# Community College of Philadelphia

The Path to Possibilities.

# STUDENT OUTCOMES COMMITTEE OF THE BOARD OF TRUSTEES

Thursday, October 2, 2014 1:30 p.m. Room M2-34

# AGENDA

- (1) 1:30 p.m. Executive Session
- (2) Public Session

(a) Approval of the Minutes of September 4, 2014	(A)
(b) Enrollment Update	(1)
(c) Middle States Update	(1)
(d) Academic Audit Schedule	(1)
(e) Computer Information Systems Academic Audit	(A)
(f) Achieving the Dream – Leader College Recognition	(1)

# **Attachments:**

Minutes of September 4, 2014 Academic Affairs:Plan for MSCHE Compliance Academic Program Audit: Computer Information Systems - Information Technology and Network and System Administration Proficiency Certificate Letter - 2014 Leader College Notification - Community College of Philadelphia

# STUDENT OUTCOMES COMMITTEE OF THE BOARD OF TRUSTEES

# MINUTES Thursday, September 4, 2014 1:30 p.m. – Room M2-34

Presiding:	Stacy Holland
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**Present:** Mr. Mark Edwards, Dr. Judith Gay, Dr. Donald Generals, Dr. Samuel Hirsch, Mr. Chad Lassiter, Dr. Judith Rényi, Ms. Jill Weitz (Executive Session only)

Guests: Dr. Mary Anne Celenza, Mr. John Moore

# (1) **Executive Session**

There was a discussion about personnel issues and student issues.

#### (2) Public Session

a) Approval of Minutes of June 5, 2014 (Action Item)

The minutes were accepted.

## b) Academic Program Audit - Engineering (Action Item)

Mr. Moore reviewed the Academic Program Audit of the Engineering Program. The program has potential for growth and faculty have made curricular changes over time; however there are a number of program issues including enrollment, retention and the failure to complete assessment of program learning outcomes. Board members discussed the enrollment issues. They agreed that the faculty need to aggressively work on an agreement with Drexel; work on an alternative senior year with a school like Carver; recruit heavily to diversify the enrollment. Board members also discussed the issues with assessment. Dr. Generals stated that the program faculty need to expand the scope of their assessment.

Dr. Celenza informed the Student Outcomes Committee members of the new student club for women, the Society for Women in Engineering.

Action: The Student Outcomes Committee of the Board agreed to recommend approving the audit with amendments to include a strategy to increase enrollment, explore K-12 partnerships, ensure seamless transfer to four-year institutions, and diversify the program. The Committee agreed to recommend requiring an update in one year.

(c) Academic Program Audit: Management of Computer Information Technology (Action Item) Mr. Moore reviewed highlights of the audit of the Management of Computer Information Technology Program (MCIT). Students in the program perform well academically and there is growth potential based on the field; however, the program has multiple issues including: low enrollment; lack of leadership and support; failure to complete assessment of program learning outcomes; failure to complete a technology plan. Faculty in the division are discussing creating a certificate rather than having a degree. Students can transfer without an MCIT specific degree. Board members asked about the steps the College takes to accommodate students when a program is closed. Dr. Gay explained how the College works to ensure students are informed of the decision and have the best option developed for them.

Action: The Student Outcomes Committee of the Board agreed to recommend recommends that the Board of Trustees accept the audit with the amendment that the program be closed and the department work to create a certificate for students interested in management.

## (d) Academic Program Audit: Middle States (Discussion)

Dr. Gay described the steps the College is taking to meet the requirements for the monitoring report required by the Middle States Commission on Higher Education by March 1, 2015. Steps the College has taken include: doing a triage of programs based on assessment progress with special meetings based on the triage; work with a consultant to develop an electronic repository for program assessment information; creation of a Curriculum Assessment Team (CAT) modeled after the College's successful Curriculum Facilitation Team; identification of faculty leadership for a Monitoring Report work group; increases in communication. The Student Outcomes Committee of the Board asked to have a presentation on program learning assessment at the Committee meetings. Dr. Generals suggested that the presentations be done by faculty members.

The meeting was adjourned.

#### Next Meeting:

The next meeting of the Student Outcomes Committee of the Board is scheduled for Thursday, October 2, 2014 at 1:30 p.m. in conference room M2-34.

#### **Attachments:**

Minutes of June 5, 2014 Academic Program Audit: Engineering Academic program Audit: Management of Computer Information Technology

# **Community College of Philadelphia**

**Academic Affairs** 

**Plan for MSCHE Compliance** 

(Fall 2014)

Goal I: Implement a documented & sustained assessment process in all programs that uses multiple measures of sufficient quality to provide direct evidence of student achievement of key learning outcomes.

