, professional organizations, etc.), but many students who enter the program exit before interacting with Auto Tech faculty. Programs designed to connect with developmental students need to be crafted. Data from recommendation 2 should be utilized in these program management plans.

Program Response:

The Department has established strong bonds with the school district's automotive programs by attending multiple events, hosting automotive student days, providing training opportunities for faculty, and conducting summer camps for 7, 8 and 9th – grade students. Because we only see students once before they start their first class, we have attempted to reach out to all our students listed in the Automotive program during the registration process to help them make good choices.

3. Create a system to maintain contact with former students to gather data on employment, reasons for departure, and transfer.

Program Response:

The Automotive Technology programs are direct-to-work, making feedback from graduates vital to understanding the needs of current students. Although the program is an AAS degree, many students transfer; these students should also be followed to identify the degrees they pursued and the fields in which they are working. The program works well with its advisory committee on the field's current needs; this information would be an important supplement to that process.

We have an alumni group that has held a few events, but since Covid, we have not had much success connecting with our alums in person. We have recently asked graduates to come in and speak to our classes and will continue to add these events. We are planning to hold an alumni event this Fall (2022) that will introduce them to our new programs as well as let them see the new building.

C. Action Items

Enrollment and Demographics

1. Increase Enrollment as follows:

An aggressive enrollment growth cycle is anticipated through the new Career and Advance Technology Center (CATC), launched in fall 2022, providing the facilities and technology to support projections.

To support the goal of increasing enrollment, the Department will also implement outreach and recruitment strategies to attract, recruit, and enroll more female students and strengthen its retention and completion strategies to ensure all enrolled students complete a certificate or degree program. These efforts will be supported, in part, by partnering with the Institute for Women in Trades, Technology and Science (IWITTS) to develop solutions that include professional development, technical assistance, and outreach and marketing.

Projected enrollment growth is also subject to the availability of College resources, particularly in areas of recruitment, admissions, and support for faculty, material, and supplies, as needs develop.

	Average (Bench- mark)	Fall 2021	Fall 2023 Increase in Headcount	Fall 2025 Increase in Headcount	Fall 2027 Increase in Headcount
Headcount	66	55	64 16%	74 16%	86 16%
Returned to Same Program	39%	40%	31 44%	42 45%	58 45%
Graduated	12%	13%	10 14%	14 15%	18 15%

2. Program Growth

With the new Career and Advanced Technology Center (CATC) launch in Fall of 2022, the professional development needs of new and existing faculty are critical to increase program enrollment, improve retention, support program completion, and successful job placement of students.

Track and document the process to ensure optimal new and existing faculty engagement.

Person responsible: Department Head

Timeline: Fall 2022 through Fall 2025

3. Retention and Completion

As part of the NSF Grant's stated objectives, targeted and intrusive advising is integral to student retention and completion. Bring together Department, College, and IWITTS (The Institute for Women in Trades, Technology, and Science) to develop and deliver strategies to ensure women enroll in and complete automotive programs through:

- 1) Creation of an Outreach and Recruitment Plan for women;
- 2) Train and coach related staff on how to prepare and retain women in the automotive/truck program and;
- 3) Develop a customized job placement dashboard to track students' placement, with data for women.

Person responsible: Department Head

Timeline: Fall 2022 through Fall 2027

D. Narrative

A career as an automotive technician presents opportunities for students to engage their natural aptitude for STEM and problem-solving in a rewarding profession. This field constantly evolves with advancements in the engineering and technology that make new vehicles cutting edge. Automotive technicians are in high demand locally and nationwide; choosing this career path can open doors for professional growth and future opportunities.

The Automotive Technology Program is the only AAS program in the Greater Philadelphia metropolitan region (area includes Philadelphia, Camden, NJ, Wilmington, DE, and surrounding counties). In addition to providing progressive training, the program strives to support students in developing marketable skills, finding a career path in the transportation industry, and understanding the value of honesty and integrity to stand behind their work.

The ASE Education Foundation has accredited the Department for over 20 years. This non-profit organization evaluates and accredits automotive technology education programs against standards developed by the automotive service industry. In addition to following institutional guidelines for assessing the course and program learning outcomes, the Department adheres to the ASE Seven Standards of Accreditation and the ASE 5-step accreditation process designed to evaluate a school's automotive service program—its structure, operations, resources, materials, and mission.

