Community College of Philadelphia

STUDENT OUTCOMES COMMITTEE OF THE BOARD OF TRUSTEES

Thursday, May 7, 2015
1:30 p.m.
Room M2-34

AGENDA

(1) 1:30 p.m. Executive Session

(2) Public Session

(a) Approval of the Minutes of April 2, 2015 (A)

(b) 2015-16 Student Activities, Athletics, and Commencement Budget (A)

(c) Academic Audits:
- Construction Management A.A.S. (A)
- Facilities Management-Constructions A.A.S. and Facilities Management-Design A.A.S. (A)
- Computed Assisted Design Technology A.A.S. and Computer Assisted Design Technology Academic Certificate (A)

(d) Religious Studies A.A. Audit Update (I)

(e) CAHM Academic Audit Update (I)

(f) Accounting A.A.S. Audit Update (I)

Attachments:
Minutes of April 2, 2015
Budget Assumptions and Rationale for the Student Activities, Athletics, and Commencement for FY16 Budget
2015-16 Student Activities, Athletics, and Commencement Budget
Academic Program Audits: Construction Management A.A.S.
Facilities Management-Constructions A.A.S.
Facilities Management-Design A.A.S.
Computed Assisted Design Technology A.A.S.
Computer Assisted Design Technology Academic Certificate
Religious Studies A.A. Audit Update
CAHM Academic Audit Update
Accounting AAS Degree Audit Update

STUDENT OUTCOMES COMMITTEE OF THE BOARD OF TRUSTEES

MINUTES
Thursday, April 2, 2015
1:30 p.m. – Room M2-34

Presiding: Ms. Stacy Holland

Present: Mr. Mark Edwards**,** Dr. Judith Gay, Dr. Donald Generals, Dr. Samuel Hirsch, Dr. Judith Rényi, Dr. James Roebuck

Guests: Dr. Mary Anne Celenza, Dr. Gayle Dixon

(1) Executive Session

The Student Outcomes Committee Board members will recommend four faculty for promotion to Associate Professor.

The Student Outcomes Committee of the Board members will make a recommendation for an honorary degree.

(2) Public Session

a) Approval of Minutes of February 5, 2015 (Action Item)

The minutes were accepted.

b) Middle States Update

Dr. Gay gave a brief overview of the Middle States team visit and report, both identifying things that the team liked and things for continuing improvement. Dr. Rényi stated that there should be national benchmarks for every program, and faculty need to be able to articulate what the student will look like at the end of the process. Dr. Gay then identified next steps: the College will receive a draft report and have a chance to correct any errors of fact; a final report will be submitted to Middle States by the head of the Visiting Team; the College will have a chance to respond to that report. The Middle States Commission on Higher Education will act in June 2015.

c) Student Outcomes Dashboard – 2013/2014 Data

Ms. Holland stated that the discussion should not focus on the categories or the format since the current dashboard is the one approved by the Student Outcomes Committee (SOC) of the Board. She also stated that the College met or was close to the target in many of the categories. Finally, she mentioned that it would be helpful to see the variance reflected on the

dashboard. Dr. Gay reminded the SOC members that the targets in the dashboard were based on the Strategic Plan targets. Mr. Edwards stated that it would be helpful to see how the College data compares to peers. Dr. Generals stated that he would like to see how the data compares to the Aspen award elite. Dr. Rényi agreed that there should be aspirational goals, and if there are reasons beyond the control of the institution for not meeting targets, it should be reflected in a footnote. Dr. Generals said he plans to make changes in the targets. Mr. Edwards stated that the College has made a phenomenal start.

Dr. Rényi asked whether there should be something on the dashboard related to Standard 14. Ms. Holland stated that it would be helpful to know if the quality of instruction is good. She added that the dashboard needs to be concise while also being clear about what matters. Dr. Rényi agreed it should reflect the value added by the College. Dr. Generals stated that he would like to see outcomes of developmental education, including how many are raised out of developmental education; gaps for students of color; and general education/core competency outcomes.

Ms. Holland said there needs to be a space where the Board can see alignment between vision, strategy, and policy/finance. The dashboard should reflect what the president thinks is most critical.

d) Foundational Math

Dr. Gayle Dixon explained the steps that are being taken in the new department. The department is hiring new full time faculty for the next academic year. An intermediate algebra course will be taught in the department starting summer 2015. For fall 2015, there will be accelerated (7-week) courses so students can take 016/017 and 017/118 in one semester. Dr. Hirsch mentioned that the same accelerated pattern will be used for English courses. Mr. Edwards stated that he likes the flexibility but questioned how will we measure outcomes? Dr. Generals responded that no difference equals success.

Dr. Dixon stated that the faculty have revised the student learning outcomes for the foundational math courses and have streamlined the final exam. They are looking at other approaches to instruction. They are working on an NSF grant for K-14 connections. SOC members discussed wanting to know how the approaches chosen will result in better outcomes and how the faculty will use the results.

e) Academic Audits

Action: The Student Outcomes Committee of the Board agreed to recommend approving the Digital Forensics Program audit and recertifying the program for five years.

f) Recommendation to Discontinue Certificates

Action: The Student Outcomes Committee of the Board agreed to recommend that the following certificates be discontinued: Academic Certificate in Justice; Biotechnology Proficiency Certificate; and Biomedical Technician Training Proficiency Certificate.

g) Accounting AAS Degree Audit Update

Postponed until the May meeting.

The meeting was adjourned.

Next Meeting:

The next meeting of the Student Outcomes Committee of the Board is scheduled for Thursday, May 7, 2015 at 1:30 p.m. in conference room M2-34.

Attachments:

Minutes of February 5, 2015
Digital Forensics Audit Summary
Student Outcomes Dashboard
Academic Program Audit: Digital Forensics A.A.S.
Summary Recommendations to Discontinue Certificates
Recommendation to Discontinue the Academic Certificate in Justice
Recommendation to Discontinue the Biotechnology Proficiency Certificate
Recommendation to Discontinue the Biomedical Technician Training Proficiency Certificate
Accounting AAS Degree Audit Update

Budget Assumptions and Rationale for the Student Activities, Athletics, and Commencement Budget for the Fiscal Year 2016

Below are issues and rationales for various budgeting criteria for creating the Student Activities, Athletics, and Commencement Budget for the Fiscal Year 2016.

Revenue Sources (FY16 Proposed) ***(FY15 Approved)***

- General College Fee: $1,550,550 (1% increase over FY15)
- Revenue from Activities: $150,000 (3.4% increase over FY15)
- Net Profits from Bookstore/Cafeteria: $694,275 (7.9% increase over FY15)
- Commencement Support: $57,000 (0% increase over FY15)

- Net **increase** of $72,825 over FY15 Approved (3%)
- Net **increase** of $58,262 over FY15 Revised (2.4%)

Budget Lines

Percentages	Guidelines	FY14	FY15
Student Publications	10%	10.4%	9.2%
Campus Programming	15%	14.5%	11.8%
Performing Arts	5%	3.1%	2.6%
Student Support	15%	17.0%	15.4%
Student Lead./Involv.	15%	15.0%	21.0%
Athletics	35%	35.3%	35.0%
Contingency	5%	5.0%	5.0%
	100%	100.0%	100.0%

Individual Budget Lines

A projected increase of $72,825 in FY16 Projected Revenue compared to FY15 Approved Budget; an overall increase in Staff costs of $53,500; and level funding in the Child Care Center contingency, a small decrease in First Year Student Support; and a small increase in Commencement budgets, the FY16 programming budget lines have an additional $35,328 (4.2%) over the FY15 programming budget. ($798,000 available in FY15; $833,325 available in FY16)

Staff (53.4% of funds; up from 52.8% in FY15)
(Increase of $53,500)

- Fringe Benefit increases
- Salary increases

The increase in net overall **staff salaries** reflects the full-year funding of all positions in Student Life and Athletics in this budget. This includes both salaries and full cost of all fringe benefits.

There is a small increase in the percentage of funds, as compared to current year budget, dedicated to Staff: from 52.8% to 53.4% of total funds.

Student Publications (Guideline - 10%; Actual – 9.2%)

(Decrease of $6,120; 7.4%)

Minimal impact on current programmatic levels.

The three student literary magazines are still being produced. This year, the printing for *Limited Editions* and *Cypher* (developmental English magazine) was moved to off campus printer. Savings were realized by combining printing orders onto single Purchase Order and by limiting print run of each magazine. The magazine for ESL student writing is under review by English Department.

Student Handbook is in year two of three-year printing contract.

Campus Programming (Guideline - 15%; Actual – 11.8%)

(Decrease of $17,284; 14.9%)

Some significant changes reflected in this section. Overall programming efforts by Student Life have not changed – but changes in budget lines used were made. Specifically, events and programming formerly budgeted in the Films, Lectures, Concerts, Special Event Student Programs, and Campus Customs budget lines are now being produced by the Student Programming Board whose programming budgets are reflected in the Student Leadership and Involvement section of the budget.

The almost doubling of the Regional Center budget reflects the establishment of the Regional Center Student Programming Board and creating a more vibrant and robust programming calendar at each Regional Center.

Performing Arts (Guideline – 5%; Actual 2.6%)

(Decrease of $3,000)

This decrease is result of the Spoken Word – Student Performances becoming a student club (and funded by Student Government Association) and not sponsored directly by the Student Life Center. .

The Musical Events line is used to pay for BMI/SESAC/ASCAP royalties and is a fixed cost.

Student Support (Guideline – 15%; Actual 15.4%)

(Decrease of $7,700; 5.7%)

This decrease is a reflection of the programs and services formerly associated with the Student Involvement budget line being regrouped between the Co-Curricular Cultural and Educational Trips budget line (thus resulting in that budget line increase) and with the Student Programming Board.

"Health & Wellness Programs": This line covers student medical costs associated with P&P 308.

Student Leadership and Involvement (Guideline – 15%; Actual 21%)

(Increase of $55,300 ; 46.2%)

Philosophically, this section of the budget has reflected programs and services that are student led and initiated. This section has traditionally funded Student Government Association, Phi Theta Kappa, and all clubs and organizations.

With the creation of the Student Programming Board three years ago, it has matured into a student leadership opportunity that initiates many of the campus events, programs, and activities that historically were staff driven. Staff supervision is still in place and required, but the Student Programming Board now is the sponsor of concerts, lectures, art shows, etc., in addition to collaborative programming efforts with Student Government, student clubs, and others across campus.

Athletics (Guideline 35%; Actual 35%)

(Increase of $28,600; 10.2%)

The Athletic Department entered into a lease agreement for a van for transporting teams to and from competitions. The anticipated full-year use of the van is reflected in the creation of a new budget line (Athletics – Transportation) and the decrease in budget lines where bus or van rentals will no longer be necessary.

The anticipated decrease, due to the Affordable Care Act, in insurance premiums was not realized this year. A further review is being done this year for reduced premiums (for both intervarsity and intramural coverage). Any savings will be distributed within the Athletics budget.

Contingency (Guideline - 5%; Actual – 5%)

(Increase of $1,766; 4.4%)

Increase to maintain overall 5% guideline (split 35% Athletics and 65% Student Life).

First Year Student Success

This budget covers expenses related to programmatic efforts in support of entering and first-year students. This includes Student Orientation and Registration (SOaR), New Student Orientation Welcomes, Welcome Week, and Student Involvement Days.

Child Care

The Child Care budget is needed as a contingency for any charges that might be needed that are not covered with KLC contract or are beyond routine institutional costs (housekeeping, maintenance, etc.)

Commencement

Commencement budget covers most graduation-related expenses and the May ceremony expenses: student cap/gowns, honor cords, printing of programs, hall rental and event production costs.

TABLE VII-B

STUDENT ACTIVITIES, ATHLETICS & COMMENCEMENT BUDGET FOR THE FISCAL YEAR 2015-16
(WITH COMPARISON TO FISCAL YEARS 2013-14 AND 2014-15)

	Final 2013-2014 Expenses	Approved 2014-2015 Budget	Revised 2014-2015 Budget	Proposed 2015-2016 Budget	Variance from 2014-15 Approved Budget	% Change from 2014-15 Approved	Variance from 2014-15 Revised Budget	% Change from 2014-15 Revised
STUDENT PUBLICATIONS								
Student Vanguard	$26,778	$33,000	$33,000	$33,000	$0	0.0	$0	0.0
Limited Editions	9,263	6,000	7,000	10,000	4,000	66.7	3,000	42.9
CAP Magazine	8,542	5,500	0	0	(5,500)	(100.0)	0	0.0
ESL Magazine	4,058	5,500	0	0	(5,500)	(100.0)	0	0.0
Student Handbook	24,232	33,120	33,120	34,000	880	2.7	880	2.7
Guideline - 10%								
Actual - 9.2%	72,873	83,120	73,120	77,000	(6,120)	(7.4)	3,880	5.3
CAMPUS PROGRAMMING								
Concert and Museum Tickets	149,915	20,000	20,000	18,000	(2,000)	(10.0)	(2,000)	(10.0)
Films	0	500	500	0	(500)	(100.0)	(500)	(100.0)
Lectures		6,000	0	0	(6,000)	(100.0)	0	0.0
Concerts		5,200	0	0	(5,200)	(100.0)	0	0.0
Theatre Tickets	24,380	17,000	17,000	15,000	(2,000)	(11.8)	(2,000)	(11.8)
Art Exhibits	7,422	4,000	0	0	(4,000)	(100.0)	0	0.0
Special Theme Programs	33,549	30,000	0	0	(30,000)	(100.0)	0	0.0
Regional Centers	37,169	33,000	70,200	65,416	32,416	98.2	(4,784)	(6.8)
Special Events Student Programs	5,236	0	0	0	0	0.0	0	0.0
Campus Customs	5,380	0	0	0	0	0.0	0	0.0
Guideline - 15%								
Actual - 11.8%	263,052	115,700	107,700	98,416	(17,284)	(14.9)	(9,284)	(8.6)
PERFORMING ARTS								
Spirit / Pep Band	1,500	1,500	2,000	1,500	0	0.0	(500)	(25.0)
Theatrical Productions	16,117	13,000	13,000	13,000	0	0.0	0	0.0
Spoken Word - Student Performances	4,720	3,000	0	0	(3,000)	(100.0)	0	0.0
Musical Events Licensing	5,965	7,000	7,000	7,000	0	0.0	0	0.0
Guideline - 5%								
Actual - 2.6%	28,301	24,500	22,000	21,500	(3,000)	(12.2)	(500)	(2.3)

TABLE VII-B

STUDENT ACTIVITIES, ATHLETICS & COMMENCEMENT BUDGET FOR THE FISCAL YEAR 2015-16
(WITH COMPARISON TO FISCAL YEARS 2013-14 AND 2014-15)

	Final 2013-2014 Expenses	Approved 2014-2015 Budget	Revised 2014-2015 Budget	Proposed 2015-2016 Budget	Variance from 2014-15 Approved Budget	% Change from 2014-15 Approved	Variance from 2014-15 Revised Budget	% Change from 2014-15 Revised
STUDENT SUPPORT								
Awards and Certificates	240	700	700	700	0	0.0	0	0.0
Hospitality	10	0	0	0	0	0.0	0	0.0
Advertising and Marketing	13,177	5,000	5,000	10,000	5,000	100.0	5,000	100.0
Co-Curricular Cultural & Educational Trips	42,275	28,000	52,100	46,000	18,000	64.3	(6,100)	(11.7)
Student Involvement	24,934	24,400	0	0	(24,400)	(100.0)	0	0.0
Leadership Training	37,668	30,680	30,680	30,680	0	0.0	0	0.0
Student Ambassador	36,091	46,000	46,000	40,000	(6,000)	(13.0)	(6,000)	(13.0)
Health & Wellness Programs	207	1,000	1,000	700	(300)	(30.0)	(300)	(30.0)
Guideline - 15%								
Actual - 15.4%	154,603	135,780	135,480	128,080	(7,700)	(5.7)	(7,400)	(5.5)
STUDENT LEADERSHIP & INVOLVEMENT	135,739	119,700	203,703	175,000	55,300	46.2	(28,703)	(14.1)
Guideline - 15%								
Actual - 21%								
STAFF								
Student Activities	765,684	802,600	792,600	844,400	41,800	5.2	51,800	6.5
Faculty Advisors	69,180	72,000	58,897	65,000	(7,000)	(9.7)	6,103	10.4
Athletics	320,134	380,400	367,900	399,100	18,700	4.9	31,200	8.5
(53.4% of total funds)	1,154,997	1,255,000	1,219,397	1,308,500	53,500	4.3	89,103	24.2
CONTINGENCY (OSA)	0	25,935	25,935	27,083	1,148	4.4	1,148	4.4

TABLE VII-B

STUDENT ACTIVITIES, ATHLETICS & COMMENCEMENT BUDGET FOR THE FISCAL YEAR 2015-16
(WITH COMPARISON TO FISCAL YEARS 2013-14 AND 2014-15)