Complete a triage of programs based on compliance status (August):

- 1. Tier 1: Completed the cycle of assessment of program learning outcomes with direct evidence
- 2. Tier 2: Partial completion of assessment of program outcomes with direct evidence
- 3. Tier 3: No evidence of completing cycle of assessment of program learning outcomes

Create electronic repository for information management (August-December)

- 1. Engage consultant to create information management system (September)
- 2. Work with ITS for support (September)
- 3. Create Implementation Team with faculty and administrators (September)
- 4. Identify future trainers (September)
- 5. Train the trainers (December)
- 6. Assist programs with loading information (December-February)

Increase communication:

- 1. Faculty/Staff updates in *Academically Speaking@CCP* (Monthly starting in September)
- 2. Program faculty meetings by Tier (Tier 3 September; Tier 2 September; Tier 1 October)
- 3. Students Collaborate with Student Affairs (Fall 2014)
- 4. Cabinet meeting updates (Fall 2014/Spring 2015)
- 5. BOT meeting updates for Student Outcomes Committee of the Board (Fall 2014/Spring 2015)

Develop initial plan for Tier 1 programs (September)

- 1. Identify responsible person to load information into system (October)
- Provide training for faculty/administrators/staff on using the system (December/January)
- 3. Load information in system (December-February)
- 4. Validate information (February)
- 5. Encourage ongoing compliance (March)
- 6. Communication
  - a. Letter following PD week September/October
  - b. Potential \visit to department meeting TBD (deans recommend)

Develop initial plan for Tier 2 programs

- 1. Identify responsible person to load information into system (October)
- 2. Provide training for faculty/administrators/staff (December/January)
- 3. Identify gaps in information (October)
- 4. Identify steps to close gaps (October)
- 5. Communication:
  - a. Letter to faculty following PD week
  - b. Tier 2 meeting (September)
  - c. Potential visit to department meeting TBD (deans recommend)

Develop initial plan for Tier 3 programs

- 1. Letter to program faculty identified by deans (August)
- 2. Meeting during PD week (8/27/14)
- 3. Visits to individual departments based on request from dean (TBD)
- 4. Support team identify resources, supports (August)
- 5. Identification of outcomes to assess for Fall
  - a. Identify outcomes and communicate to faculty (September)
  - b. Document decision (September)
  - c. Schedule follow up meetings to check in (October)
  - d. Meet to discuss outcomes and next steps end of semester (December)
  - e. Start implementation of next steps (January)
- 6. Identify person responsible to load information into system (October)
- 7. Provide training for faculty/administrators/staff (December/January)

Goals II: Document steps taken to promote a culture of assessment, including evidence of support and collaboration among faculty & administrators in assessing student learning & responding to assessment results.

Create a small team for Monitoring Report

- 1. Draft charge (August)
- 2. Identify co-lead (August)
- 3. Identify team members (September)
- 4. Provide support and materials (Fall 2014)

Create Curriculum Assessment Team (CAT) using CFT model (September 2014)

- 1. Draft Mission (September)
- 2. Identify leads (September)
- 3. Identify team members (September)
- 4. Provide support & materials (Fall 2014)

Continue professional development

- 1. Engage Office of Professional Development (September/October 2014)
- 2. Engage Faculty Center for Teaching and Learning (September)
- 3. Include in New Faculty Orientation (September)
- 4. Boot camps (Fall 2014)

Seek Agreement from Federation (Fall 2014)

Increase communication

- 1. Ensure periodic communication (ongoing)
- 2. Create visual of progress (October 2014)
- 3. Use existing sources of communication (e.g. Academically Speaking @CCP)

Reorganize to include Institutional Research (IR)

- 1. Draft staffing plan (September 2014)
- 2. Draft budget (September 2014)
- 3. Prioritize agenda for IR (September 2014)

Prioritize agenda for Office of Academic Assessment (September 2014)

Add temporary staff to support Office of Academic Assessment (September 2014)

Change job descriptions to include assessment (September 2014)

Update guidelines (Fall 2014)

Include meeting documentation in assessment repository (Fall 2014)

Update Academic Affairs website (December 2014)

# Goal III: Document evidence that student learning assessment information is shared & discussed with appropriate constituents & is used to improve teaching & learning.

Create repository of evidence (e.g. meeting notes, plans, etc.) including:

- Departments/Programs
- Cabinet
- Academic Affairs Council
- Board of Trustees
- Advisory Committees
- Students ?

Add students (and others) to cycle for communication (Fall 2014)

Ensure course and program revisions are based on evidence (add to guidelines)

#### Report

Compile Evidence – Fall 2014

Draft Report – February 2

Report Review – college community through Feb 16

Finalize Report – February 20-24

Submit Report – February 25

Community College of Philadelphia

Academic Program Audit:

Computer Information Systems - Information Technology and Network and System Administration Proficiency Certificate

#### I. Executive Summary

The Computer Information Systems – Information Technology AAS program is a moderately sized program (about 250 students) that has had growth over the past five years (25%). The program prepares students to enter the workplace as computer support technicians with skills in networking, hardware and software maintenance, and database management. The program's students are graduating at a higher rate than the rest of the College, but indicate they have gained less in several aspects than their peers. Of particular concern are indications that they feel less prepared for continued intellectual growth after college and the ability to relate to others. Many of the jobs in the field require professionals to continually stay abreast of current trends in the field and respond to constantly changing software and hardware requirements. These same professionals are also required to interact with a large number of people in the regular administration of their jobs meaning those who feel less prepared to do so may struggle to advance their careers.

Degree inflation in the field has meant more and more students will need a Bachelor's degree to be competitive in the job market. So while the traditional focus of an AAS program is on job placement, transfer agreements are becoming more important. Some of our larger transfer partners (Temple and Drexel) have recently stopped accepting for transfer some CIS courses (in favor of the higher perceived rigor of CS courses) and the program currently has no program to program articulation agreements (although there is one being negotiated with Peirce). This is of particular concern and presents a clear threat to the continued long term viability of the program if it is not resolved.