Department faculty come from the Automotive Industry and are engaged in all aspects of the program and student success. In weekly meetings, faculty discuss new curriculum development, student concerns, grading, tools, vehicle problems, and items essential to a technical education program. As a result of a unified focus, the Department has made significant advancements during the past five years and looking forward to supporting student success and continued growth. Two notable recent accomplishments include:

- The Fall 2022 opening of the brand new Career and Technology Center (CATC) in West Philadelphia; it's equipped with some of the industry's most advanced technology, bringing training to the forefront of the college's urban neighborhoods. With a focus on career readiness, the CATC provides a platform for state-of-the-art teaching and learning in transportation technologies and supports program growth through:
 - Increased enrollment capacity in credit courses (projected increase from 61 students to 109 students)
 - Tripled square footage of auto technology space from 10,000 sq. ft. to 30,000 square feet
 - Expanded work-based learning training space for new manufacturer partnerships with a variety of companies and industry leaders
 - Increased number of service bays for automotive technology
 - Increased capacity for hands-on learning in connected and autonomous vehicles
- The Department was recently awarded \$546,538 in a competitive NSF Grant focusing on closing the gender gap for women in technology and implementing stronger retention and completion strategies. The Department will contract with The Institute for Women in Trades, Technology and Science (IWITTS) through grant support resources. IWITTS is the only national organization whose sole mission is to provide educators and employers with the tools they need to encourage women to enter and succeed in careers where they are underrepresented. Their proven philosophy is that "Educators know that learning requires information, hands-on experience, repetition, and practice for mastery. When these same concepts are applied to recruiting women and girls to technology and trade classes, then classes begin to fill with female students. Paradigm shifts require repeated

focus and attention”.² The Department and College will work with IWITTS to develop and deliver strategies to ensure women complete the automotive and trucking programs through:

- Creating an Outreach and Recruitment Plan for women
- Training and coaching related staff on how to prepare and retain women in the automotive industry
- Development of a customized job placement data dashboard to track placement of all students, with data for women.

The future of the Automotive Technology Program at CCP is invaluable to the students, the College, and the Philadelphia Community.

² [Empowering Educators to Recruit and Retain Women in STEM and Career Technical Education](#)

Mid-Term Review

Culinary Arts AAS

Presented to Student Outcomes Committee

Prepared by Dr. Lynsey Madison

- I. Overview of Program
 - a. The Culinary Arts program has undergone significant changes in the past three years since the 2019-2020 Academic Program Review (APR). The original program revisions completed during the 2018-2019 academic year were not extensive enough. With the fallout from the COVID-19 global pandemic, gaps in skills needed for success in the culinary industry were identified. Additionally, the program, with guidance from the advisory committee and administration, opted out of maintaining accreditation by the American Culinary Federation. This allowed the program more academic freedom to modernize the curriculum and meet both the needs of our students and the industry.
- II. Overview of Dual Enrollment Opportunities
 - a. The program does not currently have any dual enrollment opportunities. However, there are articulation agreements for high school students completing a culinary CTE program. Students receive nine credits towards the Culinary Arts AAS degree. Philabundance Community Kitchen graduates also receive ten credits towards the Culinary Arts AAS degree.
- III. Outreach and enrollment
 - a. Enrollment increased by nearly five percent from spring 2019 to fall 2019 from 119 to 124. However, the following fall semester saw a thirty percent decrease in enrollment (thirteen graduates in 2020). That semester all culinary courses were online and students were not able to cook at all. Proposals to send items to students or provide an option for students to pick up were denied by administration due to concerns about equity for students who were housing insecure or may not have consistent access to a kitchen. Enrollment has continued to decline, albeit at a slower rate than the initial fall 2020 drop and is consistent with the enrollment decline across the College. Spring 2021 enrollment was 70 students (eleven graduates in 2021) and enrollment increased by ten percent for the fall 2021 semester (77 students).
 - b. While outreach has been a challenge over the past two years, the program continues to work with local high schools and workforce development programs. School visits began again in 2021-2022 with the department head, Dr. Lynsey Madison, and assistant professor Chef Andy Marin going to different high schools in the district to talk about the program and career options. Recruitment events

held in collaboration with the Business Leadership, Fashion, & Hospitality department were also held. Attendance at events has been varied for a multitude of reasons and the program, in conjunction with the department, continue to adjust strategies and approaches. A representative from the program also serves on the Gratz OAC committee. The program also works with Philadelphia Academies, PHLCVB – Diversity, Greater Philadelphia Hotel Association, Pennsylvania Restaurant & Lodging Association, and Skal Association. Current workforce development collaborations include Philabundance Community Kitchen (PCK), Careers through Culinary Arts Production (C-CAP), and Philadelphia Opportunities Industrialization Center (OIC).

IV. Lessons Learned

- a. Retention and completion have been a significant challenge for the program. The number of graduates has decreased by more than fifty percent since 2019. Changes in the programs vision, reduction of credits, and an emphasis on management skills should provide a solid foundation for growing the program back. Emphasis has been placed on quality assessment and consistent assessment across courses, regardless of who is teaching. The 2021-2022 curriculum revisions provide stronger guidance for assessment.
- b. Instructor quality is important in retention. Students who started their culinary foundational courses online in fall 2020 are significantly less developed in their skills and professional behavior in the kitchen. Instructors must reinforce behaviors and skills while continuing to incorporate additional skills.

V. Future Plans

- a. The program continues to focus on outreach and connecting with high schools in the area. On-campus visits both at CCP and on-site are planned throughout the 2022-2023 academic year with C-CAP, Youth Build Philadelphia, and Philabundance. These events are in addition to department events focused on student recruitment and retention.
- b. To increase retention, working with local associations to create mentoring opportunities and capitalizing on scholarship opportunities will be a key strategy.