	Final 2013-2014 Expenses	Approved 2014-2015 Budget	Revised 2014-2015 Budget	Proposed 2015-2016 Budget	Variance from 2014-15 Approved Budget	% Change from 2014-15 Approved	Variance from 2014-15 Revised Budget	% Change from 2014-15 Revised
ATHLETICS								
General Athletic Support	17,047	7,500	7,500	9,000	1,500	20.0	1,500	20.0
Men's Varsity Basketball	42,591	40,800	40,800	29,000	(11,800)	(28.9)	(11,800)	(28.9)
Men's Baseball	305	0	0	0	0	0.0	0	0.0
Men's Soccer	19,260	25,000	25,000	25,000	0	0.0	0	0.0
Women's Soccer	0	0	0	0	0	0.0	0	0.0
Co-Ed Cross Country/Track&Field	44,821	59,970	55,000	52,000	(7,970)	(13.3)	(3,000)	(5.5)
Cheerleading	(105)		0	0			0	
Women's Basketball	33,512	40,800	40,800	25,200	(15,600)	(38.2)	(15,600)	(38.2)
Women's Volleyball	14,263	21,500	18,500	18,500	(3,000)	(14.0)	0	0.0
Women's Softball	0	0	0	0	0	0.0	0	0.0
Co-Ed Tennis	8,789	19,220	10,708	11,000	(8,220)	(42.8)	292	2.7
Co-Ed Intramurals	14,905	8,110	8,110	9,000	890	11.0	890	11.0
Co-Ed Aerobics	14,752	20,400	15,000	15,000	(5,400)	(26.5)	0	0.0
Co-Ed Martial Arts	0	0		0	0	0.0	0	0.0
Insurance	50,760	30,000	51,882	50,000	20,000	66.7	(1,882)	(3.6)
Medical Services	439	1,000	1,000	1,000	0	0.0	0	0.0
Advertising and Marketing	588	1,000	1,000	1,000	0	0.0	0	0.0
Athletic Equipment	5,089	4,000	4,000	5,000	1,000	25.0	1,000	25.0
Athletics - Transportation			29,270	*40,963*				
Guideline - 35%; Actual - 35%	267,017	279,300	308,570	291,663	(28,600)	(10.2)	(28,600)	(9.3)
CONTINGENCY (*Guideline-5% ; Actual-5%*)	2,000	13,965	0	14,583	618	4.4	14,583	100.0
SUBTOTAL	2,078,582	2,053,000	2,095,905	2,141,825	88,825	4.3	45,920.0	2.2
First Year Student Success	160,776	178,000	150,400	160,000	(18,000)	(10.1)	9,600	6.4
Childcare Support	0	5,000	5,000	5,000	0	0.0	0	0.0
Commencement	157,422	143,000	143,000	145,000	2,000	1.4	2,000	1.4
Student Activities Renovations	160,700							
TOTAL EXPENDITURES	$2,557,479	$2,379,000	$2,394,305	$2,451,825	$90,825	3.8	$57,520	2.4

TABLE VII-A

STUDENT ACTIVITIES, ATHLETICS & COMMENCEMENT BUDGET FOR THE FISCAL YEAR 2015-2016
(WITH COMPARISON TO FISCAL YEARS 2013-14 AND 2014-15)

	2013-14 Actual	Approved 2014-15 Budget	Revised 2014-15 Budget	Proposed 2015-16 Budget	Variance From 2014-15 Revised Budget	% Change From 2014-15 Revised
REVENUES						
General College Fee	$1,536,150	$1,537,000	1,530,448	$1,550,550	$20,102	1.3
Commencement Support	$57,000	$57,000	57,000	57,000	0	0.0
Auxiliary Profits	$708,672	$640,000	661,115	694,275	33,160	5.0
Revenues from Activities	$166,024	$145,000	145,000	150,000	5,000	3.4
TOTAL REVENUES	$2,467,846	$2,379,000	$2,393,563	$2,451,825	$58,262	2.4
EXPENDITURES						
Student Publications	$72,873	$83,120	$73,120	$77,000	$3,880	5.3
Campus Programming	$263,052	$115,700	$107,700	98,416	(9,284)	(8.6)
Performing Arts	$28,301	$24,500	$22,000	21,500	(500)	(2.3)
Student Support	$154,603	$135,780	$135,480	128,080	(7,400)	(5.5)
Student Leadership & Involvment	$135,739	$119,700	$203,703	175,000	(28,703)	(14.1)
Athletics	$267,017	$279,300	$308,570	291,663	(16,907)	(5.5)
Contingency	$2,000	$39,900	$25,935	41,666	15,731	60.7
First Year Student Success	$160,776	$178,000	$150,400	160,000	9,600	6.4
Childcare Support	$0	$5,000	$5,000	5,000	0	0.0
Commencement	$157,422	$143,000	$143,000	145,000	2,000	1.4
Staff	$1,154,997	$1,255,000	$1,219,397	1,308,500	89,103	7.3
Student Act - Renovations	160,700					
TOTAL EXPENDITURES	$2,557,479	$2,379,000	$2,394,305	$2,451,825	$57,520	2.4

Renovations (Org 32598) to: Winnet (S1-03; S2-08; S3-09) Campus Study/informal space

Community College of Philadelphia

Academic Program Audit

Construction Management A.A.S.

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Date: April, 2015

I. Executive Summary

The Construction Management Program prepares graduates to enter a variety of careers in the construction industry and related fields, including jobs as estimators, project managers and schedulers, surveyors, specifiers, quality control supervisors, materials testers, construction materials and equipment salespersons, owners' representatives, and site inspectors.

The Program has existed at the College since 1966, and underwent its most recent revision in 2010.

Nationally, employment of construction managers is projected to grow 19% percent from 2014 to 2024, faster than the average for all occupations.
Enrollment in the Construction Management Program averaged 76 students over the last five years and is on an upward trend.

The Program enrolls less students that place at college level and, consequently, a higher proportion of students that place in all developmental courses. In spite of the low proportion of students placing at college level, the Program records outcomes similar to those of the College in many areas and stronger outcomes are recorded in academic standing, course completion, and GPA. Eighteen degrees have been awarded over the past five years.

The Program shares a significant number of courses and student learning outcomes with other courses in the department. Additionally, the program shares four Student Learning Outcomes with Building Science and three SLOs with the Energy Conservation Academic Certificate.

Information on all student learning outcomes for the Construction Management Program has been uploaded into SharePoint. A lack of continuity in the documents that indicate what courses feed into the outcomes is an issue of note. Additionally, the sources of evidence in SharePoint are incomplete. Therefore, it is unclear which sources of evidence and rubrics are being used to assess each outcome.

This is a direct-to-work program with approximately 20% of students transferring upon departure. However, the Program does not have any program to program articulation agreements. In its current form, the program would struggle to establish program to program articulation agreements with local colleges because the College's Construction Management Program does not require courses in calculus, physics, engineering, and business. These courses are required in the first two years of the Construction Management Programs at local colleges. Draft course equivalency agreements are in process, however with three local institutions.

II. Program Description from the College Catalog

This program prepares students for a variety of careers in the construction industry and related fields, including jobs as estimators, project managers and schedulers, surveyors, specifiers, quality control supervisors, materials testers, construction materials and

equipment salespersons, owners' representatives, and site inspectors. Individuals interested in developing small, independent construction contracting businesses will also find this program useful toward achieving that goal. Although designed for career preparation, it also can serve students interested in continuing their studies and earning a bachelor's degree. Courses within this program utilize the latest industry-standard computer software for project scheduling, construction cost estimating, and contract and specification writing.

A. History and Revisions to the Curriculum

The Construction Management Program has existed at the College in some form since 1966. The Program underwent its last revision in 2010. Prior to the 2010 revision, the last revision was in 2006. The 2006 revision included changing the program's name from Construction Technology to Construction Management. As of the Fall of 2014, the Construction Technology Program had seven students enrolled in it.

The 2010 revision was the result of recommendations made by the advisory committee, program faculty, and industry voices. These changes include requiring ADC 286: Building Rehabilitation and Energy Retrofit and ADC 226: Structures I, developing ADC 146: Construction Supervision and Business Practices, and the revision of ADC 136: Construction Safety and Building Codes. ADC 286: Building Rehabilitation and Energy Retrofit was created in the spring of 2010 as a program elective and designed to give increased attention to building rehabilitation. In December 2010, the course was approved as a program requirement. ADC 146: Construction Supervision and Business Practices was created to include construction personnel supervision and management of small construction businesses in the curriculum. ADC 136: Construction Safety and Building Codes was revised and renamed to include construction site and personnel safety in the curriculum. Additionally, five courses within the program (ADC 112, ADC 212, ADC 237, ADC 253, and ADC 254 (see curriculum sequence, below)) were revised to include additional content in the area of green construction.

Apart from the 2010 revision, ADC 101: Introduction to Design and Construction and ADC 103: CAD Basics were revised to meet technological competency requirements of the general education standards. ADC 112: Construction Materials and Detailing: Principles and ADC 212; Construction Materials and Detailing: Methods were updated to include more "green" and sustainable design, material selection, and construction methods.

B. Curriculum Sequence

Course Number and Name	Pre & Co-requisites	Credits	Gen Ed Req.
First Semester			
ADC 101 - Introduction to Design & Construction		3	Tech Comp
ADC 103 - CAD Basics		3	Tech Comp
ADC 136 - Construction Safety and Building Codes		3	
ENGL 101 - English Composition I		3	ENGL 101
MATH 137 Geometry for Design (or higher MATH1)		3	Math
Second Semester			
ADC 112 - Construction Materials & Detailing: Principles	ADC 103 or ADC 109	3	
ADC 146 - Construction Supervision & Business Practices	ADC 101	3	
ADC 186 - Surveying	ADC 101	3	
ADC 286 - Building Rehabilitation and Energy Retrofit	ADC 101	3	
ENG 102 - The Research Paper	ENGL 101 with a grade of "C" or better	3	Info Lit
Third Semester			
ADC 163 - Digital Documentation in Architecture & Construction	ADC 103	3	
ADC 226 - Structures I	ADC 101 & MATH 118 or higher	3	
ADC 236 - Construction Cost Estimating I	ADC 101	3	
ADC 246 - Contracts and Specifications	ADC 101	3	
Social Science Elective1		3	Social Sciences
Humanities Elective1		3	Humanities
Fourth Semester			
ADC 212 - Construction Materials & Detailing: Methods	ADC 103 or ADC 109	3	
ADC 227 - Structures II	ADC 226	3	
ADC 237 - Construction Cost Estimating II - Computer Methods & Cost/Benefit Analysis	ADC 236	3	
ADC 261 - Construction Management and Scheduling	ADC 246	3	
Science Elective		3 or 4	Natural Science
Minimum Credits Needed to Graduate:		**63**	

C. Curriculum Map

Construction Management Program Student Learning Outcomes	ADC 101	ADC 103	ADC 112	ADC 136	ADC 146	ADC 163	ADC 186	ADC 212	ADC 226	ADC 227	ADC 236	ADC 237	ADC 246	ADC 261	ADC 286
Interpret and produce property surveys.	I	R			R	R	M A								
Interpret and produce structural drawings and details.	I	R	R			R		R	M A	M A					
Plan building renovation projects.	I	R	R	R		R		R	R			R	R	R	M A
Organize and run an independent construction business.	I			R	M A		R				R	R	R	R	R
Interpret architectural and construction drawings and documents, demonstrating knowledge of various building materials and methods and related building technologies.	I	I	R			M A	R	R	R	R	R	R			
Utilize computer systems for project planning and management and to produce estimates of probable construction cost, including analysis of costs and benefits.	I	I			R		R				R	M A	M	M	
Investigate and resolve problems in construction planning, scheduling and management.	I				R								M A	M A	R
Provide leadership in creating and maintaining a safe working environment.	I			R A	R								R		R

D. Future Direction for the Field/ Program

Current and future development in the Construction Management field revolves around three themes: (1) integration of Sustainability/Green practices in construction and demolition operations, (2) integration of computer technology in coordination of scheduling, cost accounting, and reporting, and (3) integration of construction techniques designed to improve quality and safety while reducing construction time, waste, and cost.

III. Profile of the Faculty

A. Program Faculty

Faculty	Position	Recent Courses Taught
Miles Grosbard, Ed. D., M. Arch	Department Chair Professor	*ADC 209, ADC 259, ADC 176,*
Arthur E Wolf, MS, MBA	Program Supervisor Visiting Lecturer	
Paula Behrens, M. Arch.	Professor	*ADC 109, ADC 112*
Anthony Palimore, M. Arch.	Assistant Professor	*ADC 103, ADC 254*
Michael Stern, M. Arch.	Assistant Professor	*ADC 159, ADC 192, ADC 260, ADC 212*
David Bertram, M. Arch.	Instructor	*ADC 103, ADC 227, ADC 237, ADC 163, ADC 101*
David Tinley, M. Arch	Adjunct	*ADC 136, ADC 146, ADC 186*
Elizabeth Masters, M. Arch, AIA	Adjunct	*ADC 112*

B. Faculty Engagement

In an increasingly interconnected world, faculty members have been participants in some of the College's Center for International Understanding initiatives. Over the past three years, one faculty member has been selected for two National Endowment for the Humanities "Bridging Cultures" Initiatives, one on East Asia and the second on South Asia. Faculty members have made presentations to students and fellow faculty while integrating lessons learned into the department's courses. Another faculty member was selected to participate in the Department of Education grant on East Asia for the 2014-15 academic year. These initiatives reflect the rich diversity of the department's students and the College's mission statement.

Full-time faculty members have been actively developing their skills by engaging with the larger community. In developing the new course "Philadelphia History: Architecture and Planning," created in collaboration with the History, Philosophy, and Religious Studies Department, faculty have engaged with the history and historic preservation communities of Philadelphia. Another faculty member has completed training in Leadership in Energy and Environmental Design (LEED), a central concern in sustainability and construction. Part-time faculty members are active professionals and members of the American Institute of Architects (AIA). One is president-elect of the Pennsylvania AIA chapter, while two others having thriving architectural practices: all energize the classroom. One part-time faculty member also teaches in the Facilities Management program at Temple University, forming a "bridge" to that program. The

faculty member is also a member of the International Facilities Management Association.

IV. Program Characteristics

A. Student Profile

Enrollment in the Construction Management Program averaged 76 students over the last five years and is on an upward trend. From 2009 to 2013 enrollment increased by 35%. During the same time period, enrollment in the Division decreased and enrollment in the College remained flat.

Table 1: Headcounts

		Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5 Year Average	5 Year Change
Construction Management*	Headcount	66	72	79	76	89	76	35%
	FTE Headcount	47	53	50	52	64	53	36%
Liberal Studies	Headcount	8892	8711	8717	8216	8059	8,519	-9%
	FTE Headcount	6313	6175	6137	5745	5649	6,004	-11%
College	Headcount	19047	19502	19752	18951	19065	19,263	0%
	FTE Headcount	13361	13697	13682	13106	13163	13,402	-1%

*These numbers include the students remaining in the Construction Technology Program, which closed in 2006 but still has at least 7 students enrolled in it.

The Construction Management Program enrolls students with similar demographics as the Division and the College in terms of race/ ethnicity and full-time status; however, differences exist in gender, age, and college level. The program enrolls more than double the proportion of males compared to the Division and the College; however, over 90% of construction managers are male. The Program enrolls a much lower proportion of students ages 16 to 21. The Program enrolls less students that place at college level, and a higher proportion of students that place in all developmental courses.

Table 2: Demographics

Demographics: Running 5 Year Average

	Construction Management	Liberal Studies	College
Female	12.6%	62.0%	64.2%
Male	87.1%	37.5%	35.4%
Unknown	0.3%	0.5%	0.5%
Native American	0.5%	0.5%	0.5%
Asian	6.9%	5.0%	7.2%
African American	49.5%	49.9%	48.6%
Latino/a	6.7%	5.7%	5.4%
White	29.0%	25.0%	24.9%
Other	2.0%	3.4%	3.4%
Unknown	5.4%	10.3%	9.9%
16 – 21	19%	32.7%	32.5%
22 – 29	36%	35.1%	36.6%
30 – 39	20%	15.4%	17.0%
40 +	24%	15.8%	13.0%
Unknown	0%	0.9%	0.9%
Full Time	32.3%	33.9%	31.2%
Part Time	67.7%	66.1%	68.8%
All Developmental	36.3%	29.3%	28.3%
Some Developmental	45.5%	47.3%	43.9%
College Level	18.2%	23.5%	27.8%

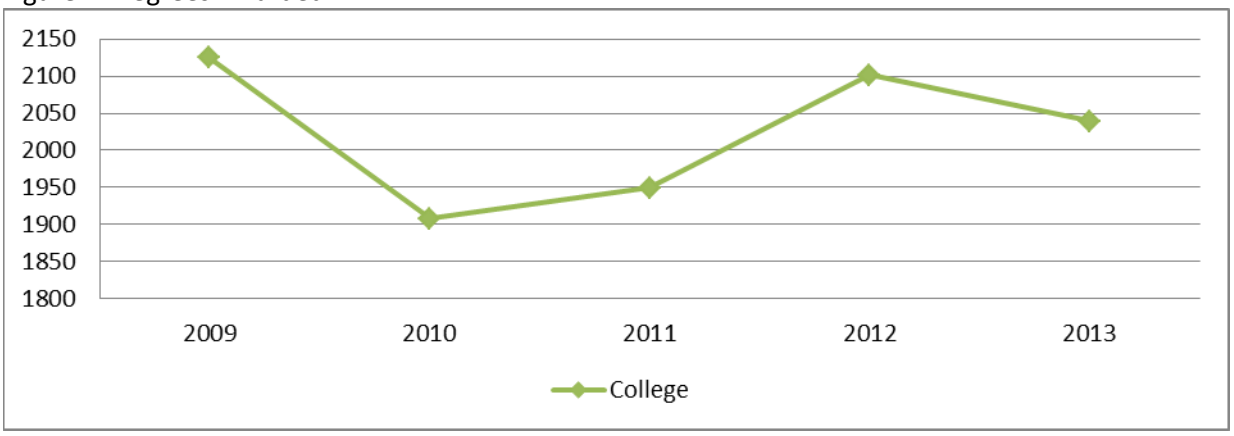
The Construction Management Program records outcomes similar to that of the College in many areas; however, stronger outcomes are recorded in academic standing, course completion, and GPA. The Program records similar rates of retention (fall-fall and fall-spring) within the Program and a lower proportion of students changing majors compared to the Division and the College. Graduation rates similar to that of the College and the Division are recorded.