Assessment of Student Learning Outcomes, which has been historically problematic has recently (2013) made strong advances—all courses offered since Fall 2013 have been assessed and now that this base has been established, Program SLOs are on track to be completed in the next year.

Faculty in the program have noted that software/hardware costs have made some courses financially challenging to offer online. Even on campus, limitations on administrative rights to online lab computers restrict what students can do within the context courses (e.g. the time needed to reconfigure computers for specific assignments and students' lack of ability to download and install software on campus computers), and although work-arounds have been used for each of these, they are not seen as ideal.

Recommendations generally focus on the need for the program to keep pace with the field and ensure that delivered courses and experiences continue to meet the needs for students in immediately upon graduation and as their careers develop.

#### II. The Program

The Computer Technologies Department's Information Technology curriculum is designed for those wishing to earn an associate's degree in the foundations of modern information technology. This program provides students with a core of general education and computer information systems courses coupled with a flexible set of elective requirements. Students who complete the program will enter the job market as computer specialists who have a solid foundation in the areas of computing most important in today's workplace—including PC operating systems, common applications software, data communications and networking, database management systems, computer programming, and systems analysis and design.

Elective courses beyond the core may be chosen to develop specialization in a selected area or to obtain a broader understanding of certain computer technologies and how they fit together.

The courses in the Network and Systems Administration Proficiency Certificate (NSPC) are closely linked to professional certification from Comp TIA and Microsoft, and engage students in both the development of technical skills needed to support and maintain computer networks, and the application of analytical skills needed to analyze and manage computer networks. When completed, the courses may be applied to the Computer Information Systems Information Technology Associate in Applied Science Degree or the Management of Computer Information Technology Associate in Arts Degree.

#### A. Brief history of the program

The roots of the CIS-IT curriculum go back to 1967 when the Data Processing Curriculum leading to the Associate in Applied Science (A.A.S.) degree was initiated by faculty. The Data Processing Program provided two options: Business Programming Option and PC Applications Option. Micro-computing was introduced into the Department's curriculum in 1979 and, following completion and approval of the 1987 Data Processing Department Audit, the Department name was changed to Computer Studies and a Computer Science Curriculum was approved by the College.

Following the recommendations of the 1996 Audit the Data Processing curriculum was completely revised. The curriculum name was changed to Computer Information Systems to better reflect industry trends and the goals of the curriculum. Course names were changed from DP to CIS.

Also based on the recommendations of the 1996 audit, the Local Area Network (LAN) and Internet Operations Options were added in 1998. Each program Option had its own unique set of degree requirements. The CIS curriculum was revised again in 2004. This revision introduced a set of core general education courses, a set of core computer courses and a set of elective computer courses. The general education requirements and the core computer courses were consistent across all Options. The IT Option was first introduced as part of this revision. The current Computer Information System – Information Technology program (CIS-IT) as it exists today, was introduced in 2008 and coincided with the closure of the other four options.

# B. Course Sequence

Course Number and Name	Pre- or Corequisites	Credits	Gen Ed Req.
irst Semester			
ENGL 101 - English Composition I		3	ENGL 101
OA 102 - Keyboarding -or-		1-3	
OA 110 - Professional Keyboarding		1-2	
CIS 103 - Applied Computer Technology	ENGL 101 ready	3	Tech Comp
CIS 106 - Introduction to Computer Programming		4	
CIS 105 - Computer Systems Maintenance		4	
econd Semester			
MATH 118 - Intermediate Algebra or above		3	Mathematics
ENGL 102 - The Research Paper	ENGL 101 (C or better)	3	Info Lit
CIS 150 - Network Technology		4	
MATH 121- Computer and Logic -or-	MATH 163: MATH 161		
	(C or better) or MATH	3-4	
MATH 163 - Discrete Math	162		
CIS 205 - Database Management Systems	CIS 103	4	
hird Semester			
CIS or CSCI Elective <sup>1</sup>		3-4	
Natural Science Elective		3-4	Nat Sci
CIS or CSCI Elective <sup>1</sup>		3-4	
CIS 270 - Systems Analysis and Design	CIS 205	4	
CIS or CSCI Elective*		3-4	
ourth Semester			
Social Science Elective		3	Soc Sci
Humanities Elective		3	Humanities
CIS or CSCI Elective <sup>1</sup>		3-4	
CIS or CSCI Elective <sup>1, 2</sup>		3-4	

# Minimum Credits Needed to Graduate: 60-69<sup>3</sup>

<sup>1</sup> CIS 100 and CIS 104 are for non-majors and do not count toward degree.

<sup>2</sup>15 total credits of CIS and/or CSCI electives are needed.

<sup>3</sup> All General Education requirements are met through required courses except for the Writing Intensive, Interpretive Studies, and American/Global Diversity requirements.