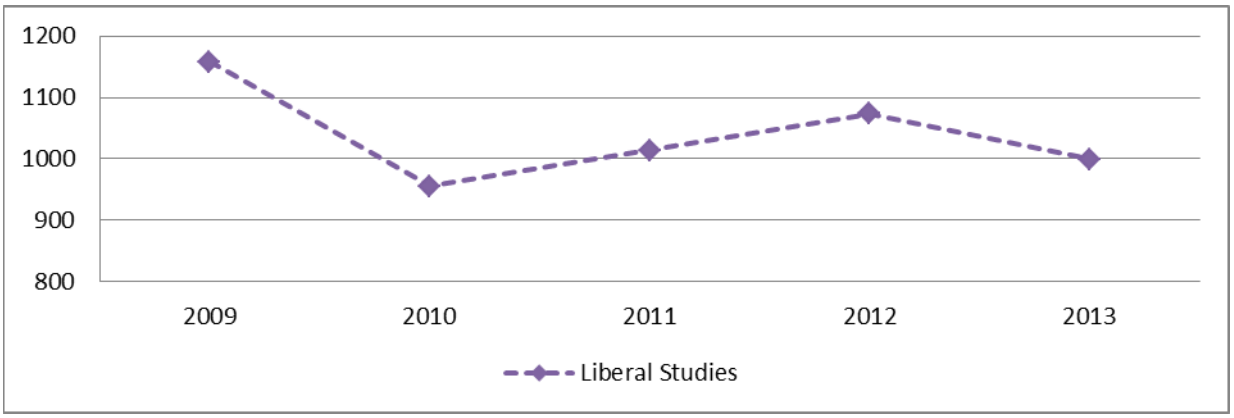
Table 3: Outcomes Data: 5 Year Averages

		Construction Management	Liberal Studies	College
Standing	Good Standing	89.2%	83.7%	85.0%
	Probation	10.5%	14.6%	13.5%
	Dropped	0.3%	1.6%	1.6%
Fall-Spring Retention	Returned/Same	66.2%	64.4%	65.8%
	Returned/Different	6.0%	6.4%	5.2%
	Graduated	2.9%	2.4%	2.1%
	Did Not Return	24.9%	26.8%	26.9%
Fall-Fall Retention	Returned/Same	37.9%	35.9%	36.7%
	Returned/Different	5.2%	9.7%	8.6%
	Graduated	10.0%	8.5%	8.4%
	Did Not Return	46.9%	45.9%	46.4%
Success at Departure	Graduated	11.8%	10.5%	10.0%
	Long Term Success	39.7%	37.3%	36.2%
	Short Term Success	18.5%	14.3%	17.2%
	Unsuccessful	30.0%	37.9%	36.6%
Course Outcomes	Course Completion	91%	87.4%	88.2%
	GPA	2.90	2.66	2.65

Transfer and Graduation

Figure 2: Degrees Awarded





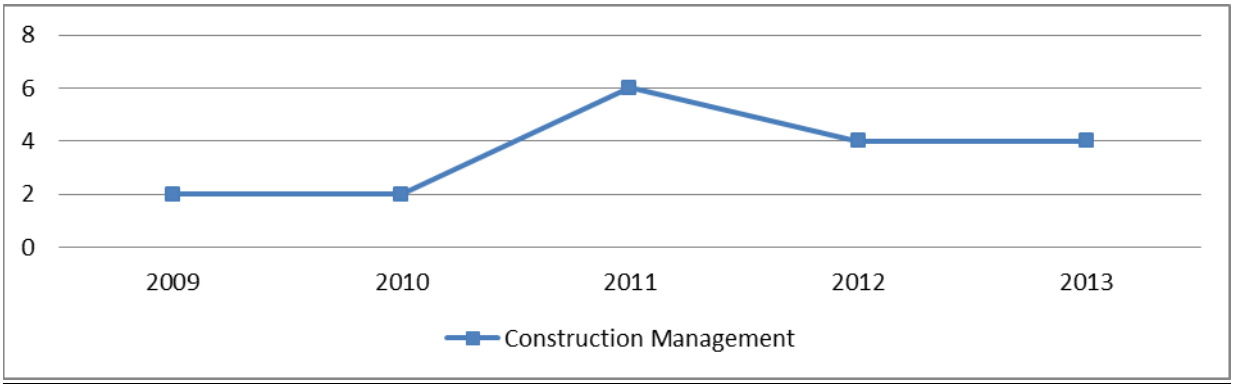
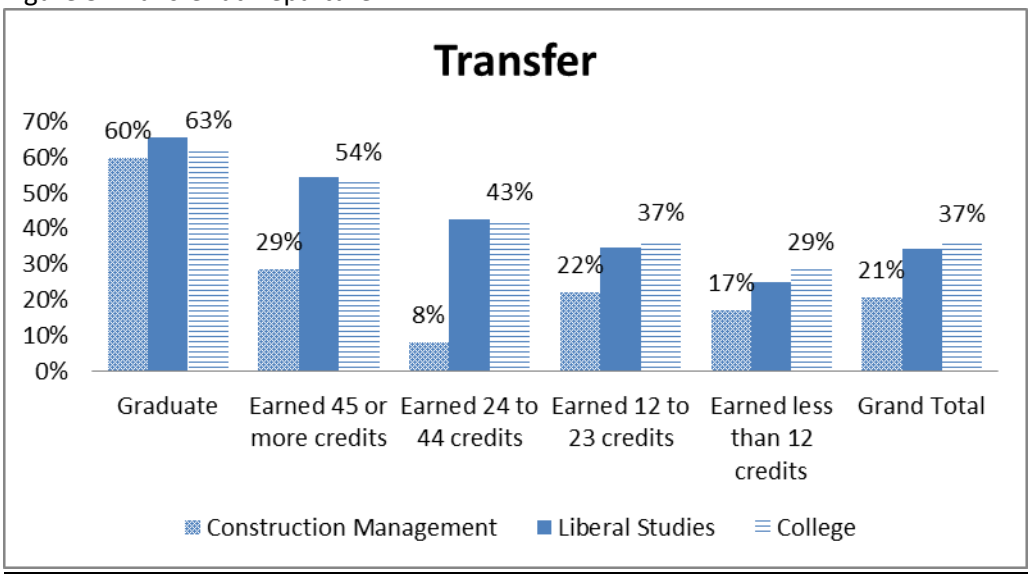


Table 4: Degrees Awarded

	2009	2010	2011	2012	2013	Total
Construction Management	2	2	6	4	4	18
Liberal Studies	1158	956	1014	1073	999	5200
College	2125	1908	1949	2101	2039	10122

Construction Management is an A.A.S. and, therefore, the focus of this program is direct-to-work as opposed to transfer. However, between 2007 and 2012, 21% of students (count of 28) that departed the program transferred. Approximately 60% of Construction Management students who graduated transferred.

Figure 3: Transfer at Departure



The College and Division record an almost equal number of freshmen as sophomores. However, within the Construction Management Program, there are 13% more sophomores than freshmen. This could be explained by a high proportion of students transferring into the program or by students entering the program with credits or prior learning.

Figure 3: Distribution of Students in Program

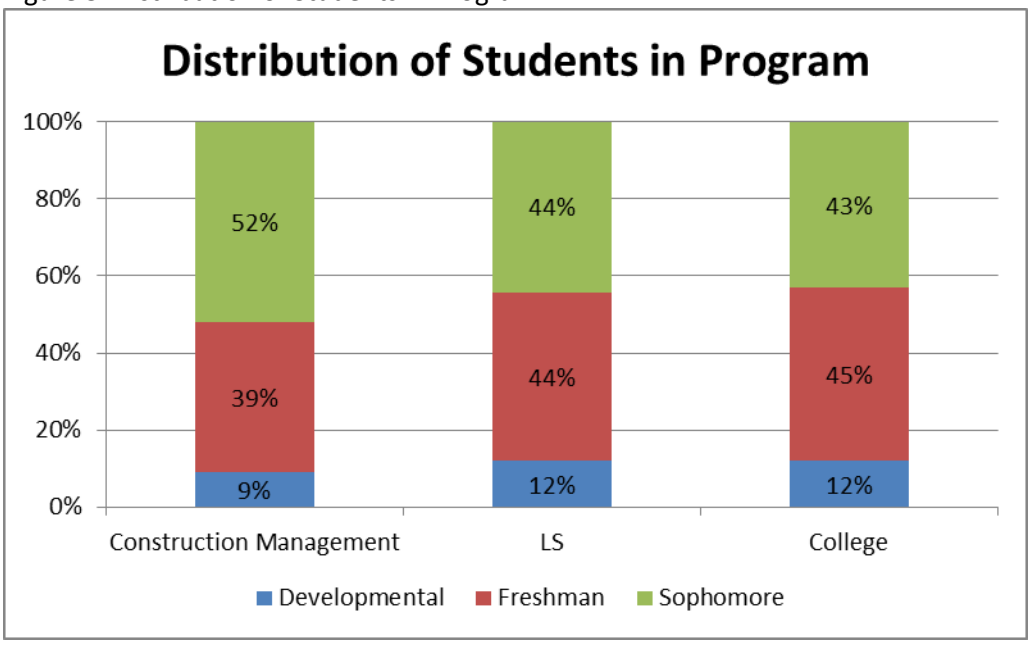


Table 5: Median Statistics for Program Graduates

	Construction Management	Liberal Studies	College
Number of Respondents	11	2496	5878
Years to Degree	5.7	4.8	4.7
Credits Attempted	103	83	85
Credits Earned	76	66	68
Credits Attempted/ Credits Earned	136%	126%	125%
GPA	3.17	3.05	3.08

On average, the Architecture, Design and Construction Department runs approximately 28 sections in the fall and 30 sections in the spring, with average enrollments of approximately 20 students during the fall and spring semesters. On average, fall sections are at 71% of capacity and spring sections run at 73% of capacity. These capacities are 12% lower than the Division (14% lower than the College) in the fall and 10% lower than the Division (11% lower than the College) in the spring.

These courses are housed in the Architecture, Design, and Construction Department. Along with Construction Management A.A.S., this department houses Facilities Management Construction and Facilities Management Design, Computer Assisted Design A.A.S, Architecture A.A., Interior Design A.A., and Building Science A.A.S. Many of the courses are shared among some or all of the disciplines. These programs generally require approximately 20 to 22 courses to obtain the degree, which include six general education requirements and 14 to 16 program specific courses. Facilities Management

Construction, Facilities Management Design, Construction Management, Computer Assisted Design, and Building Science all require the same six general education requirements, while architecture requires a different mathematics course.

- Construction Management and Facilities Management Construction share 14 courses.
- Construction Management and Facilities Management Design share 11 courses.
- Construction Management and Computer Assisted Design share between 10 and 16 courses.
- Construction Management and Architecture share 10 courses.
- Construction Management and Interior Design share between eight and 11 courses.
- Construction Management and Building Science share 16 courses.

This audit highlights the overlapping courses of the associates degrees offered in the ADC Department.

Table 6: Section Enrollments

Architecture, Design and Construction

		Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall Average	Spring Average
Program	Sections	24	27	28	32	36	35	28	31	24	28	28.00	30.60
	Avg Enrollment	21.54	20.26	20.79	21.13	18.72	18.94	19.21	21.71	18.92	19.71	19.84	20.35
	Percent Filled	77%	72%	73%	76%	69%	69%	69%	74%	68%	73%	71%	73%
Division	Sections	1439	1518	1549	1673	1666	1662	1620	1646	1473	1464	1549.40	1592.60
	Avg Enrollment	20.22	20.65	21.55	21.31	20.81	21.23	20.75	20.72	21.45	21.29	20.96	21.04
	Percent Filled	81%	82%	86%	86%	83%	84%	82%	81%	84%	82%	83%	83%
College	Sections	2694	2829	2881	3096	3023	2940	2939	3007	2756	2738	2858.60	2922.00
	Avg Enrollment	21.15	21.22	22.29	21.97	21.87	22.13	21.84	21.63	22.23	22.06	21.88	21.80
	Percent Filled	83%	83%	87%	86%	85%	85%	84%	83%	86%	84%	85%	84%

V. Learning Outcomes and Assessment

A. Student Learning Outcomes

Upon completion of the Construction Management program graduates will be able to:

1. Interpret and produce property surveys.
2. Interpret and produce structural drawings and details.
3. Plan building renovation projects.
4. Organize and run an independent construction business.
5. Interpret architectural and construction drawings and documents, demonstrating knowledge of various building materials and methods and related building technologies.
6. Utilize computer systems for project planning and management and to produce estimates of probable construction cost, including analysis of costs and benefits.
7. Investigate and resolve problems in construction planning, scheduling and management.
8. Provide leadership in creating and maintaining a safe working environment.

Construction Management shares four Student Learning Outcomes with Building Science and three SLOs with Energy Conservation.

B. Assessment

Information on all program level student learning outcomes for Construction Management has been uploaded into SharePoint. The Program assessed all eight of the PLOs and uploaded the information into SharePoint. All eight outcomes met the benchmarks of 65% of students achieving a good or excellent score on the assignment.

One issue is a lack of continuity in the documents that indicate what courses feed into the outcomes. There are three different areas of SharePoint that identify courses assessed for each outcome. However, there is often a misalignment between the three documents regarding which courses feed into which outcomes. For example, the last outcome lists assessment occurring in different courses in the SharePoint Program Level Assessment page (136), curriculum map (ADC 136), and the uploaded Program Level SLO Summary in the SharePoint (ADC 146). Either changes need to be made to the curriculum map or changes need to be made regarding which courses are assessed.

Additionally, looking at the sources of evidence in SharePoint, it is unclear which sources of evidence and rubrics are being used to assess each outcome.

C. Closing the Loop

The department concluded that because all eight outcomes met the benchmarks, no immediate actions are being taken and the outcomes will continue to be monitored. Although the Program met all benchmarks, taking ‘no immediate action’ is not a sufficient closing the loop activity. When a department greatly surpasses all benchmarks, they must evaluate the processes. For example, the department could evaluate the benchmark threshold, assignment, and rubrics. Additionally, there is no calendar for future assessments.

Table 7: Timeline for Course Learning Outcomes

Evidence Collected	Course
Fall 2011	ADC 101, ADC 103, ADC 112, ADC 163, ADC 186, ADC 212, ADC 226, ADC 246
Spring 2012	ACD 136, ADC 227, ADC 261
Fall 2012	ADC 236,
Spring 2013	ADC 146, ADC 237, ADC286
Fall 2013	
Spring 2014	
Fall 2014	
Spring 2015	
Fall 2015	

D. QVIs/335s

The Program is up-to-date on all Act 335s. QVIs for the program from 2013 through 2014 were evaluated for this audit. QVI's were not performed in 2012 because the Program was originally scheduled for audit in 2012, and QVI's are not performed during audit years. The QVI scores reflect the program quality and viability at a specific point in time. Although certain areas may have changed since the Program was scored, scores from the past remain on record.

The Program recorded a quality score of four in 2013; by 2014 the score had dropped to two. The decrease in score can be explained by the lack of documentation relating to assessment of program level student learning outcomes. Over the same time period, the Program experienced an increase in viability from one to 2.4. The increase can be attributed to increases in graduation rates, fall-spring retention, and degrees awarded. It must be noted that any fluctuations in low enrollment programs may appear deceptively large when percentages are calculated.

E. Surveys

An insufficient number of Construction Management students have responded to the graduate survey to make valid inferences from the data.

F. Advisory Committee

The Program's advisory committee meets once annually. Recent meetings have included between two and three members of industry and one to three faculty members from local colleges and universities. Recent discussions have focused on creating an enrollment management plan, academic performance, Perkin's funding, internships, alumni survey, the employment environment, the Construction Technology Program, course modifications, the Building Science program, software, and articulation agreements.

VI. Resources

The ADC department has a suite of rooms in W2-1 which, in addition to faculty offices, contains the following:

- A Design Studio for studio courses, augmented with computer access for research and visual presentations.
- A computer lab in which computer graphics courses are held.
- A computer lab in which other content courses are held.
- A presentation work space area for students to work in when class is not in session, and for final presentations.

The Department also uses a range of industry standard software including AutoDesk products (AutoCAD, REVIT), Adobe products (InDesign, Photoshop, Illustrator), SketchUP and WinEST. This software is purchase is supported through Perkins Local Plan funding for career programs.

VII. Demand

CCP's Construction Management Program trains students to enter a variety of occupations. Cost estimator, construction manager, surveyor, and construction and building inspector are common occupations entered into by program graduates. Locally, occupations in cost estimating and construction management are projected to grow more rapidly over the next ten years than the nationwide average job growth of 11%. Nationally, little growth is anticipated in surveying, construction, and building inspection.

Compared to occupations in surveying where employees may have extensive education, occupations in cost estimation, construction management, and construction and building inspection are more likely to be filled by individuals with an associate's degree or some college coursework. According to the Bureau of Labor and Statistics, it is increasingly important for construction managers to have a bachelor's degree in construction science, construction management, architecture, or engineering. As construction processes become more complex, employers are placing greater importance on specialized education.

The Philadelphia region is currently experiencing a boom in building construction activity. The boom is the result of a convergence of many factors, the most salient of which are low interest rates and pent up demand following the recession. At the time of this writing (March 2015), there are no fewer than 20 major construction projects underway in the Center City district alone.

Table 8a: Expected Job Growth

	2014-2024 Job Outlook			
Occupation	**Philadelphia**	**MSA**	**USA**	**Av. Hourly Salary**
Cost Estimator	11.10%	13.70%	20.60%	$28.59
Construction Managers	19.90%	22.30%	19.60%	$40.58
Surveyor	-1.80%	1.40%	10.10%	$27.21
Construction & Building Inspector	-0.60%	2.80%	12.00%	$26.18

Table 8b: Educational Attainment

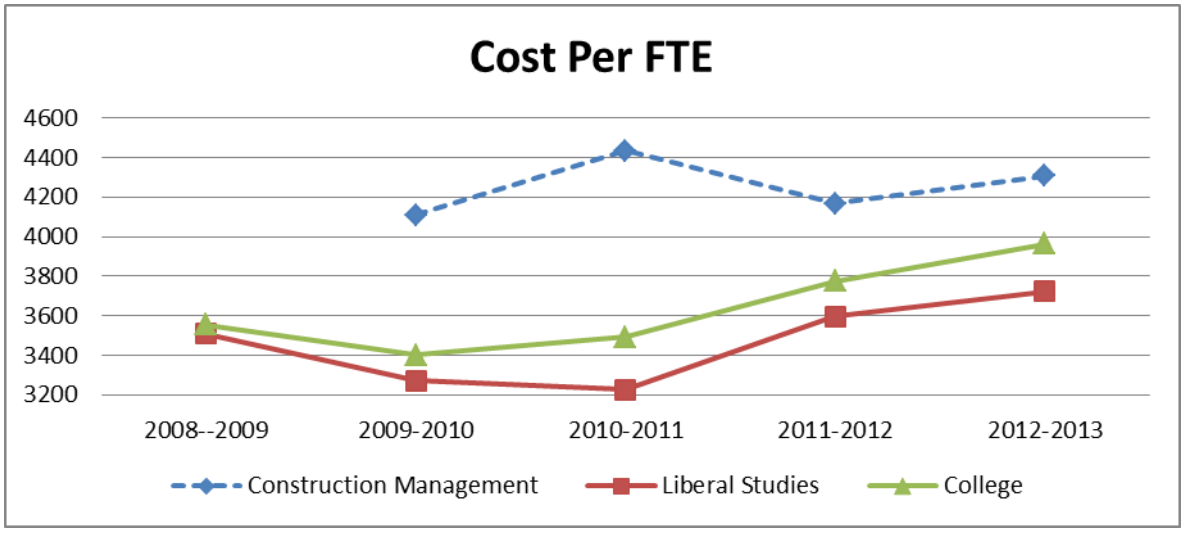
	National Education Attainment				
Occupation	**HS Diploma or Less**	**Some College**	**Associate's**	**Bachelor's**	**Graduate**
Cost Estimator	26.20%	28.70%	11.60%	28.40%	5.00%
Construction Managers	33.60%	25.00%	7.70%	27.50%	6.10%
Surveyor	0.30%	11.20%	7.90%	65.10%	15.50%
Construction & Building Inspector	28.40%	32.40%	12.50%	21.40%	5.30%

Locally, three colleges in the area (Drexel University, Temple University, and Philadelphia University) offer programs in Construction Management, offering a certificate, associates, bachelors, masters, and doctorate; additionally, Delaware County Community College offers an associate's degree and certificate in Construction Management. Although transfer opportunities exist for the College's students, no transfer agreements are listed on the transfer page of the College's website.

In its current form, the Program cannot develop articulation agreements with any local colleges due to the rigorous curricula in these schools. Drexel, Temple, and Philadelphia University's Programs are housed within the architecture or engineering departments. All three programs require students to take some combination of courses in pre-calculus, calculus, differential equations, chemistry, physics, business, and/ or engineering during the first two years of the program. Major changes would need to be made to the curriculum for the program to pursue program to program articulation agreements with local schools. However, in draft course equivalency agreements mentioned by faculty, Temple University and Philadelphia University are able to accept 100% of CCP a student's credits. Drexel University, due to a University-wide policy that does not allow for a program to accept another college's lower level course for one that is a higher level at Drexel, is not able to accept approximately (5) courses from CCP's Construction Management curriculum.

VIII. Operating Costs

No operating cost data was available prior to the 2009-2010 school year. Over the past four years, the Program's operating costs exceeded the average operating costs for the College by between 9 (2012-2013) and 27 percent (2010-2011).



IX. Findings & Recommendations

1. Contact all students from Construction Technology into Construction Management

In 2006, the Construction Technology Program closed and the Construction Management Program opened. Ideally, all students in the Construction Technology program were supposed to complete the CT Degree or transfer to the Construction Management Program. All new students were supposed to enroll in Construction Management. Seven students are enrolled in courses this semester as Construction Technology students. These students must complete a change of major form this semester. The Office of Assessment and Evaluation can provide the Department with a list of students enrolled in Construction Technology.

Timeline: Spring 2015

Responsible Persons: Program Faculty

2. Assessment

The curriculum map identifies 10 areas in which program level outcomes are assessed. While it is clear that assessment is occurring, the documents in SharePoint indicate that half the student learning outcomes are assessed in different courses than indicated on the curriculum map. Overall, the Program must increase transparency in the assessment process, including posting rubrics, clearly outlining which assignments from the courses feed into the outcomes and how the scores are calculated, and using independent measures for each outcome. Additionally, the Program needs to evaluate the benchmarks and create closing the loop activities.

Timeline: Summer 2015

Responsible Persons: Program Faculty

3. The department should create a program to accommodate students from the Construction Management, Facilities Management Design, Facilities Management Construction, and Computer Assisted Design students (and possibly Building Science).

The programs within the department have major overlaps in jobs, courses, and outcomes.[1] In a survey of programs at the two and four year level, many schools had programs in one of these areas, but none had as many as CCP. Additionally, in many of these programs at the four year level; the first two years were largely the same courses. The markets (education and employment) do not appear to need the fine-grained divisions among disciplines at the two year level offered here. While those with more education and/or experience may find, eventually, that there are specializations within the field; these divisions do not exist at the undergraduate level. A single AAS program would suffice, perhaps with options presented for students based on their interests, in a model similar to the Justice Program. The above is only one proposal; the department may wish to present an alternative plan for consolidation.

Provide Alternative Plan

Timeline: June 2015

Persons Responsible: Department Head

Program Created to Accommodate other ADC Students

Timeline: Fall 2015

Persons Responsible: Department Head, Program Faculty, Dean of Liberal Studies

4. **Create a program management plan**

Once the department has agreed upon a solution to recommendation 3 (above), they must develop a program management plan that address low course enrollment, the disproportionate rate of sophomores' progression through the program, and high operating costs. Currently the Construction Management Program is composed of a high proportion of older students with strong outcomes while the Facilities Management programs are composed of a high proportion of younger students with weaker outcomes. The program management plan must provide a framework for combing these programs and achieving results in these two populations.

Timeline: Spring 2016

Persons Responsible: Program Faculty, Department Head

[1] The department interprets this differently, in terms of efficiency rather than redundancy. "This [overlap] allows us to retain students when they change programs, as is common in undergraduate education. Often students will begin on one path and in the course of their education learn that the construction side of our industry appeals more to them than the design side- or vice-versa. We retain the student and the student does not lose much ground in term of time and coursework. … The divisions of architecture, interior design, construction management, facilities management, and building science most certainly do exist at the undergraduate level. While there is overlapping subject matter, each profession is unique and therefore requires a unique education path."

Community College of Philadelphia

Academic Program Audit

Facilities Management-Construction A.A.S.
Facilities Management-Design A.A.S.

Authors:
Christine McDonnell
John V. Moore III

Contributors:
Miles Grosbard

Date: April 2015

I. Executive Summary

CCP offers two associates degrees in Facilities Management: Facilities Management Construction A.A.S. (FAMC) and Facilities Management Design A.A.S (FAMD). The Facility Management Construction Option is designed to prepare students for entry-level positions as a facility managers or construction managers. The Design Option is intended to prepare graduates for entry-level positions as facility managers, space programmers, or move coordinators. Both Facilities Management Programs have existed at the College since 2008 and have been accredited by the International Facilities Management Association Foundation since 2010; it one of the few two year programs in the world to have this accreditation. Both Programs underwent revisions in the fall of 2013.

Both Programs have at least doubled their enrollments over the past five years, with enrollment in Construction averaging 17 students per fall semester, and Design averaging 6 students per fall semester. The Programs enroll a higher proportion of males than the Division and the College and more than half the students in the Programs are over the age of 30.

Both Programs record stronger outcomes than the Division and the College in terms of academic standing, fall-fall retention, success at departure, and course completion. Both Programs also enroll a lower proportion of college ready students than the Division and the College. The Construction Program has awarded 15 degrees in the past five years, while the Design program has awarded 6 degrees in the same time period.

Sections within the Architecture, Design, and Construction Department run less efficiently than the Division and the College. The Department offers nine programs, which share 29 courses. Within the two Facilities Management Programs, 16 of the 20 required courses overlap. Additionally, considerable overlap exists between all of the Programs in the Department.

Each Program has five Student Learning Outcomes, two of which are shared among the two Facilities Management Programs. Three outcomes are shared with Architecture, three outcomes are shared with Computer Assisted Design (Degree and Certificate), and three outcomes are shared with Interior Design. Facilities Management-Construction is up-to-date on program level assessment; Faculties Management Design has assessed four out of five Program Level Outcomes. Both Programs require additional documentation to be uploaded into SharePoint, including rubrics and additional sources of evidence.

Locally, one college offers a four year degree in Facilities Management and the program does not have any program to program articulation agreements but does have an informal course equivalency agreement.

Due to the considerable overlap in student learning outcomes, courses, reporting (QVIs, operating cost data, advisory committees, and course catalogue descriptions) and career paths, we recommend that these programs be combined with the other AAS programs within the department.

II. Program Description from College Catalog

CCP offers two associates degrees in Facilities Management: Facilities Management Construction A.A.S. (FAMC) and Facilities Management Design A.A.S (FAMD). The Facility Management programs

lead to an Associate of Applied Science (A.A.S.) degree in Facility Management. Facility Managers plan and manage the buildings, grounds and systems of large businesses and institutions. Often working behind the scenes, they are involved in a broad array of activities, including: planning, management, finance and real estate, design, and building operations issues, including security and communications. The Facility Management field is rapidly professionalizing, and opportunities abound in this highly-regarded industry. This program provides students with a foundational education addressing the multi-disciplinary character of the field, thereby allowing for diverse job opportunities. The core of the Facility Management curriculum lets students gain the basic technical knowledge of construction materials and processes and systems; business management and real estate are also addressed. The Design Option focuses specifically on developing planning and design skills for both new and renovated buildings.

Construction
The Facility Management – Construction Option is designed to prepare students for an entry-level position as a facility manager or construction manager. Their construction knowledge may be applied in overseeing the building of new or renovated facilities, the installation of updated systems, or determining the construction issues related to expansion or new uses. They will work closely with those in the design areas. In any of these roles, the students will be prepared to interact with the senior management of their employer and deal with multiple real estate issues.

The Construction Option focuses on construction and management issues specific to the building and renovating process, such as the installation of updated systems and finishes, building codes, cost estimating, and scheduling and contracting. This program gives the student an opportunity to understand the fundamentals of building construction, such as interpreting construction documents and specifications, understanding construction contracts, creating construction cost estimates, scheduling and managing building projects, and being familiar with the technical aspects of building materials and systems.

Design
The Facility Management – Design Option is intended to prepare a graduate for an entry-level position as a facility manager, space programmer, and space planner or move coordinator. Their design skills will be utilized in designing renovations, planning expansions and supervising outside design consultants. They will work closely with those in construction. In any of these roles, the students will be prepared to interact with the senior management of their employer and deal with multiple real estate issues.

The Design Option listed here gives the student an opportunity to acquire design skills to apply toward new and renovated buildings, as well as evaluating and planning development sites. Experience working in teams and communicating design concepts is emphasized. The design studio, the core learning environment in design education, offers the opportunity to develop design skills and understand the conceptual framework of the design process.

A. History and Revisions to the Curriculum

Both Facilities Management Programs have existed at the College since 2008 and have been accredited by the International Facilities Management Association Foundation since 2010. Only two other associates programs have this accreditation. Both Programs underwent revisions in the fall of 2013. The revisions included six changes that impacted

both curricula. Two changes were specifically for the Construction curriculum and four changes were specifically for the Design Curriculum.

Both curricula replaced LEAD 104: Introduction to Leadership Studies with ADC 146: Construction Supervision and Business Practices. ADC 136: Construction Safety and Building Codes and ADC 254: Environmental Systems II were both changed from directed electives to required courses. ADC 212: Construction Materials and Detailing: Methods was deleted. The Social Science Elective was deleted because it is fulfilled through ECON 182- Microeconomics. The mathematics requirements for both curricula were changed from MATH 118 or higher to MATH 137: Geometry for Design or higher.

The Construction Option changed ADC: 236 Construction Cost Estimating from a directed elective to a required course and deleted ADC 226: Structures I- Analysis, which is currently a directed elective.

The Design Option changed ADC 160: Presentation Techniques and ADC 192: Color and Lighting from directed electives to required courses and deleted ADC 209: Design Studio III and ADC 163: Digital Documentation in Architecture and Construction.

Made in 2013, these revisions were the first changes since accreditation. The revisions were made to the curricula to align the programs more directly with current industry needs. Revisions were made to the Design Option based on the recommendations of the visiting team. The purpose of the recommendations was to increase the study of supervision and business practices in the construction industry.

B. **Curriculum Sequence - Facility Management - Construction Option**

Course Number and Name	Pre & Co-requisites	Credits	Gen Ed Req.
First Semester			
ADC 101 – Introduction to Design and Construction		3	Tech Comp*
ADC 103 – CAD Basics		3	Tech Comp*
ADC 136 – Construction Safety and Building Codes		3	
ENGL 101 – English Composition I		3	ENGL 101
MATH 137 - Geometry for Design (or higher MATH1)		3	Mathematics
Second Semester			
ADC 112 – Construction Materials and Detailing: Properties	ADC 103 or ADC 109	3	
ADC 163 – Digital Documentation in Architecture and Construction	ADC 103	3	
MNGT 121 – Introduction to Business		3	
ENGL 102 – The Research Paper	ENGL 101 with a grade of "C" or better	3	Info Lit
ECON 182 – Principles of Economics		3	Soc Sci
Third Semester			
ADC 146 – Construction Supervision & Business Practices	ADC 101	3	
ADC 236 – Construction Cost Estimating I	ADC 101	3	
ADC 246 – Contracts and Specifications	ADC 101	3	
ADC 253 – Environmental Systems I	ADC 101 and ADC 103 or ADC 109	3	
Humanities Elective		3	Humanities
Fourth Semester			
ADC 254 – Environmental Systems II	ADC 253	3	
ADC 261 – Construction Management and Scheduling	ADC 246	3	
RE 101 – Real Estate Fundamentals		3	
Management Elective Choose one: MNGT 141 –Principles of Management MNGT 142 – Management Information Systems MNGT 262 – Business Law	MNGT 121	3	
Science Elective1		3	Natural Science
Minimum Credits Needed to Graduate:		**60**	

B2. Curriculum Sequence - Facility Management - Design Option

Course Number and Name	Pre & Co-requisites	Credits	Gen Ed Req.
First Semester			
ADC 101 – Introduction to Design and Construction		3	Tech Comp*
ADC 103 – CAD Basics		3	Tech Comp*
ADC 136 – Construction Safety and Building Codes		3	
ENGL 101 – English Composition I		3	ENGL 101
MATH 137 - Geometry for Design (or higher MATH1)		3	Mathematics
Second Semester			
ADC 109 - Design Studio I		4	
ADC 112 – Construction Materials and Detailing: Properties	ADC 103 or ADC 109	3	
ENGL 102 – The Research Paper	ENGL 101 with a grade of "C" or better	3	ENGL 102, Info Lit
MNGT 121 – Introduction to Business		3	
ECON 182 - Principles of Economics (Microeconomics)		3	Social Sciences
Third Semester			
ADC 146 - Construction Supervision & Business Practices	ADC 101	3	
ADC 159 Design Studio II	ADC 103 & ADC 109	4	
ADC 160 - Presentation Techniques	ADC 103, ADC 109	3	
ADC 253 – Environmental Systems I	ADC 101 and ADC 103 or ADC 109	3	
Humanities Elective		3	Humanities
Fourth Semester			
ADC 192 - Color & Lighting	ADC 101	3	
ADC 254 - Environmental Systems II	ADC 253	3	
RE 101 – Real Estate Fundamentals		3	
Management Elective Choose One:		3	
MNGT 141 - Principles of Management	MNGT 121		
MNGT 142 - Management Information Systems Management			
MNGT 262 - Business Law			
Science Elective1		3 or 4	Natural Science
Minimum Credits Needed to Graduate:		**62**	

C. Curriculum Map- Facility Management - Construction

Key:
I – Introduced **R**-Reinforced and opportunity to practice **M**-Mastery at exit level **A**-Assessment evidence collected

Student Learning Outcomes	ADC 101	ADC 103	ADC 112	ADC 136	ADC 146	ADC 163	ADC 186	ADC 253	ADC 254	ADC 236	ADC 237	ADC 246	ADC 261
Interpret architectural and construction drawings and documents.	I	I	I			R	M A	R	R	R	M	M	
Demonstrate knowledge of various building materials and methods and related building technologies.			I			R	R	R A	M A	R	M A	M	M
Utilize computer systems for communication in technical drafting and documentation, project planning and management.		I	R			M A	R	R	R	R	M A	M A	M A
Apply basic principles of planning, management and real estate practice.	I	I		R	R		R		R	R	R	M A	M A
Communicate effectively and work as part of a team, using graphic, oral and written modes.	I	I		R		M A	R	R	R	R	R		M A

C2. Curriculum Map- Facilities Management-Design

Key:

I – Introduced **R**-Reinforced and opportunity to practice **M**-Mastery at exit level **A**-Assessment evidence collected

Student Learning Outcomes	ADC 101	ADC 103	ADC 109	ADC 112	ADC 136	ADC 146	ADC 186	ADC 253	ADC 254	ADC 236	ADC 159	ADC 160	ADC 209
Demonstrate an understanding of the design process by solving specific design problems, synthesizing and applying technical, historical, cultural and theoretical concepts.	I	I	I	R			M A	R	R	R	R	R	M A
Develop design drawings and models utilizing freehand drawing and modeling, mechanical drawing, and computer drafting and modeling.	I	I	I	R			R	R	R		R	R	M A
Apply basic principles of planning, management and real estate practice.	I	I	I		R	R		R	R	R	R		M A
Demonstrate knowledge of various finish materials and methods, furnishings and related interior products.	I				R		R				R		M A
Communicate effectively and work as part of a team, using graphic, oral and written modes.	I	I	I	R		R	R	R	R		R	R	M

D. Future Direction for the Field/ Program

Facilities Management is a rapidly growing field for our students thanks to multiple factors. Because many current Facilities Managers are nearing retirement age, there is a need to plan for succession. The emergence of a four year program at Temple and offerings by other area schools also provides for a variety of educational paths within the College's program, which is the oldest in the region recognized by the International Facilities Management Association (IFMA).

The future of the field will include tighter integration of building management through the use of Building Information Modeling software, such as Revit. Even more critical will be Sustainability and Green Technologies practices, including minimizing the life cycle cost of building operation and environmental impact, and improving indoor environmental quality. The new Sustainable Facility Professional Certification, organized by IFMA, is one indication of the importance of these issues.