# C. Curriculum Map

	-									
	Program student learning outcomes									
Courses	Use technology effectively to communicate and analyze information related to computer information systems.	Work as a part of a professional team to analyze, design and implement computer information systems.	Install, configure and maintain computer information systems, including the system's operating system and common computer hardware and software.	Demonstrate a broad knowledge of computer information systems terminology and practices, including those related to networking and data communications technology.	Effectively use word processing, spreadsheet, presentation graphics and database management software in a professional office environment.	Design and implement a relational database.	Develop solutions to common programming problems using the structured sequential logic of computer programming languages.			
OA 102 - Keyboarding or OA 110 - Professional Keyboarding	Introduced				Introduced					
CIS 103 - Applied Computer Technology	Introduced				Mastered					
CIS 106 - Introduction to Computer Programming		Reviewed					Introduced Mastered			
CIS 105 - Windows Professional Operating System	Reviewed	Reviewed	Introduced Mastered							
CIS 150 - Data Communications	Reviewed	Reviewed		Introduced Mastered						
CIS 205 - Database Management Systems	Reviewed					Introduced Mastered				
CIS 270 - Systems Analysis and Design	Reviewed	Mastered								

## D. Future directions for the program and the field

The field of Information Technology continues to grow as the computer become more ingrained in every area of society and our lives. In this field, it is important to keep pace with changes in technologies in the field. Examples of this are the development of Cloud Technology and the sudden prevalence of programming for mobile devices. A career in this field requires lifelong learning skills. Programs that educate future CIS workers also need to stay current with technologies to ensure students are ready to move into the workforce.

#### III. Profile of Faculty

Courses in the CIS curriculum are taught by both full-time and adjunct faculty. It is the philosophy of the Department to have each faculty member have an area of expertise in the curriculum. The following chart shows how courses in the curriculum are covered.

Generally, the Department has emphasized professional development and participation in professional organizations, especially for full-time faculty. As a result, most full-time faculty in the Department have regularly participated in in-house training and in conferences sponsored by professional organizations and publishers, to further enhance their skills and knowledge in the discipline.

While faculty are active within their own arenas, there is minimal evidence that program faculty take on roles in coordinating program management as a team or unit.

#### A. Program Faculty

Courses Taught	Resume
CIS 140, CIS 230, CIS 231	Y
CIS 106, CIS 203, CIS 270	Y
CIS 205, CSCI 111, CSCI 112	
CIS 106, CIS 215	
CIS 205, CSCI 111	Y
CIS 202, OA 254	Y
CIS 105, CIS 150, CIS 256, CIS 257	Y
Courses Taught	Resume
	Resume
	Y
CIS 105, CIS 150	Ŷ
8	
3	
6	
6	
1	
1	
	CIS 140, CIS 230, CIS 231 CIS 106, CIS 203, CIS 270 CIS 205, CSCI 111, CSCI 112 CIS 106, CIS 215 CIS 205, CSCI 111 CIS 202, OA 254 CIS 105, CIS 150, CIS 256, CIS 257 Courses Taught 0 CIS 270 CIS 105, CIS 150 8 3 6 6 1

#### B. Engagement of program faculty in curricular matters

**Edward Baker** developed and maintains the Management of Computer Information Technology (MCIT) curriculum. He serves as coordinator for that curriculum. His area of expertise includes HTML5, Dreamweaver, JavaScript and Desktop Publishing.

**Joewana M. Freeman** is currently serving as the chair of the CT Department. Her area of expertise is Project Management, Computer Programming and Excel.

**Donald J. Friel,** until recently, worked in Academic Computing where he supported faculty and Department web pages. He has brought that expertise to the CT Department. His area of expertise is HTML5.

**Charles Herbert** has served as a chair of the CT Department chair. He, along with Craig Nelson, serves as coordinator for the Computer Science curriculum.

**Daniel R. Melamed,** until this year served as Chair of the Department. His expertise is in Computer Programming in both the CIS and Computer Science curriculums.

**Craig Nelson,** along with Chuck Herbert, serves as coordinator for the Computer Science curriculum. He is currently a member of the College's Technology Coordinating Committee.

Joanne S. Patti serves as organizer for the Department's annual "Meet and Greet".

**Robert O. Spencer** serves as coordinator for Networking component of the CIS curriculum. His area of expertise is Windows Server, Data Communications and CISCO Networking.

#### **IV. Program Characteristics**

#### A. Student Profile

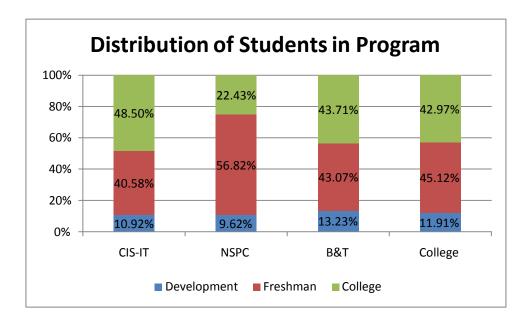
The program has experienced small growth in the past five years (almost 30%). There is a greater percentage of males (74%) in the program than in the College (35%) or the Division (54%). Students in the certificate are more likely to be older and part time (Table 2). The proficiency certificate has a number of students enrolled (averaging 6 over the past five years). When creating the tables for this audit, it was noted that there are still a number of former CIS options that have not admitted students since 2006. Students in these programs, who total about 40, should be transferred into the CIS program for ease of program management and to ensure consistency with the College catalog.