III. Profile of the Faculty

A. Program Faculty

Faculty	Position	Recent Courses Taught
Miles Grosbard, Ed. D., M. Arch	Department Chair Professor	*ADC 209, ADC 259, ADC 176,*
Arthur E Wolf, MS, MBA	Program Supervisor Visiting Lecturer	
Paula Behrens, M. Arch.	Professor	*ADC 109, ADC 112*
Anthony Palimore, M. Arch.	Assistant Professor	*ADC 103, ADC 254*
Michael Stern, M. Arch.	Assistant Professor	*ADC 159, ADC 192, ADC 260, ADC 212*
David Bertram, M. Arch.	Instructor	*ADC 103, ADC 227, ADC 237, ADC 163, ADC 101*
David Tinley, M. Arch	Adjunct	*ADC 136, ADC 146, ADC 186*
Elizabeth Masters, M. Arch, AIA	Adjunct	*ADC 112*

B. Faculty Engagement

In an increasingly interconnected world, faculty members have been participants in some of the College's Center for International Understanding initiatives. Over the past three years, one faculty member has been selected for two National Endowment for the Humanities "Bridging Cultures" Initiatives, one on East Asia and the second on South Asia. Faculty members have made presentations to students and fellow faculty while integrating lessons learned into the department's courses. Another faculty member was selected to participate in the Department of Education grant on East Asia for the 2014-15 academic year. These initiatives reflect the rich diversity of the department's students and the College's mission statement.

Full-time faculty members have been actively developing their skills by engaging with the larger community. In developing the new course "Philadelphia History: Architecture and Planning," created in collaboration with the History department, faculty have engaged with the history and historic preservation communities of Philadelphia.

Another ADC faculty member has completed training in Leadership in Energy and Environmental Design (LEED), a central concern in sustainability and construction. Part-time faculty members are active professionals and members of the American Institute of Architects (AIA). One is president-elect of the Pennsylvania AIA chapter, while two others have thriving architectural practices. One part-time faculty member is a member of IFMA and also teaches in the Facilities Management program at Temple University, forming a "bridge" to that program.

IV. Program Characteristics

A. Student Profile

Enrollment within the Facilities Management-Construction Program has increased by over 260% in the past five years, with an average headcount of approximately 17 students per year. Enrollment within the Facilities Management-Design Program has increased by 200% over the same time period, with an average headcount of approximately 6 students per year.

Table 1: Headcounts

		Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5 Year Average	5 Year Change
FM-Construction	Headcount	8	9	18	23	29	17	263%
	FTE Headcount	5	7	10	15	21	12	320%
FM- Design	Headcount	2	4	8	8	6	6	200%
	FTE Headcount	3	7	11	11	9	8	200%
Liberal Studies	Headcount	8892	8711	8717	8216	8059	8,519	-9%
	FTE Headcount	6313	6175	6137	5745	5649	6,004	-11%
College	Headcount	19047	19502	19752	18951	19065	19,263	0%
	FTE Headcount	13361	13697	13682	13106	13163	13,402	-1%

Construction

Facilities Management-Construction enrolls students with similar demographics to the Division and the College in terms of race/ ethnicity and full-time status. Differences exist between the Program, Division, and College in terms of gender, age, and developmental status. Approximately 83% of the students in the Program are males, which is more than double the percentage of males in the Division and the College. Approximately 1/3 of the students in the Division and the College are ages 16-21, while only approximately 9% of the students in Facilities Management-Construction students fall within that age group. Consequently, the program records a much higher proportion of students over the age of 30 than the Division and the College. Differences exist in the level of college readiness between the Program, Division, and College. A lower proportion of students in the Program are College ready compared to the Division and the College. Almost twice as many students in the Program place developmentally in all of their subjects compared to the Division and the College; consequently, the Program records a much lower rate of students placing developmentally in some subjects. Marginal differences exist in the race/ ethnicity percentages, with the exception of Latinos, who enroll in the Facilities Management-Construction Option at almost triple the rate of the Division and the College.

Design

The Design Option records similar demographic trends as the Construction Option in terms of gender, age, and full-time status. Differences exist in ethnicity/ race and level of college readiness. The Design Option records triple the proportion of Asian students relative to the Division and a marginally higher percentage of Caucasian students compared to the Division and the College. Additionally, the Design Option records a lower percentage of students placing at college level compared to the Construction Option, the Division, and the College. Approximately 30% of students (Division and College-wide) place developmentally in all subjects, while approximately 40% of the Design Option students place developmentally in all subjects. A marginally lower proportion of students in the Design Program place developmentally in some subjects compared to the Division and the College.

Table 2: Demographics

Demographics: Running 5 Year Average

	FM-Construction	FM-Design	Liberal Studies	College
Female	16.0%	17.1%	62.0%	64.2%
Male	82.9%	82.9%	37.5%	35.4%
Unknown	1.1%	0.0%	0.5%	0.5%
Native American	0.0%	0.0%	0.5%	0.5%
Asian	4.7%	15.1%	5.0%	7.2%
African American	51.2%	46.6%	49.9%	48.6%
Latino/a	14.5%	2.7%	5.7%	5.4%
White	20.3%	31.5%	25.0%	24.9%
Other	1.7%	1.4%	3.4%	3.4%
Unknown	7.6%	2.7%	10.3%	9.9%
16 – 21	9.1%	7.3%	32.7%	32.5%
22 – 29	34.6%	34.4%	35.1%	36.6%
30 – 39	25.5%	23.3%	15.4%	17.0%
40 +	29.6%	35.1%	15.8%	13.0%
Unknown	1.3%	0.0%	0.9%	0.9%
Full Time	27.6%	31.4%	33.9%	31.2%
Part Time	72.4%	68.6%	66.1%	68.8%
All Developmental	56.5%	41.7%	29.3%	28.3%
Some Developmental	25.0%	41.7%	47.3%	43.9%
College Level	18.5%	16.7%	23.5%	27.8%

Construction
Facilities Management-Construction records stronger outcomes than the Division and the College in terms of academic standing, fall-fall retention, success at departure, and course outcomes. A higher proportion of students in the Construction program are in good standing compared to the Division and the College. Fall-Fall retention is approximately 10% higher in the Construction Program compared to the Division and the College. A lower proportion of students change majors compared to the Division and the College. The graduation rate is approximately twice that of the Division and the College (graduation rate= percent of departed students who departed due to graduation). Ten percent fewer students were unsuccessful at departure compared to the Division and the College. Course completion and average GPA are higher in the Construction Program relative to the Division and the College.

Design
Facilities Management-Design records similar outcomes as the Construction Option. The Program records a high rate of students in good academic standing (approximately 96%) and a low rate of students on probation (approximately 4%). Fall-fall retention is higher than the Division and the College. However, between the fall and the spring, approximately twice the percentage of students in the program change majors compared to the College. It is unclear at the present time whether these students are transferring into other programs within the department or into unrelated programs. The graduation rate of the Program is almost quadruple that of the Division and the College, with approximately 37% of those departing the Program doing so with a degree. Approximately 37% of students also leave the College achieving unsuccessfully.

Table 3: Outcomes Data: 5 Year Averages

		FM-Construction	FM-Design	LS	College
Standing	Good Standing	92.1%	96.0%	83.7%	85.0%
	Probation	7.4%	4.0%	14.6%	13.5%
	Dropped	0.4%	0.0%	1.6%	1.6%
Fall-Spring Retention	Returned/Same	64.0%	71.3%	64.4%	65.8%
	Returned/Different	4.8%	10.7%	6.4%	5.2%
	Graduated	5.7%	5.9%	2.4%	2.1%
	Did Not Return	25.5%	12.1%	26.8%	26.9%
Fall-Fall Retention	Returned/Same	44.5%	48.7%	35.9%	36.7%
	Returned/Different	5.9%	7.3%	9.7%	8.6%
	Graduated	16.5%	13.3%	8.5%	8.4%
	Did Not Return	33.1%	30.8%	45.9%	46.4%
Success at Departure	Graduated	19.5%	37.5%	10.5%	10.0%
	Long Term Success	36.1%	25.0%	37.3%	36.2%
	Short Term Success	16.7%	0.0%	14.3%	17.2%
	Unsuccessful	27.8%	37.5%	37.9%	36.6%
Course Outcomes	Course Completion	94%	97%	87.4%	88.2%
	GPA	2.95	3.09	2.66	2.65

Transfer by Departure Status

Between 2007 and 2013, 25 students left the program, eight of whom transferred (32%).

Figure 1: Degrees Awarded

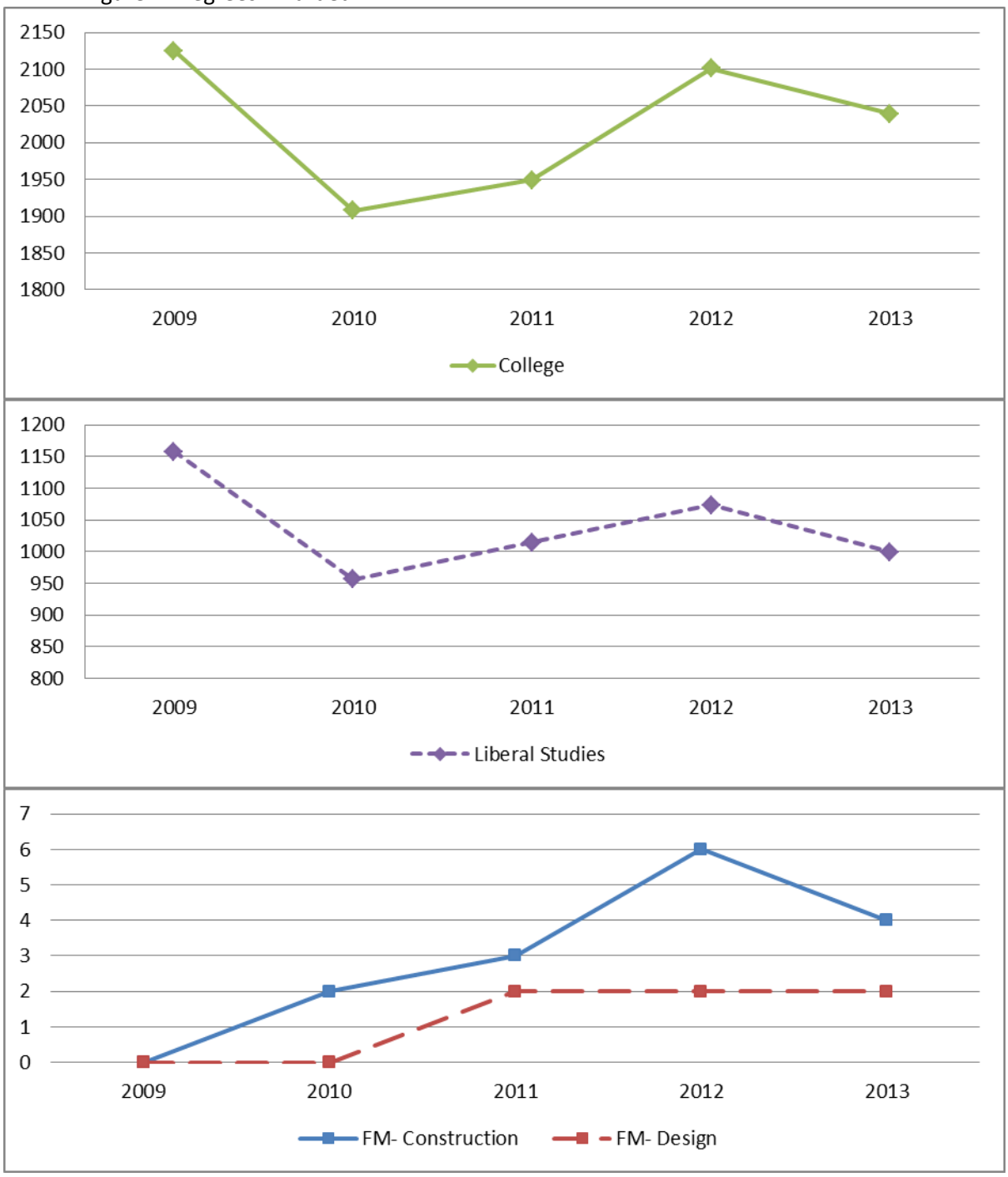
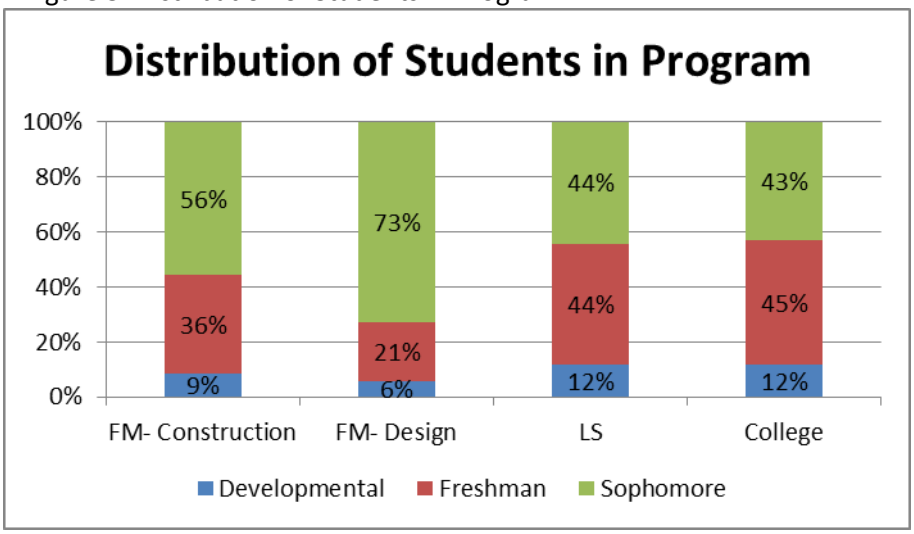


Table 4: Degrees Awarded

	2009	2010	2011	2012	2013	Total
FM- Construction	0	2	3	6	4	15
FM- Design	0	0	2	2	2	6
Liberal Studies	1158	956	1014	1073	999	5200

College	2125	1908	1949	2101	2039	10122

Figure 3: Distribution of Students in Program



On average, the Architecture/ Design/ Construction Department runs approximately 28 sections in the fall and 30 sections in the spring, with average enrollments of approximately 20 students during the fall and spring semesters. On average, fall sections run at 71% of capacity and spring sections run at 73% of capacity. These capacities are 12% lower than the Division (14% lower than the College) in the fall and 10% lower than the Division (11% lower than the College) in the spring.

These courses are housed in the Architecture, Design, and Construction Department. Along with Facilities Management Construction and Facilities Management Design, this department houses Construction Management A.A.S., Computer Assisted Design A.A.S, Architecture A.A., Interior Design A.A., and Building Science A.A.S. Many of the courses are shared among some or all of the disciplines. These programs generally require approximately 20 courses to obtain the degree, which include six general education requirements and 14 program specific courses. Facilities Management Construction, Facilities Management Design, Construction Management, Computer Assisted Design, and Building Science all require the same general education requirements, while Architecture requires a different mathematics course.

- Facilities Management Construction and Facilities Management Design share 16 courses
- Computer Assisted Design and Facilities Management Construct share anywhere from 12 to 16 courses
- Computer Assisted Design and Facilities Management Design share 12 to 15 courses
- Facilitates Management Construction and Construction Management share 15 courses
- Construction Management and Computer Assisted Design share 11 to 17 courses

This audit highlights the overlapping qualities of the associates degrees offered in this department.

Table 6: Course Enrollments

Architecture/Design/Construction

	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall Average	Spring Average
Sections	24	27	28	32	36	35	28	31	24	28	28.00	30.60
Avg Enrollment	21.54	20.26	20.79	21.13	18.72	18.94	19.21	21.71	18.92	19.71	19.84	20.35
Percent Filled	77%	72%	73%	76%	69%	69%	69%	74%	68%	73%	71%	73%
Sections	1439	1518	1549	1673	1666	1662	1620	1646	1473	1464	1549.40	1592.60
Avg Enrollment	20.22	20.65	21.55	21.31	20.81	21.23	20.75	20.72	21.45	21.29	20.96	21.04
Percent Filled	81%	82%	86%	86%	83%	84%	82%	81%	84%	82%	83%	83%
Sections	2694	2829	2881	3096	3023	2940	2939	3007	2756	2738	2858.60	2922.00
Avg Enrollment	21.15	21.22	22.29	21.97	21.87	22.13	21.84	21.63	22.23	22.06	21.88	21.80
Percent Filled	83%	83%	87%	86%	85%	85%	84%	83%	86%	84%	85%	84%

V. Learning Outcomes and Assessment

A. Student Learning Outcomes

Upon completion of the Facilities Management-Construction Program, graduates will be able to:

1. Interpret architectural and construction drawings and documents.
2. Demonstrate knowledge of various building materials and methods and related building technologies.
3. Utilize computer systems for communication in technical drafting and documentation, project planning and management.
4. Apply basic principles of planning, management and real estate practice.
5. Communicate effectively and work as part of a team, using graphic, oral and written modes.

Upon completion of Facilities Management-Design Program graduates will be able to:

1. Demonstrate an understanding of the design process by solving specific design problems, synthesizing and applying technical, historical, cultural and theoretical concepts.
2. Develop design drawings and models utilizing freehand drawing and modeling, mechanical drawing, and computer drafting and modeling.
3. Apply basic principles of planning, management and real estate practice.
4. Demonstrate knowledge of various finish materials and methods, furnishings and related interior products.
5. Communicate effectively and work as part of a team, using graphic, oral and written modes.

Although two different programs, they share two outcomes with each other and share three outcomes with Architecture, three outcomes with Computer Assisted Design (Degree and Certificate), and three outcomes with Interior Design.

B. Assessment

Construction

Facilities Management-Construction is up to date on all Program Level Student Learning Outcomes. The Program assessed all five of the PLOs and uploaded the information into SharePoint. All five outcomes met the benchmark of 65% of students achieving a good or excellent score on assessments.

One issue is a lack of continuity in the documents that indicate what courses feed into the outcomes. There are three different areas of SharePoint that identify courses assessed for each outcome. However, here is often a misalignment between the three documents regarding which courses feed into which outcomes. For example, the first outcome lists assessment occurring in different courses in the SharePoint (ADC 237, ADC 246), curriculum map (ADC 186), and the uploaded documents in the SharePoint (ADC 254).

Additionally, looking at the sources of evidence in SharePoint, it is unclear which sources of evidence and rubrics are used to assess each outcome.

Design

Facilities Management Design has assessed four out of five of the PLOs and uploaded information into SharePoint. The benchmark for each outcome was 65% and each outcome exceeded the benchmark by scoring 78%. Rubrics were not included in the SharePoint; however, it appears as if all four outcomes use the same rubric and assignments for independent outcomes.