# Table 1. Headcounts

		Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5 Year Average	5 Year Change
CIS-IT	Headcount	289	320	321	336	374	328	29%
05-11	FTE Headcount	214	228	235	243	264	237	23%
Network & System	Headcount	2	12	0	6	10	6	
Administration (PC)	FTE Headcount	1	8	0	2	7	4	
Business &	Headcount	3,073	3,167	3,246	3,160	3,286	3186	7%
Technology	FTE Headcount	2,288	2,358	2,372	2,324	2,378	2344	4%
College	Headcount	19,047	19,502	19,752	18,951	19,263	19303	1%
College	FTE Headcount	13,360	13,697	13,681	13,112	13,106	13391	-2%

# Table 2. Demographics

Demographics: Running 5 Year Average									
		Business and							
	CIS-IT	NSPC	Technology	College					
Female	26.1%	48.5%	45.8%	64.0%					
Male	74.8%	68.7%	53.9%	35.6%					
Unknown	0.5%	0.0%	0.3%	0.4%					
Native American	0.4%	0.0%	0.5%	0.5%					
Asian	10.9%	6.2%	10.6%	7.2%					
African American	47.8%	48.4%	48.2%	48.6%					
Latino/a	8.1%	0.0%	5.3%	5.4%					
White	20.6%	7.8%	21.3%	24.9%					
Other	2.8%	4.7%	3.9%	3.4%					
Unknown	9.4%	21.8%	10.2%	9.9%					
16 – 21	30.8%	3.1%	35.2%	32.5%					
22 – 29	37.9%	17.7%	38.4%	36.6%					
30 – 39	15.1%	10.9%	14.6%	17.0%					
40 +	15.3%	57.2%	11.1%	13.0%					
Unknown	1.4%	0.0%	0.9%	0.9%					
Full Time	34.5%	4.5%	37.6%	31.2%					
Part Time	65.5%	84.4%	62.4%	68.8%					
All Developmental Some	27.6%	24.8%	30.9%	28.3%					
Developmental	50.1%	1.8%	50.0%	43.9%					
College Level	22.4%	18.8%	19.0%	27.8%					



#### **B. Student Outcomes**

Students in CIS-IT are performing, academically, like many other students in the College with one important exception – students are more likely to depart as a graduate (41%) than students in the division (13%) or the College (10%). They are also more likely to depart unsuccessfully (41% vs. 36%). However, graduates report smaller self-reported gains in a number of areas, when compared to the student body at large: self confidence, understanding of diverse cultures, interpersonal skills, leadership, continued personal growth, and effective speaking were all significantly lower in the CIS program than in the College. Many of these skills are important for long term career success. It is important to note that even though students are lower than the College, the average ranking for these scores is still above a 2 ("Some Progress") on a zero to three scale. (Table 5)

# Table 3. Outcomes Data: 5 Year Averages

		l			
		CIS-IT	NSPC	B&T	College
	Good Standing	84.6%	75.4%	82.3%	85.0%
Standing	Probation	13.7%	11.1%	15.7%	13.5%
	Dropped	1.7%	2.3%	2.0%	1.6%
	Returned/Same	66.7%	50.0%	64.8%	65.8%
Fall-Spring	Returned/Different	3.5%	0.0%	6.1%	5.2%
Retention	Graduated	3.5%	19.4%	3.0%	2.1%
	Did Not Return	26.3%	30.6%	26.2%	26.9%
	Returned/Same	41.6%	27.8%	37.0%	36.7%
Fall-Fall	Returned/Different	6.4%	0.0%	8.6%	8.6%
Retention	Graduated	10.7%	19.4%	9.4%	8.4%
	Did Not Return	41.3%	52.8%	45.0%	46.4%
	Graduated	41.6%	19.4%	13.4%	10.0%
Success at	Long Term Success	6.4%	41.7%	34.4%	36.2%
Graduation	Short Term Success	10.7%	36.1%	13.3%	17.2%
	Unsuccessful	41.3%	2.8%	38.8%	36.6%
Course					
Outcomes	GPA	2.71	3.82	2.56	2.65

Figure 2: Degrees Awarded

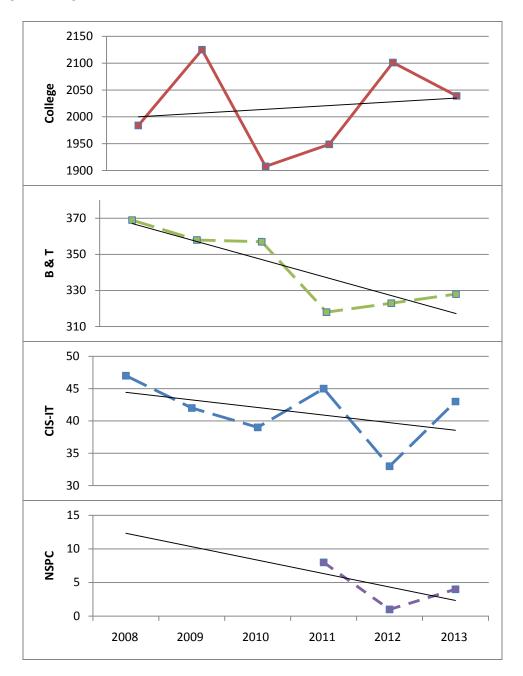
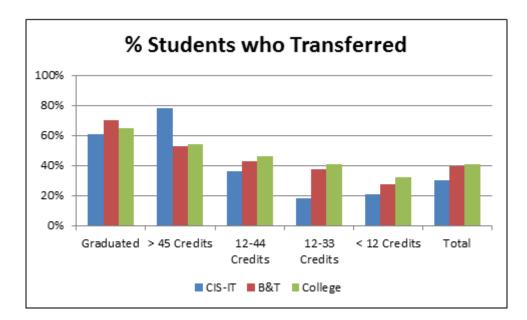