C. Closing the Loop Activities

Construction

Because all five outcomes met the benchmarks, no immediate action is being taken and outcomes will continue to be monitored. Although the Program met all benchmarks, taking 'no immediate action' is not a sufficient closing the loop activity. When a department greatly surpasses all benchmarks, they must evaluate the processes. For example, the department could evaluate the benchmark threshold, assignment, and rubrics. Additionally, there is no calendar for future assessments.

Design

Because the four outcomes assessed met the benchmarks, no immediate action is being taken and outcomes will continue to be monitored. Although the Program met all benchmarks, taking 'no immediate action' is not a sufficient closing the loop activity. When a department greatly surpasses all benchmarks, they must evaluate the processes. For example, the department could evaluate the benchmark threshold, assignment, and rubrics. Additionally, there is no calendar for future assessments.

Table 7: Timeline for Course Learning Outcomes

Evidence Collected	Course
Fall 2011	ADC 101, ADC 103, ADC 109*, ADC 112, ADC 159*, ADC 160, ADC 163**, ADC 192*, ADC 209*, ADC 236**, ADC 237**, ADC 253,
Spring 2012	ACD 254
Fall 2012	ADC 136
Spring 2013	ADC 146
Fall 2013	
Spring 2014	
Fall 2014	
Spring 2015	
Fall 2015	

*FMD Only

**FMC Only

D. QVIs/335s

The Program is up-to-date on all Act 335s. QVIs for the program from 2012 through 2014 were evaluated for this audit. The Department combined the two programs for the 2012 and 2014 QVIs and separated the programs for the 2013 QVIs. The Construction

and Design QVIs from 2013 were averaged in order to compare them to the 2012 and 2014 QVIs. The QVI scores reflect the program quality and viability at a specific point in time. Although certain areas may have changed since the Program was scored, scores from the past remain on record.

The Programs recorded a Quality score of 3.3 in 2012, which increased to a 4 in 2013; by 2014, however, the Quality score dropped to two. The decrease in score can be explained by the lack of documentation relating to assessment of program level student learning outcomes. Over the same time period, the Programs experienced a decrease in Viability from 3.5, to 2.6, to 2. The decrease can be attributed to weak retention and number of degrees awarded.

E. Advisory Committee

Facility Management has one advisory committee for both programs that meets annually. The AC's current configuration includes a local consultant, an individual in the industry, a former student, and a faculty member from a local university. Conversations have focused on enrollment growth and program size, Perkin's Funding, retention, developments in the field, software, maintaining program quality, possible internships, lecture series/ panel discussions, tracking graduates, creating an alumni network, IFMA scholarships, creation of a student organization, possible articulation agreements, assessment, and course revisions.

VI. Resources

The ADC department has a suite of rooms in W2-1 which, in addition to faculty offices, contains the following

- A Design Studio for studio courses, augmented with computer access for research and visual presentations.
- A computer lab in which computer graphics courses are held.
- A computer lab in which other content courses are held.
- A presentation work space area for students to work in when class is not in session, and for final presentations.

The Department also uses a range of industry standard software including AutoDesk products (AutoCAD, REVIT), Adobe products (InDesign, Photoshop, Illustrator), SketchUP and WinEST. This software is purchased and supported through Perkins Local Plan funding for career programs.

VII. Demand

Locally, one college in the area (Temple University) aside from CCP offers a program (at any level) in facilities management. In its current form, the College's Program cannot develop an articulation agreement with Temple due to Temple's rigorous curriculum. Temple's Facilities Management Program is housed within the architecture department and requires students to take Differential and Integral Calculus and Physics. Changes would need to be made to the curriculum for the program to pursue program to program articulation agreements with Temple. Program faculty note that students wishing to transfer to Temple's program are "individually advised to progress along the Math sequence at CCP, in order to prepare for these courses." IPED's College Navigator lists four universities nationwide that offer a bachelor's degree in Facilities Management and three schools nationwide offering an associate's in Facilities Management.

CCP's Facilities Management Programs train graduates to transfer and/ or enter a variety of occupations. Administrative Service Managers and Property, Real Estate, and Community Association Mangers are two areas commonly entered by program graduates. Nationwide, both of these areas are growing at a rate around the national average. However, locally Administrative Service Manager jobs are growing at a slower pace. Approximately 40% of employees in these jobs have some college or an associate's degree, while less than 30% have a bachelor's degree.

Table 7: Expected Job Growth

	2014-2024 Job Outlook			Av. Yearly
Occupation	**Philadelphia**	**MSA**	**USA**	**Salary**
Administrative Service Managers	4.70%	7.90%	12.80%	$104,320.00
Property, Real Estate, and Community Association Managers	10.80%	11.20%	11.10%	$70,820.00

Table 8: Educational Attainment

Occupation	**HS Diploma or Less**	**Some College**	**Associate's**	**Bachelor's**	**Graduate**
Administrative Service Managers	19.00%	29.10%	11.30%	27.60%	13.10%
Property, Real Estate, & Community Association Managers	24.60%	27.60%	9.10%	28.70%	10.00%

VIII. Operating Costs

In four out of the past five years, the operating costs for the programs appear to have been combined. This practice stopped in the 2012-2013 school year. However, the practice makes it impossible to compare the cost of the programs and makes it difficult to compare the costs from one year to the next. It is evident from the cost data that the operating costs are higher than the average cost for the Division and the College.

Both Programs belong to the International Facilities Management Association Foundation. Accreditation fees are $950 per year, which is up from $600 the first year. The Programs are up for re-accreditation in 2016 and the College will be required to pay travel expenses, meals, etc. for site visitors.

	2008-2009	**2009-2010**	**2010-2011**	**2011-2012**	**2012-2013**
Facilities Management Construction	N/A	N/A	4028.35	4056.26	4410.34
Facilities Management Design	4285.65	3030.14	N/A	N/A	4570.81
Liberal Studies	3508.63	3270.76	3226.12	3594.88	3723.48
College	3553.11	3400.02	3493.27	3776.11	3961.96

IX. Findings and Recommendations

1. The department should create a program to accommodate students from the Construction Management, Facilities Management Design, Facilities Management Construction, and Computer Assisted Design students (and possibly Building Science).

The programs within the department have major overlaps in jobs, courses, and outcomes. In a survey of programs at the two and four year level, many schools had programs in one of these areas, but none had as many as CCP. Additionally, in many of these programs at the four year level; the first two years were largely the same courses. The markets (education and employment) do not appear to need the fine-grained divisions among disciplines at the two year level. While those with more education and/or experience may find, eventually, that there are specializations within the field; these divisions do not exist at the undergraduate level. A single AAS program would suffice, perhaps with options presented for students based on their interests, in a model similar to the Justice Program. The program should determine the value of accreditation, and if this has any bearing on the combined program. The above is only one proposal; the department may wish to present an alternative plan for consolidation.

Provide Alternative Plan

Timeline: June 2015

Persons Responsible: Department Head

Program Created to Accommodate other ADC Students

Timeline: Fall 2015

Persons Responsible: Department Head, Program Faculty, Dean of Liberal Studies

2. Improvements in Assessment.

The department needs to further examine its assessment practice. Standards for student success are quite low (65%), some outcomes are not accounted for in the curriculum maps and others are being assessed by courses not indicated on the map at all. In almost all instances students are achieving outcomes and there is no plan for continuous improvement. Closing the loop activities (changes to teaching, courses, or programs based on student performance data) must be completed and uploaded to SharePoint. Timeline for assessment must be updated.

Timeline: Summer 2015

Responsible Persons: Program Faculty

Community College of Philadelphia

Academic Program Audit

Computer Assisted Design Technology A.A.S.
Computer Assisted Design Technology Academic Certificate

Authors:
Christine McDonnell
John V. Moore III

Contributors:
Miles Grosbard

Date: April, 2015

I. Executive Summary

The College offers two programs in Computer Assisted Design Technology: Computer Assisted Design Technology A.A.S. and Computer Assisted Design Technology Academic Certificate. The degree prepares graduates to enter the professional and technical services as drafters and technicians, primarily in architecture, engineering and construction, or in architectural animation. The certificate program prepares graduates interested in the field of computer-assisted design technology, current workers desiring more training, and those with a background in related technical fields for careers as documentation drafters and technicians. The program underwent its most recent revision in 2003.

Enrollment in the Computer Assisted Design Degree Program has averaged 113 students each fall over the last five years, the Certificate averaged four over the same time period. The Programs enroll a disproportionate population of males. Students in the Degree Program are generally younger and less likely to be college ready compared to the Division and the College.

The Computer Assisted Design Degree Program posts weaker outcomes than the Division and College in many areas including: standing, retention, graduation, success at departure, and course completion.

In the past five years, 10 degrees and one certificate have been awarded. Although the focus of the Degree Program is not transfer, 24% of students who left the Program in the last five years transferred (58 students). The majority of these transfers occurred among students with zero to 12 credits.

Within the department there is considerable overlap among the Computer Assisted Design courses and program level outcomes.

The Computer Assisted Design Degree has assessed all five of the Program Learning Outcomes and the Certificate has assessed all four PLOs, both Programs have uploaded some supporting information into SharePoint. Both Programs need to evaluate the level of their benchmark, clarify the assessment process and upload independent rubrics for each outcome. Additionally, since the Programs met all of their benchmarks, no closing the loop activities were performed.

Over the next ten years, jobs in Drafting are projected to decrease in the Philadelphia area, yet remain steady nationally.

Over the past five years, the Degree Program's operating costs have exceeded the average operating costs for the College and the Division.

Due to the Programs' low number of degrees awarded, poor retention, overlap in courses and program learning outcomes, lack of assessment documentation, shrinking local job market, and high program cost, we recommend that this program be closed.

II. Program Description from College Catalog

The College offers two programs in Computer Assisted Design Technology: Computer Assisted Design Technology A.A.S. and Computer Assisted Design Technology Academic Certificate.

Computer-Assisted Design, or CAD, is a field that utilizes specialized computer software to graphically communicate (or "draft") ideas into technically precise drawings. CAD drafting is used in the design and documentation process by architects and engineering and construction professionals. Additionally, the software is used to create the three-dimensional images used in animation and rendering. In this program, students master the CAD software packages used most commonly in design, documentation, and presentation. The program places an emphasis on the architecture, design, and building construction fields.

The degree program is designed to help students develop strong, marketable skills. Students acquire excellent computer graphic skills, as well as the technical background that allows for accurate, informed decisions. Students become versatile draftsmen and drafts women who have diverse job opportunities. Graduates are prepared to enter the professional and technical services as drafters and technicians, primarily in architecture, engineering and construction, or in architectural animation. Drafters translate ideas, sketches, and technical information into complete, accurate drawings needed to make buildings, structures or products. Technicians assist design, construction, or art professionals to create renderings and animations or other three-dimensional simulations. They also can create the computer drawings and data required for the execution of creative ideas in a wide range of disciplines, such as film and industrial design. Graduates may also become CAD software support specialists, customizing software for specific companies or providing technical support to the computer users.

The certificate program prepares students interested in the field of computer-assisted design technology, current workers desiring more training, and those with a background in related technical fields for careers as documentation drafters and technicians. Entry-level documentation drafters and technicians assist design professionals in architecture, engineering, and construction. Drafters translate ideas, sketches, and technical information into complete, accurate drawings needed to make buildings, structures or products. Technicians assist design, construction or art professionals to create renderings and animations or other three-dimensional simulations.

Department faculty are dedicated to helping each student develop strong, marketable skills. Students acquire excellent computer graphic skills and the technical background that allows for accurate, informed decisions. Students become versatile drafts-people who have diverse job opportunities. The certificate is offered for students interested in a short-term career preparatory experience. All courses required for the certificate also apply to the A.A.S. degree, so students have the option of continuing in the degree program.

A. History and Revisions to the Curriculum

The program underwent its most recent revision in 2003. Apart from the program revision, the department undertook many course revisions in the last five years. ADC 101 (Intro to Design and Construction) and ADC 103 (CAD Basics) were revised to meet technological competency requirements of the general education standards. ADC 112

(Construction Materials and Detailing: Properties) and ADC 212 (Construction Materials and Detailing: Methods) were updated to include more “green” and sustainable design, material selection, and construction methods. ADC 136 (Building Codes) was revised to include construction safety, and the placement level was changed. ADC 160 (Presentation Techniques) was updated to include digital media. ADC 253 (Environmental Systems I) was updated to focus on sustainability and mechanical, electrical, and plumbing system design. ADC 254 (Environmental Systems II) filed a course addendum to change the prerequisites.

B. Curriculum Sequence (Computer Assisted Design Technology Degree)

Course Number and Name	Pre & Co-requisites	Credits	Gen Ed Req.
First Semester			
ADC 101 - Introduction to Design and Construction		3	Tech Comp*
ADC 103 - CAD Basics		3	Tech Comp*
ADC 109 - Design Studio I		4	
MATH 137 - Geometry for Design1 or higher		3 or 4	Mathematics
ENGL 101 - English Composition I		3	ENGL 101
Second Semester			
ADC 112 - Construction Materials and Detailing: Properties	ADC 103 or ADC 109	3	
ADC 159 - Design Studio II	ADC 103, ADC 109	4	
ADC 163 - Digital Documentation in Architecture & Construction	ADC 103	3	
ENGL 102 - The Research Paper	ENGL 101 with a grade of "C" or better	3	Info Lit
ADC 160 - Presentation Techniques	ADC 103, ADC 109	3	
Third Semester			
Two Directed Elective		6	
CIS 105 - Computer Systems Maintenance		3	
ADC 263 - Digital Animation and Rendering	ADC 103 or ART 150	3	
ADC 260 - Advanced Presentation Techniques	ADC 160 & ADC 209 or ADC 163 which may be taken concurrently	3	
Social Science Elective[1]		3	Social Science
Fourth Semester			
Science Elective[1]		3 or 4	Natural Science
Directed Elective[2] - select two from the list above		6	
ADC 273 - Advanced CAD Applications	ADC 163	3	
Humanities Elective		3	Humanities
Social Science Elective		3	
Minimum Credits Needed to Graduate: 65			

Directed Elective - Select two of the following:

ADC 136 - Building Codes	ADC 226 - Structures I - Analysis	ADC 253 - Environmental Systems I
ADC 186 - Surveying	ADC 227 - Structures II - Design	ADC 254 - Environmental System IIs
ADC 212 - Construction Materials and Detailing: Methods	ADC 246 - Contracts and Specifications	ADC 286 - Building Rehab & Energy Retrofit

B2. Curriculum Sequence (Computer Assisted Design Technology Certificate)

Course Number and Name	Pre & Co-requisites	Credits
First Semester		
ADC 101 - Introduction to Design and Construction		3
ADC 103 - CAD Basics		3
ADC 112 - Construction Materials and Detailing: Properties	ADC 103 or ADC 109	3
ENGL 101 - English Composition I		3
Math 137 - Geometry for Design or higher level mathematics course	Math 118 placement	3 or 4
Second Semester		
ADC 163 - Digital Documentation in Architecture and Construction	ADC 103	3
Select one course from the following:		3
ADC 136 - Building Codes	ENGL 101 must be taken concurrently or prior	
ADC 212 - Construction Materials and Detailing: Methods	ADC 103 or ADC 109	
ADC 226 - Structures I - Analysis	ADC 101 and Math 118 or higher	
ADC 246 - Contracts and Specifications	ADC 101	
ADC 253 - Environmental Systems I	ADC 101 and ADC 103 or ADC 109	
CIS 105 - Computer Systems Maintenance		
ADC 263 - Digital Animation and Rendering	ADC 103 or Art 150	3
Humanities/Social Science Elective		3
ADC 273 - Advanced CAD Applications	ADC 163	3
ENGL 102 - The Research Paper or	ENGL 101 with a grade of "C" or better	3
ENGL 112 - Report and Technical Writing		
Minimum Credits Needed to Graduate:		**33**

C1. Curriculum Map (Degree)

Computer Assisted Design Program Student Learning Outcomes	ADC 101	ADC 103	ADC 109	ADC 112	ADC 159	ADC 160	ADC 163	ADC 260	ADC 263	ADC 273
Develop drawings and models utilizing manual and computer drafting in both two and three dimensions.	I		I A	R	R A		R A		R A	M A
Interpret architectural and construction drawings and documents.	I	I	I	R A	R	R A	M	M A		M A
Develop solutions for design and construction problems by utilizing graphic techniques including rendering and animation.	I	I	I A		R A	R A	R A		R	M A
Demonstrate knowledge of various building materials and methods and related building technologies.	I			R A			R	R	R	
Communicate effectively and work as part of a team using graphic, oral and written modes.	I	I A	I A		R A	R A		M A	M A	

C2. Curriculum Map (Certificate)

Computer Assisted Design Academic Certificate Student Learning Outcomes	ADC 101	ADC 103	ADC 112	ADC 160	ADC 163	ADC 263	ADC 273
Develop drawings and models utilizing manual and computer drafting in both two and three dimensions.	I		R		R A	R A	M A
Interpret architectural and construction drawings and documents.	I	I	R A	R A	M		M A
Demonstrate knowledge of various building materials and methods and related building technologies.	I		R A		R	R	
Communicate effectively and work as part of a team using graphic, oral and written modes.	I	I A		R A	M A	M A	

C. Future Direction for the Field/ Program

Computer-Assisted Design remains a fluid field, with many changes in technology and job demands. Foremost, the implementation of Building Information Management (BIM) software, specifically Autodesk Revit, has become the core software for architecture, construction management and facility management. With Revit a detailed building model is created before construction starts: the platform also allows collaboration across disciplines before, during, and after building construction.

The CADT program requires two courses focused on Revit, ADC 163 (Digital Documentation in Architecture and Construction) and 273 (Advanced CAD Applications), to respond to the industry demand for proficiency. The department was contacted by the engineering firm building the new Comcast Tower, who is looking to hire five to six new employees and train them to create a Revit model of the building, the outcome of this conversation is unclear.