Table 4: Time to Degree<sup>1</sup>

Median Statistics for Frogram Graduates								
	CIS-IT	B&T	College					
Years to Degree	4.7	4.1	4.7					
Credits Attempted	92	87	85					
Credits Earned	72	68	68					
GPA	3.12	3.12	3.08					

# Median Statistics for Program Graduates

Figure 3. Transfer by Departure Status<sup>2</sup>



<sup>&</sup>lt;sup>1</sup> Students with no prior enrollment in U.S. higher education who graduated in academic year 2012-2013 with only one Associate's degree.

<sup>&</sup>lt;sup>2</sup> Fall 2005- Fall 2010 Cohorts

# C. Student Surveys

Surveys are on a scale from 0 "No Progress" to 3 "Considerable Progress."

Table 5: Student Alumni Survey

Please indicate the level of progress you made at CCP in the following		am	Divisi	on	College	
areas of knowledge, skills, and personal development	Mean	Ν	Mean	Sig.	Mean	Sig.
Enhanced Ability to Express Myself Artistically	2.14	64	2.18		2.22	
Developed Meaningful Career Goals	2.48	64	2.46		2.53	
Developed into a more Informed Citizen	2.42	64	2.49		2.52	
Improved Preparation for Active Participation in Community Activities	2.03	65	2.18		2.24	
Using Computing and Internet Technology	2.62	65	2.53		2.48	
Enhanced Self-Confidence	2.28	64	2.46		2.48	*
Enhanced Understanding of My Own and Different Cultures	2.22	64	2.43	*	2.47	**
Improved Self-Discipline	2.36	64	2.49		2.53	
Acquiring a Broad General Education	2.49	65	2.54		2.58	
Developed Interpersonal Skills and the Ability to Relate to Others	2.35	65	2.47		2.53	*
Improved Leadership Abilities	2.12	65	2.36	*	2.40	**
Solving Numerical Problems	2.25	64	2.41		2.33	
Working Effectively with Others	2.31	64	2.49		2.51	*
Preparation for Continued Personal and Intellectual Growth after College	2.32	63	2.53	*	2.58	**
Understanding People of Other Racial and Ethnic Heritage	2.41	63	2.47		2.50	
Improved Self-Reliance	2.44	63	2.49		2.52	
Speaking Clearly and Effectively	2.27	63	2.49	*	2.49	*
Thinking Critically and Analytically	2.48	64	2.60		2.60	
Contributing to the Welfare of my Community	2.10	63	2.18		2.24	
Writing Clearly and Effectively	2.58	65	2.56		2.58	

\* p < .1, \*\* p < .05, \*\*\* p < .01

#### V. Learning Outcomes and Assessment

#### A. Program Student Learning Outcomes:

Upon completion of this program graduates will be able to:

- Use technology effectively to communicate and analyze information related to computer information systems.
- Work as a part of a professional team to analyze, design and implement computer information systems.
- Install, configure and maintain computer information systems, including the system's operating system and common computer hardware and software.
- Demonstrate a broad knowledge of computer information systems terminology and practices, including those related to networking and data communications technology.
- Effectively use word processing, spreadsheet, presentation graphics and database management software in a professional office environment.
- Design and implement a relational database.
- Develop solutions to common programming problems using the structured sequential logic of computer programming languages.

#### **B. Outcomes Assessment**

For the Fall 2013 semester, assessment forms were distributed to all instructors for all sections taught. Student Learning Outcomes (SLOs) have been developed for all courses. Plans are to assess each course after it is taught. These assessments have been completed for all courses that have been offered in the past two semesters except CIS 105, which is slated for assessment this semester (this addresses the low quality scores in Table 6). Program SLOs are scheduled to be assessed during the coming year. The low viability scores stem from the small percent growth of the program and slight declines in the number of graduates.

#### **C. Advisory Committee**

The Computer Technologies Department has an active Advisory Committee (AC), comprised of faculty from local institutions and individuals from a variety of industries. Members of the Department attend Committee meetings in order to inform the committee of the program's activities and get guidance on future directions.

#### D. Quality/Viability Indicators

Scores have been low, particularly in quality—this has primarily been the result of a lack of assessment. However, all currently offered courses have since been assessed and the program SLOs are on track to be completed within the year.

	2012	2013
Quality Indicator Score (0-4)	2	0
Viability Indicator Score (0-4)	2.69	1.6

#### **VI.** Resources

The Computer Information Systems – IT course offerings are primarily located in the Center for Business and Industry (CBI) Building on the main campus. This space consists of seven computer classrooms – C3-08, C3-10, C3-12, C3-14, C3-15, C3-18 and C3-20. All CIS classes require a classroom with a full podium, individual student computer workstations, Internet connectivity and in-room printing. These requirements are necessary because all CIS courses are part lecture and part lab. During the lecture part of the class, the instructor explains concepts and describes the skills. Even though the instructor is leading, the student is using the computer to follow along. During the lab part of the class, the student practices the skills in class with the instructor available to provide support. Recently, because of a shortage of classrooms with computers, CIS classes have been scheduled in other classrooms.

Several CIS courses require installed software that is unique to that course, computer programming software, for example. Working with Academic Computing and ITS, the unique software is installed in one of the CIS classrooms. All of the CIS courses require access to the Internet and the ability to download data from the Internet. The ability to download data from the Internet to the classroom computer can be problematic.

Several CIS courses could benefit from the ability to download and install software from the Internet for use in class as part of a lesson. The current configuration of classroom computers does not provide for that capability. For the Networking classes which require installation of alternate software, two class rooms are equipped with removable hard drives.

There are CIS courses that required space on the College's web server for storing student's Web pages. A process has been developed to facilitate this capability. Most of the CIS classes require unique computer set-up. Reconfiguring the computer at the beginning and end of each class session can impact instruction. Because of the unique software requirements of CIS courses, designated machines in the Student Lab in C3-17 have the software installed. The requirement to acquire expensive software for a few of the CIS courses has had a negative impact on our ability to put these courses online. Hardware/software requirements for CIS courses change as standards in the industry change.

#### VII. Demand and Program Management

The job outlook for the Information Technology field remains above average and these jobs are on the PA High Priority Occupation list. Despite the fact that jobs in this field are in demand, in the Greater Philadelphia area, all of the jobs, with the exception of Customer Support Specialists and Web Developers, require a Bachelor's degree. Even though the program, as an AAS, is not a 'transfer' program, this has made transfer opportunities a potential concern for the program: Temple and Drexel have stopped accepting some courses from the CIS program, and while Peirce accepts CCP courses, there is no formal transfer agreement for the program. Faculty and the Assistant Dean are actively working with all three institutions to solidify some agreements. There are, however, 14 additional colleges in the region that offer Bachelor's level programs in CIS. These could also be explored as options for transfer opportunities if a student decides to continue their education.

The program also has potential for linkages to High School programs. According to the Pennsylvania Department of Education, Bureau of Career and Technical Education has indicated that students who successfully complete the any of the following School District of Philadelphia Career and Technical Education Programs of Study:

Computer Systems Networking and Telecommunications Computer Technology/Computer Systems Technology Communications Technologies/Technicians & Support Services may receive <u>11 credits</u> for the following CIS courses that may be applied to the CIS-Information Technology AAS Degree which may be applied as the following courses: CIS 103 - Applied Computer Technology (3 cr.)

CIS 105 - Computer Systems Maintenance (4 cr.)

CIS 150 - Network Technology (4 cr.)

With this agreement in place, the CIS program has the potential to make important pipeline connections to local high schools. This would provide opportunities for students there to transfer more easily to CCP and could increase the number of students in the CIS program.

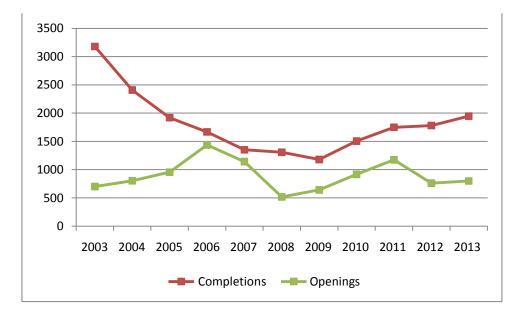


Figure 4: Regional Program Completions and Industry Openings

Table 7: Growth and Salaries for Industry Careers

	Growth 2010-	Mean Annual	Degree
Job Title	2020	Salary	Reqs
Computer Information Systems Managers	15%	\$120,950	Bachelors
Computer Networks Architects	15%	\$91,000	Bachelors
Computer Systems Analysts	25%	\$79,680	Bachelors
Network Administrators	12%	\$72,560	Bachelors
Web Developers	20%	\$62,500	Associates
Computer Support Specialists	17%	\$48,900	Associates
All Jobs	14%		

# Table 8: Philadelphia Area HPO List

## 2014 High-Priority Occupations for Philadelphia County Workforce Investment Area

Source: Center for Workforce Information & Analysis, Occupational Employment Statistics Survey (2013) and Employment Projections (2010-20)

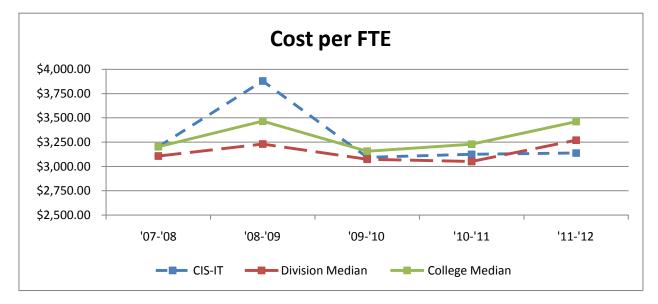
SOC Code	Occupation	Occupational Group	Educ. Attain.	Annual Average Wage	Annual Openings
15-1131	Computer Programmers	Computer/Math	BD	\$79,040	22
15-1150	Computer Support Specialists	Computer/Math	PS	\$50,910	73
15-1121	Computer Systems Analysts	Computer/Math	BD	\$88,190	52
15-1142	Network & Computer Systems Administrators	Computer/Math	BD	\$82,620	59
15-1132	Software Developers, Applications	Computer/Math	BD	\$92,760	21
15-1133	Software Developers, Systems Software	Computer/Math	BD	\$104,700	14

Source: http://www.philaworks.org/sites/philaworks.org/files/DRAFT%202014%20WIA%20HPO%20Lists.xlsx

#### **VIII. Operating Costs**

Costs for the program are in line with the College and Division.