III. Profile of the Faculty

A. Program Faculty

Faculty	Position	Recent Courses Taught
Miles Grosbard, Ed. D., M. Arch	Department Chair Professor	*ADC 209, ADC 259, ADC 176,*
Arthur E Wolf, MS, MBA	Program Supervisor Visiting Lecturer	
Paula Behrens, M. Arch.	Professor	*ADC 109, ADC 112*
Anthony Palimore, M. Arch.	Assistant Professor	*ADC 103, ADC 254*
Michael Stern, M. Arch.	Assistant Professor	*ADC 159, ADC 192, ADC 260, ADC 212*
David Bertram, M. Arch.	Instructor	*ADC 103, ADC 227, ADC 237, ADC 163, ADC 101*
David Tinley, M. Arch	Adjunct	*ADC 136, ADC 146, ADC 186*
Elizabeth Masters, M. Arch, AIA	Adjunct	*ADC 112*

B. Faculty Engagement

Faculty members have been participants in some of the College's Center for International Understanding initiatives. Over the past three years one faculty member has been selected for two National Endowment for the Humanities "Bridging Cultures" initiatives, one on East Asia and the second on South Asia. Faculty members have made presentations to students and fellow faculty while integrating lessons learned into the department's courses. Another faculty member was selected for a Department of Education grant on East Asia for the 2014-15 academic year. These initiatives reflect the rich diversity of our department's students and the College's mission statement.

Full time faculty members have been actively developing their skills through engaging the larger community. In developing the new course "Philadelphia History: Architecture and Planning," created in collaboration with the History department, faculty have engaged with the history and historic preservation communities of Philadelphia. Another faculty member has completed training in Leadership in Energy and

Environmental Design (LEED) a central concern in sustainability and construction. Part-time faculty members are active professionals and members of the American Institute of Architects (AIA). One is president-elect of the Pennsylvania AIA chapter, while two others having thriving architectural practices: all energize the classroom. One part-time faculty member also teaches in the Facilities Management program at Temple University (forming a "bridge" to that program) and is a member of the International Facilities Management Association.

IV. Program Characteristics

A. Student Profile

Enrollment in the Computer Assisted Design Program has averaged 113 students each fall over the last five years and is on an upward trend. Over the same time period, enrollment in the Certificate Program has averaged four students each fall over the last five years, and experienced fluctuation. During the same time period, enrollment in the Division decreased and enrollment in the College remained flat.

Table 1: Headcounts

		Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	5 Year Average	5 Year Change
CADT	Headcount	104	101	114	122	126	113	21%
	FTE Headcount	78	77	86	90	90	84	15%
CADT-Cert	Headcount	3	4	2	7	5	4	67%
	FTE Headcount	5	8	4	9	10	7	100%
Liberal Studies	Headcount	8892	8711	8717	8216	8059	8,519	-9%
	FTE Headcount	6313	6175	6137	5745	5649	6,004	-11%
College	Headcount	19047	19502	19752	18951	19065	19,263	0%
	FTE Headcount	13361	13697	13682	13106	13163	13,402	-1%

Both CAD Programs record demographic differences between their students and students in the Division and the College. Both Programs enroll a higher proportion of males (almost double) compared to the Division and the College. However, percent of women in the programs (27% (AAS) and 24% (AC)) both exceed the percent of female drafters nationwide (22%). Both Programs enroll a higher proportion of Asian and multiracial students, and a lower proportion of African American and Caucasian students compared to the Division and the College. The programs enroll a higher percentage of students aged 16-21. Both Programs enroll a lower proportion of college-ready students.

Table 2: Demographics

Demographics: Running 5 Year Average

	CAD-Degree	CAD-Certificate	Liberal Studies	College
Female	27.6%	23.5%	62.0%	64.2%
Male	71.5%	76.5%	37.5%	35.4%
Unknown	1.4%	0.0%	0.5%	0.5%
Native American	0.0%	0.0%	0.5%	0.4%
Asian	9.2%	22.0%	4.9%	7.3%
African American	42.7%	30.5%	49.9%	48.8%
Latino/a	16.1%	8.5%	10.9%	10.5%
Multiracial	4.1%	5.1%	2.5%	2.3%
Pacific Islander	0.1%	0.0%	0.2%	0.2%
Unknown	9.0%	6.8%	6.9%	6.8%
Caucasian	18.8%	27.1%	24.3%	23.8%
16 – 21	50.5%	43.7%	32.7%	32.5%
22 – 29	35.2%	18.9%	35.1%	36.6%
30 – 39	8.3%	13.1%	15.4%	17.0%
40 +	5.9%	24.3%	15.8%	13.0%
Unknown	0.3%	0.0%	0.9%	0.9%
Full Time	37.1%	15.3%	33.9%	31.2%
Part Time	62.9%	84.7%	66.1%	68.8%
All Developmental	28.5%	62.1%	29.3%	28.3%
Some Developmental	53.1%	20.8%	47.3%	43.9%
College Level	18.5%	17.1%	23.5%	27.8%

The Computer Assisted Design Degree Program posts weaker outcomes than the Division and College in many areas. A lower proportion of students in the Degree program are in good academic standing. Fall-Fall and Fall-Spring retention are lower than the Division and the College, and students in the Degree Program change majors at a higher rate than in the Division and College (However, students who are unable to meet the requirements of Architecture and Interior Design (select programs) may be using CAD to meet requirements for these programs before transferring in.) The Program's graduation rate is approximately one fifth that of the Division and College and a higher proportion of students leave the Program unsuccessfully compared to the Division and College. Program Course completion and GPA are marginally lower than the averages for the Division and College.

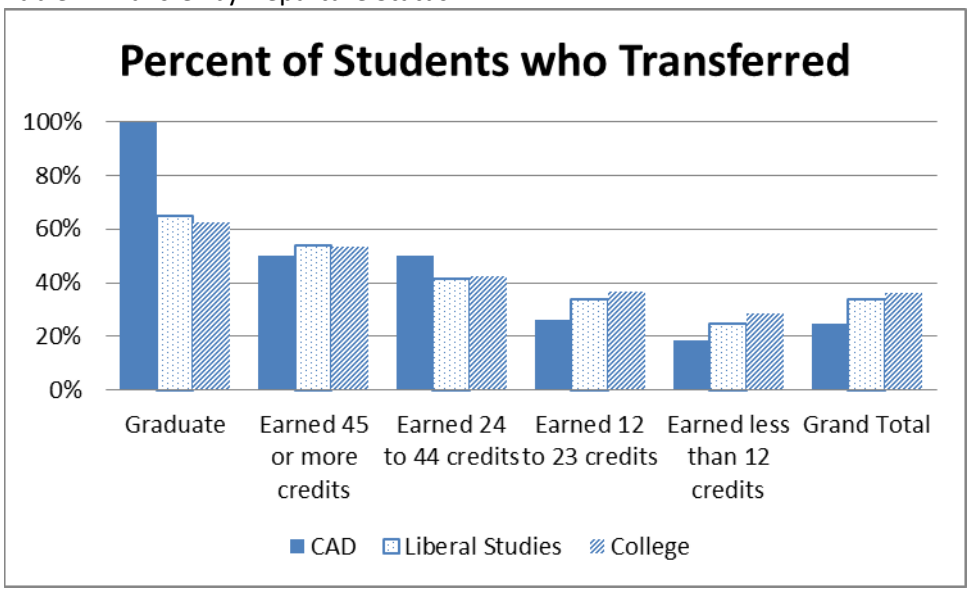
Outcomes for the CAD Certificate are generally stronger than those for the Division and College. A higher proportion of students are in good academic standing; the Certificate records a graduate rate approximately triple that of the Division and College and the average GPA is higher than the Division and College. However, retention, changing majors, and success at departure show weaker outcomes.

Table 3: Outcomes Data: 5 Year Averages

		CAD-Degree	CAD-Certificate	LS	College
Standing	Good Standing	80%	97%	83.7%	85.0%
	Probation	19%	3%	14.6%	13.5%
	Dropped	2%	0.0%	1.6%	1.6%
Fall-Spring Retention	Returned/Same	58.9%	44.3%	64.4%	65.8%
	Returned/Different	11.9%	8.2%	6.4%	5.2%
	Graduated	0.7%	0.0%	2.4%	2.1%
	Did Not Return	28.5%	47.4%	26.8%	26.9%
Fall-Fall Retention	Returned/Same	31.7%	16.4%	35.9%	36.7%
	Returned/Different	20.8%	6.2%	9.7%	8.6%
	Graduated	1.8%	0.0%	8.5%	8.4%
	Did Not Return	45.7%	77.3%	45.9%	46.4%
Success at Departure	Graduated	2.3%	32.0%	10.5%	10.0%
	Long Term Success	30.7%	4.0%	37.3%	36.2%
	Short Term Success	14.9%	0.0%	14.3%	17.2%
	Unsuccessful	52.1%	64.0%	37.9%	36.6%
Course Outcomes	Course Completion	82%	88%	87.4%	88.2%
	GPA	2.55	3.32	2.66	2.65

Computer Assisted Design is an A.A.S. and, therefore, the focus of this program is direct-to-work as opposed to transfer. Fifty-eight out of 182 students (24%) transferred during the five year time period. The majority (31) of the transfers occurred with students earning zero to 12 credits.

Table 4: Transfer by Departure Status

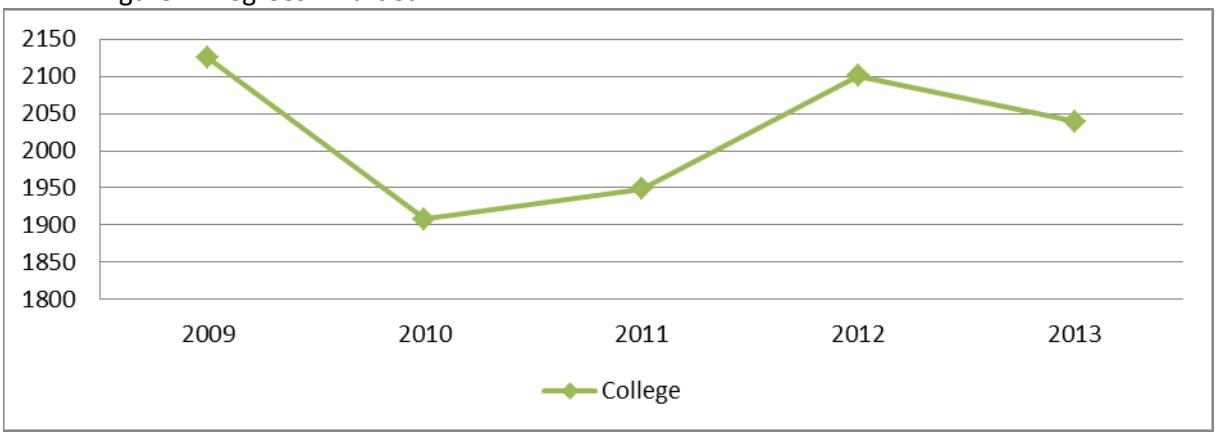


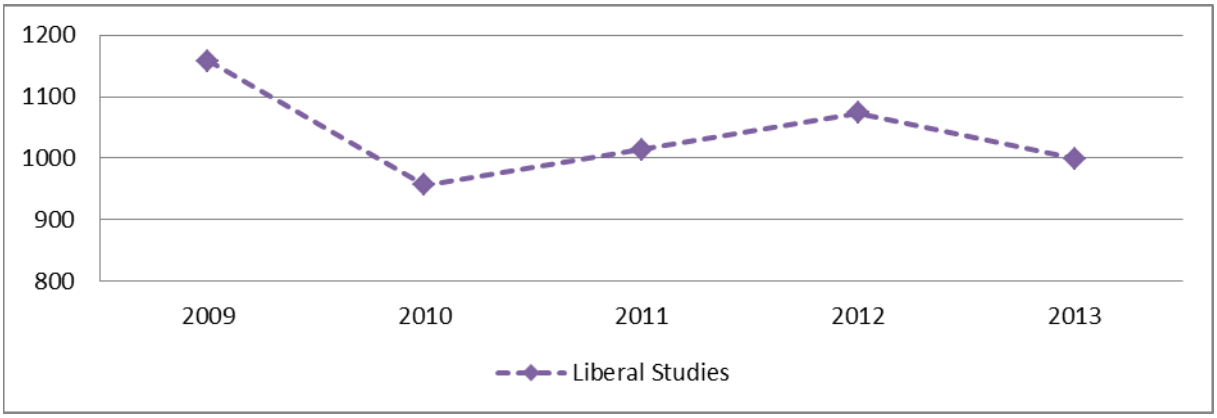
Ten associate's degrees and one Certificate have been awarded over the past five years in Computer Assisted Design Programs.

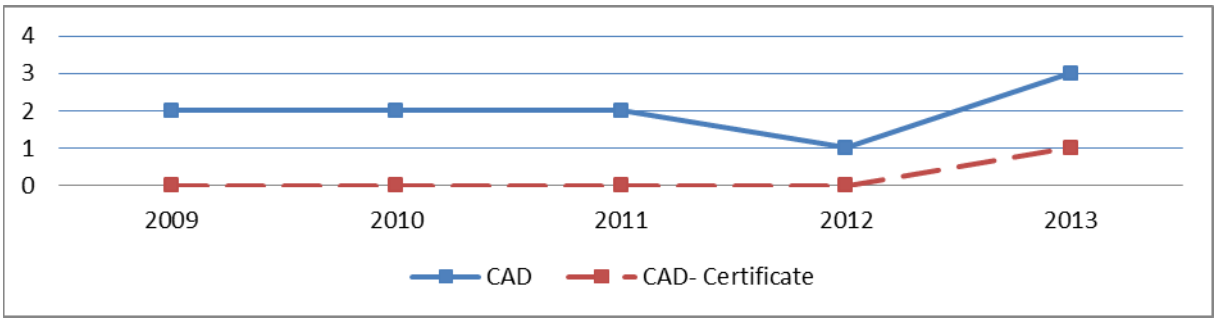
Table 5: Degrees Awarded

	2009	2010	2011	2012	2013	Total
CAD	2	2	2	1	3	10
CAD- Certificate	0	0	0	0	1	1
Liberal Studies	1158	956	1014	1073	999	5200
College	2125	1908	1949	2101	2039	10122

Figure 2: Degrees Awarded

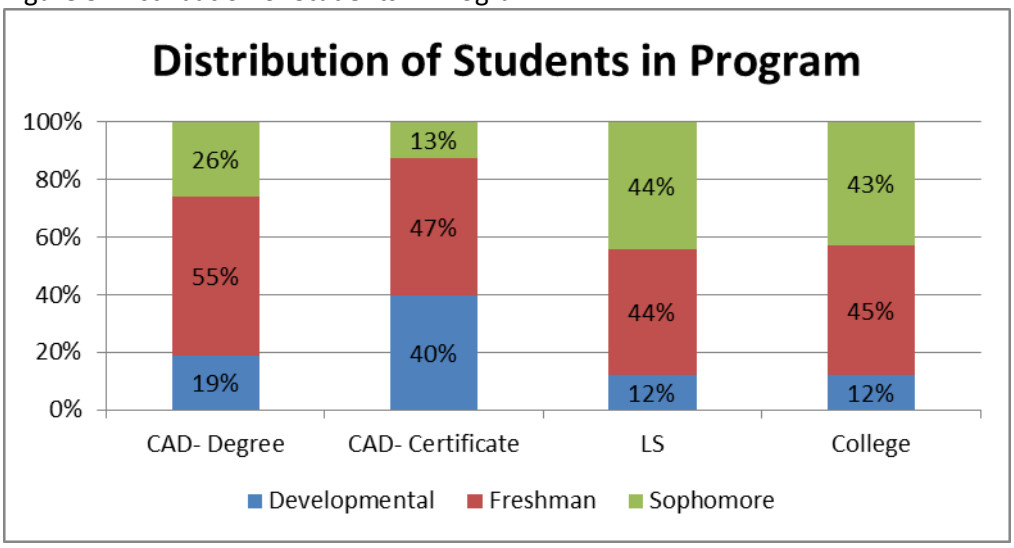






The College and Division record an almost equal number of freshmen as sophomores. However, within the Computer Assisted Design Program, there are 29% more freshmen than sophomores. This could be explained by a high proportion of students needing additional developmental coursework.

Figure 3: Distribution of Students in Program



Courses offered by the program run slightly less efficiently (73%) than those of the Division (83%) or the College (84%).

However, in examining the program's courses, it is clear that many are shared across all the programs in the department (Computer Assisted Design A.A.S, Facilities Management Construction A.A.S., Facilities Management Design A.A.S., Construction Management A.A.S., Architecture A.A., Interior Design A.A., and Building Science A.A.S.) These programs generally require between 20 and 22 courses to obtain the degree, which include six general education requirements and 14 to 16 program specific courses. Facilities Management Construction, Facilities Management Design, Construction Management, Computer Assisted Design, and Building Science all require the same general education requirements, while architecture requires a different mathematics course.

- Computer Assisted Design and Facilities Management Construction share between 10 and 14 courses.
- Computer Assisted Design and Facilities Management Design share between 12 and 14 courses.
- Computer Assisted Design and Architecture share 12 to 14 courses.
- Computer Assisted Design and Interior Design share 12 to 14 courses.
- Computer Assisted Design and Building Science share 10 to 15 courses.
- Computer Assisted Design and Construction Management share 10 to 17 courses.

Table 6: Section Enrollments

Architecture, Design and Construction

		Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall Average	Spring Average
Program	Sections	24	27	28	32	36	35	28	31	24	28	28.00	30.60
	Avg Enrollment	21.54	20.26	20.79	21.13	18.72	18.94	19.21	21.71	18.92	19.71	19.84	20.35
	Percent Filled	77%	72%	73%	76%	69%	69%	69%	74%	68%	73%	71%	73%
Division	Sections	1439	1518	1549	1673	1666	1662	1620	1646	1473	1464	1549.40	1592.60
	Avg Enrollment	20.22	20.65	21.55	21.31	20.81	21.23	20.75	20.72	21.45	21.29	20.96	21.04
	Percent Filled	81%	82%	86%	86%	83%	84%	82%	81%	84%	82%	83%	83%
College	Sections	2694	2829	2881	3096	3023	2940	2939	3007	2756	2738	2858.60	2922.00
	Avg Enrollment	21.15	21.22	22.29	21.97	21.87	22.13	21.84	21.63	22.23	22.06	21.88	21.80
	Percent Filled	83%	83%	87%	86%	85%	85%	84%	83%	86%	84%	85%	84%

V. Learning Outcomes and Assessment

A. Program Learning Outcomes

Upon completion of the Computer Assisted Design Degree Program graduates will be able to:

1. Develop drawings and models utilizing manual and computer drafting in both two and three dimensions.
2. Interpret architectural and construction drawings and documents.
3. Develop solutions for design and construction problems by utilizing graphic techniques including rendering and animation.
4. Demonstrate knowledge of various building materials and methods and related building technologies.
5. Communicate effectively and work as part of a team, using graphic, oral and written modes.