Figure 5: Program costs per FTE



#### **IX. Findings and Recommendations**

1. Program SLOs must be completed. Although progress has been made, program level student learning outcomes remain to be assessed.

*Timeline:* One program SLO must be completed by end of Fall 2014. All program SLOS must be completed by end of Spring 2015.

*Persons Responsible:* Department Head, Program Faculty, Director of Academic Assessment and Evaluation (Curriculum Assessment Team Support)

2. Cultivate K-12 Pipelines. Students in certain Philadelphia School District programs could earn up to 11 credits at CCP while still enrolled in high school. Creating bridges to these students to cultivate their enrollment here is an important contribution to the Program, the School District and the City's mission for increased educational attainment.

*Timeline:* Outreach and planning completed by end of Spring 2015. *Persons Responsible:* Department Head, Assistant Dean.

3. Evaluation of student self reports. Students have indicated they may not be gaining the people and lifetime learning skills that they need to be successful over the long term in their field. The program should investigate this further and explore opportunities to bolster these skills in their students. This has the potential to require alterations to the program SLOs. Additionally there are some faculty concerns that lab limitations may mean that students are not able to practice (and therefore fully develop) certain important technical skills.

*Timeline:* Utilizing the advisory committee as well as student and alumni input the program should develop a list of skills needed to be a successful profession in the field focusing on both the technical and interpersonal areas. Once completed, this list should be compared to offerings in the program to identify shortcomings and areas where these can be shored up. A completed report with findings and proposed changes should be submitted by the end of Fall 2015.

Persons Responsible: Program Faculty, Assistant Dean.

4. Evaluation of Student Success. The CIS program has both a strong graduation rate and a large number of students who depart unsuccessfully. Both of these phenomena need to be better understood so that more students in the latter category can be converted to the former. The program, working with Assessment and Institutional Research should examine course taking patterns of their students (Perkins data may be particularly helpful in this regard) to better understand indicators that lead students to better successes or struggles.

*Timeline:* Report compiled with action items identified by end of Fall 2015. Implementation beginning Spring 2016. Follow-up report on gains Spring 2017. *Persons Responsible:* Department Head, Assistant Dean, Director Academic Assessment and Evaluation, Director Institutional Research. 5. There are still students enrolled in older, discontinued CIS options. These students should be contacted and transferred to the CIS-IT program.

Timeline: Completed by end Fall 2014.

Persons Responsible: Assistant Dean, Department Head.

6. There were some concerns among program faculty that student experiences in labs may not be limited by software and hardware issues. The program needs to develop a Technology Plan to assess their needs and course and program assessment materials to identify current shortcomings. Once completed, weaknesses may be addressed through the use of Perkins funds.

*Timeline:* Technology Plan and recommendations completed by Fall 2014. *Persons Responsible:* Program Faculty, Department Head.

7. The Network and System Administration Proficiency Certificate is quite small and the program should consider its continued viability. If there is no energy around attempting to grow the program, it should be closed.

*Timeline:* Report produced by beginning of Spring 2015 semester with recommendations for program continuation or closure. *Persons Responsible:* Program Faculty.

8. Given the changes in the CIS field, almost 40% of students who graduate transfer (despite the fact that the program is an AAS). The program needs to develop articulation agreements with local Bachelors programs to ensure students' long term success. There are 17 colleges within 20 miles of the CCP that have corresponding programs and could serve as potential transfer institutions for interested students. Students interested in transfer need to be advised by program faculty to take electives that will maximize transfer credits (particularly for institutions without program to program agreements).

*Timeline:* A progress report should be delivered by end of Spring 2015. Transfer informational materials created and distributed to students by end of Fall 2014. *Persons Responsible:* Assistant Dean, Department Head, Program Faculty



September 2014

Donald Generals President Community College of Philadelphia 1700 Spring Garden Street Philadelphia, PA 19130

Dear President Generals:

On behalf of Achieving the Dream, I would like to congratulate your college for being recertified as an Achieving the Dream Leader College. We are excited to recognize your commitment to improving student success and equity, and demonstrating measurable gains on important student success metrics over a three-year period. Leader Colleges embody the goal of Achieving the Dream: lasting change that helps more students achieve their goals.

Through the dedication to the core principles of Achieving the Dream – committed leadership, use of evidence to improve programs and services, broad engagement, systemic institutional improvement, and equity – your college has increased student achievement and made student success central to its mission. Congratulations on your accomplishments.

Around the nation, Achieving the Dream Institutions are raising persistence and graduation rates, closing achievement gaps, and changing lives. We are pleased to have you continue to serve as a national leader in the Achieving the Dream National Reform Network.

Sincerely,

Carol a. Lincoln

Carol A. Lincoln Senior Vice President

Cc: Judith Gay, Core Team Leader Samuel Hirsch, Core Team Leader Jacquelyn Belcher, Leadership Coach Jan Lyddon, Data Coach Carrie E. Henderson, Associate Director of Programs (Leader Colleges)

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