Upon completion of the Computer Assisted Design Certificate Program graduates will be able to:

1. Develop drawings and models utilizing computer drafting in both two and three dimensions.
2. Interpret architectural and construction drawings and documents.
3. Demonstrate knowledge of various building materials and methods and related building technologies.
4. Communicate effectively and work as part of a team, using graphic, oral and written modes.

Computer Assisted Design shares three Program Learning Outcomes with Facilities Management, two with Architecture, one with Facilities Management Design, and one with Interior Design.

B. Assessment

Degree Program

The Computer Assisted Design Degree has assessed all five of the Program Learning Outcomes and uploaded some supporting information into SharePoint. All outcomes assessed met the benchmarks of 65% of students achieving a good or excellent score on the assessments.

One issue is a lack of continuity in the documents indicating which courses feed into the outcomes. There are three different areas of SharePoint that identify courses assessed for each outcome. However, there is often a misalignment between the three documents regarding which courses feed into which outcomes. For example, the fourth outcome lists assessment occurring in different courses in the SharePoint Program Level Assessment page (112 and 163), curriculum map (ADC 112), and the uploaded Program Level SLO Summary in the SharePoint (ADC 163, 260, 263). Either changes need to be made to the curriculum map or changes need to be made regarding which courses are assessed.

Additionally, looking at the sources of evidence in SharePoint, it is not clear which sources of evidence and rubrics are being used to assess each outcome.

Certificate
The Computer Assisted Design Certificate has assessed all four Program Learning Outcomes and uploaded the information into SharePoint. All outcomes assessed met the benchmarks of 65% of students achieving a good or excellent score on the assessments. There are no supporting documents uploaded into the SharePoint for the certificate program, making it difficult to ascertain exactly how the program was assessed.

Degree and Certificate
Both programs appear to use the same rubric and assignment to assess multiple independent outcomes (outcomes one and two). Neither program posts supporting rubrics in the appropriate folder in SharePoint, therefore it is impossible to tell if rubrics are used for the assignments. However, both outcomes received the same score and evaluated the same three types of assignments (Assignment / Project / Paper 91%, Analysis of Lab and Studio Techniques 72%, Student Demonstration 82%), with an overall average of 82%. Independent outcomes must assess with independent rubrics. The programs' 65% benchmark for the degree and certificate is low.

C. Closing the Loop
The department reported that because all eight outcomes met the benchmarks, no immediate actions are being taken and the outcomes will continue to be monitored. Although the Program met all benchmarks, taking 'no immediate action' is an insufficient closing the loop activity. When a department greatly surpasses all benchmarks, they must evaluate the processes, for example: the benchmark threshold, assignment, and rubrics. An ongoing assessment calendar must also be developed (Table 7, below).

Table 7: Timeline for Course Learning Outcomes

Evidence Collected	Course
Fall 2011	ADC 101, ADC 103, ADC 109, ADC 112, ADC 159, ADC 160, ADC 260
Spring 2012	ACD 163, ACD 263
Fall 2012	ADC 273
Spring 2013	
Fall 2013	
Spring 2014	
Fall 2014	
Spring 2015	
Fall 2015	

D. QVIs/335s

The Program is up-to-date on all Act 335s. QVI's for the program from 2013 through 2014 were evaluated for this audit. QVI's were not performed in 2012 because the Program was originally scheduled for audit in 2012 and QVI's are not performed during audit years. The QVI scores reflect the program quality and viability at a specific point in time. Although certain areas may have changed since the Program was scored, scores from the past remain on record.

The Program recorded a quality score of four in 2013; by 2014 the score had dropped to two. The decrease in score can be explained by the lack of documentation relating to assessment of program level student learning outcomes. Over the same time period, the Program experienced a decrease in viability from three in 2013 to one in 2014. The decrease in quality score can be attributed to the poor graduation rates, retention, and the small number of degrees awarded. It must be noted that fluctuations in small programs may appear deceptively large when percentages are calculated.

E. Surveys

An insufficient number of CAD students have responded to the graduation survey conducted by Institutional Research to make valid inferences from the data (N=7).

F. Advisory Committee

The Program's advisory committee meets once a year; five individuals from the industry participated in the meeting in 2012, four in 2013, and three in 2014. Recent discussions have focused on student work, upcoming audits, academic performance, program completion, enrollment, Perkins Funding, designing in software and by hand, purchasing software, and faculty retirement, hiring and promotions. Additionally, the committee discussed the need for a CAD-degreed person in the workplace, and the advisory committee could not definitively state whether a degree is required. However, one member of the committee indicated that his former employer hired both degreed and non-degreed employees.

VI. Resources

The ADC department has a suite of rooms in W2-1 which, in addition to faculty offices, contains the following

- A Design Studio for studio courses, augmented with computer access for research and visual presentations.
- A computer lab in which computer graphics courses are held.
- A computer lab in which other content courses are held.
- A presentation work space area for students to work in when class is not in session, and for final presentations.
- A printer room that houses a 3D printer and laser guided cutting machine, funded by the Perkins local plan.

The Department also uses a range of industry standard software including Autodesk products (AutoCAD, REVIT), Adobe products (InDesign, Photoshop, Illustrator), and SketchUp. The purchase of this software is supported through Perkins Local Plan funding for career programs.

VII. Demand

CCP's CAD Program trains graduates enter the field of drafting. Locally, occupations in drafting are projected to decrease (-8.2%) over the next ten years. Nationwide, a small amount of growth is projected (4%), however this growth is still less than the nationwide average job growth of 11%.

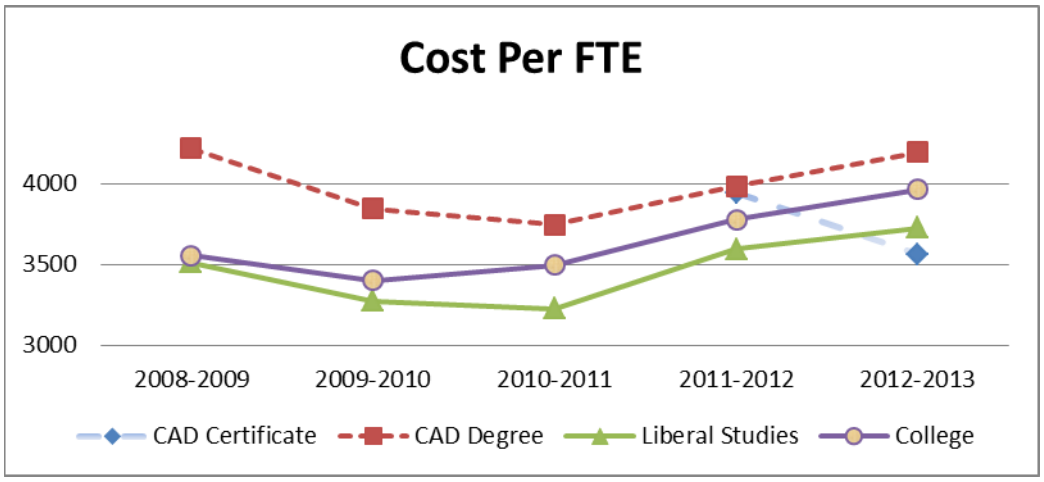
Locally, two institutions in the area (Delaware County Community College and ITT Technical Institute) offer programs in Computer Assisted Design and Architectural Drafting, offering a certificate or associates degree.

Table 8: Job Growth Outlook 2014-2024

Occupation	Philadelphia	MSA	USA	Average Salary 2014
Drafters	-8.20%	-4.70%	4.00%	$48,900

VIII. Operating Costs

Over the past five years, the Degree Program's operating costs have exceeded the average operating costs for the College by between 6 (2012-2013) and 18 percent (2008-2009). Over the past five years, the operating costs for the Degree Program and the average College operating cost have been converging. No operating cost data were available prior to the 2011-2012 school year for the Certificate.



IX. Findings & Recommendations

1. **Close the Computer Assisted Design Technology Degree Program**

   Although program enrollment is high; retention, graduation, and course completions outcomes are poor. The advisory committee has also questioned the need for the degree program. There is considerable overlap between the CAD program and all the other programs in the department in terms of courses and student learning outcomes. The assessment reports do not clearly demonstrate where assessment is taking place and what is being assessed and the Program shows no evidence of closing the loop activities. The QVIs portray a program of decreasing quality and viability. Jobs in Computer Assisted Design are projected to experience negative growth over the coming years. For these reasons, it is recommended that the Computer Assisted Design Program be closed.

   Timeline: No newly admitted students, Fall 2015.
   Last student graduations in CAD. Any remaining students transferred to a new program. Spring 2018.

   Persons Responsible: Department Head, Dean of Liberal Studies

2. **Assess the need for the Computer Assisted Design Technology Certificate Program**

   The last audit (in 2001) recommended evaluating the need for a certificate due to low enrollment and completion; since then, enrollment in the Certificate Program has decreased. One certificate has been awarded in the past five years and over half the students that have left the program in the past five years, did so in poor academic standing. The certificate program has experienced similar challenges as the degree program. The program should continue to offer the courses associated with CAD skills; much like Geographic Information Systems, also offered here, CAD by itself does not appear to lead directly to many jobs. Rather it is a skill set that is added on to an individual with an area of expertise in another functional area. However, by offering only a certificate (academic or proficiency, the program may be able to maintain its size while increasing graduation. It would also be easily added to the other degrees offered in the department.

   The program, if it remains will need to strengthen relationships with local high schools as well as businesses[1] and take a stronger hand in owning students early on in their academic careers to assist with high departure rates early in the program and low graduation rates overall.

   Timeline: Report with recommendations delivered to Dean by end of Fall 2015.

   Persons Responsible: Department Head, Program Faculty

[1] The program faculty mentioned a firm that is engineering the facades of a ten million square foot project in Manhattan is developing a long-term connection with the College's program to cultivate entry-level positions.

TO: Dr. Sharon Thompson, Associate Vice President, Academic Affairs and Dean of Liberal Studies

FROM: David Prejsnar, Coordinator for Religious Studies

Introduction

In light of the findings and recommendations of the Academic Program Audit of the Religious Studies, AA Degree Program the following memo addresses the four areas on which the Student Outcomes Committee of the Board of Trustees requested follow up.

As the Audit report notes, "The department faculty have recently recommitted to the degree and have begun to initiate program management initiatives." Following the meeting with the Student Outcomes Committee of the Board of Trustees, members of the Department of History, Philosophy and Religious Studies met to formulate a plan to respond to the four areas highlighted during the meeting. These four key areas are:

1. Setting an enrollment target
2. Formulating a recruitment strategy
3. Formulating a retention strategy
4. Identifying and building community partnerships

1. Enrollment Target for the Religious Studies program

Over the past month the Department of History, Philosophy and Religious Studies has worked to obtain benchmark figures for the size of Religious Studies programs at other community colleges across the country. The Department has contacted the American Academy of Religion (AAR), the main organization in the academic discipline of Religious Studies, for data on religious studies programs at community colleges. Current data was unavailable from this source. However, an older survey from the AAR (2005), done in partnership with the Community College Humanities Association (CCHA), surveyed community colleges offering an associate degree program in Religious Studies. It found that "the average number of majors for the 2003-2004 academic year was 7.8." Our faculty have also identified ten community colleges with Religious Studies majors, and have emailed/telephoned those programs. The closest community college with a degree program in Religious Studies is Bergen Community College in New Jersey. To date, two programs have responded, but none are local. Both programs that responded have 4 or 5 majors each. This data seems to be in line with numbers for four-year undergraduate institutions (Carnegie type Bachelor Degree granting). According to an AAR report on Undergraduate Religion and Theology programs (1999-2003), the median number of undergraduate majors at these institutions was 13-17 (two different years). Another survey placed the figures somewhat lower at 10-12.

Based on these benchmark figures the number of Religious Studies majors at Community College of Philadelphia is already over the benchmark. However, with the Department recruitment strategy outlined below, the goal is to achieve an increase in the count of students in the program from the 12 students in the program in 2013 to 20 students by the end of the 2015-2016 academic year.

2. Recruitment strategy for the Religious Studies program

The Department has developed and begun to carry out a recruitment strategy for the Religious Studies major. This strategy is based on both recruiting majors from student populations who have demonstrated an academic interest in Religious Studies, such as those students currently taking Religious Studies or similar courses, and those students interested in religion and spirituality through venues such as student clubs, co-curricular activities, and majors fairs. Elements of this strategy include:

- A redesigned brochure and pamphlet for the Religious Studies which will be distributed widely at the Main Campus and at the Regional Centers. In addition to distributing the brochure, faculty will present information to their current students about the Religious Studies program.

- The Department has recently developed and submitted a proposal for the earning of Departmental Distinction in Religious Studies for select graduating students, beginning in 2015-2016. Once this conferral of academic Distinction receives final approval from the Office of Academic Affairs, it will be promoted across campus, including in all Religious Studies classes and the areas of Academic Advising and Counseling, and used to help with both recruitment and retention of students.

- The Department will sponsor at least two events each semester designed to attract new students to the Religious Studies Major and courses, as well as contribute to the academic life of the institution. The first event will be held this semester, on April 17 from 11:30 – 12:30. Prof. Osvil Acosta-Morales of the History/Philosophy/Religious Studies Department will present a talk on "Learning as a Spiritual Journey." This will be an opportunity for students in the major or taking Religious Studies courses to talk to Department faculty, and also to meet other students. During the third week of classes in the fall a social gathering will be held for students currently in the major or those with an interest in Religious Studies.

- The Department has obtained a list of current active clubs and organizations from Student Life. It has identified those clubs whose mission might include an interest in the areas of religion, spirituality, and global cultures -- African Cultures and Traditions Club, Anime Club, Christian Women's and Men's Alliance, Gospel Choir Club, and Muslim Student Association. Information will be sent by the Department to those clubs, members of the Department will meet with the clubs and organizations, and they will be invited to attend events related to religion sponsored by the Department.

- The brochure on the College's Religious Studies program will be distributed at special co-curricular events with a relation to religion and spirituality, for example, events during March and April 2015 such as the International Festival, and grant-funded programs from the National Endowment for the Humanities and the United States Department of Education.

- The Department will continue to participate in the College's Majors Fairs held every semester.

- The Department will contact faculty and students associated with the non-credit Faith and Spirituality Based Counseling program in order to disseminate information about credit Religious Studies courses and the major. Students will be encouraged to consider taking credit courses, and possibly majoring, in Religious Studies.

3. Retention strategy for the Religious Studies program

Three key aspects of the retention strategy are obtaining information from current and recent students on factors influencing their persistence in the program, obtaining feedback from stakeholders in the areas of transfer and careers for our students, and improving retention with better early alert activity and advising. In particular:

- The Department has designed survey instruments to assess current students' interest in Religious Studies, their career and transfer goals, and factors influencing success and retention. Once approved, surveys will be sent out to all current students in the Program, students graduated or transferred, students who left the program through switching curriculum, and to students who left the College without transfer. It is expected that the survey results will help identify factors influencing retention.

- The Department will form an external advisory council consisting of chairs and faculty members from Religious Studies programs at local transfer institutions, and members of the local faith-based community. The initial meeting of the council is planned for 9:00 am on May 6. The advisory council will be designed in part to begin a process of closer coordination. In particular, the advisory council will be asked to give guidance and feedback on changes in the field, possible improvements to the Program, and future steps to allow our students to have more successful transfer and career outcomes.

- In order to identify in a more timely manner students in the Program in academic difficulty, the Program Coordinator will use Banner to track students who are showing signs of academic difficulty, especially in the required core courses in Religious Studies, Philosophy, and the Social Sciences. The Program Coordinator will reach out to students who might be struggling, and encourage them to come in for individual advising appointments. The Department will also redesign the advising worksheet to include recommended advising check-points to review Program progress and obstacles.

4. Identifying and building community partnerships

While Community College of Philadelphia is not a faith-based institution, many of our students are active in faith-based and other community organizations. Indeed, America as a whole is very religious. As one of Community College of Philadelphia's recent Commencement speakers, Charles Bow, noted in a column in the New York Times (Sept. 28, 2008), America is the outlier among more economically prosperous nations in seeing religion as very important. Many of our potential Religious Studies majors also may be interested in combining the study of religion with a career in areas such as faith-based counseling or public health. It is important, therefore, that the Department work on identifying and building community partnership for purposes such as recruitment of new students, possible career opportunities, and possible joint grant initiatives. Among the initiatives to reach out to community partners are:

- We will coordinate with members of the advisory council, especially those from community and faith-based organizations, to identify possible partnerships.

- The Department has already made contact with the City's Department of Public Health and Intellectual Disability Services, through a one-day meeting held in March on "Spirituality and Public Health." As a follow up, the Coordinator for Religious Studies has been invited to and has accepted the invitation to attend a one-day conference on "Faith, Spiritual Affairs and Behavioral Health" on April 24. This will also be an opportunity to distribute the new brochure and invite faith/spiritual communities to the planned activities in the Spring and early Summer.

- We will meet with faculty in the areas of BHHS and the non-credit Faith and Spirituality Based Counseling program to identify opportunities for collaborative efforts.

Community College of Philadelphia

The Path to Possibilities

Business *and* Technology Division

DATE: March 25, 2015

TO: Dr. Judy Gay

FROM: Marian E. McGorry

SUBJECT: CAHM Academic Audit – Targets & Timelines

At the Thursday, February 5, 2015, meeting of the Student Outcomes Committee of the Board of Trustees, the Committee members requested to see the targets and timelines for each of the recommendations presented in the Academic Program Audits for the Culinary Arts AAS Degree, Hospitality Management AAS Degree, and the Professional Cooking Proficiency Certificate. Below are the five (5) recommendations from the Audits with the activities, targets, and timelines for each.

Findings and Recommendations

1. Program Management

Students in both programs enroll in approximately 40% more courses than are required for graduation. Some of these credits can be attributed to developmental students, gatekeeper courses, or students experimenting with courses outside CAHM. Research should be undertaken to determine if there are common courses that students enroll in outside of the curriculum and common courses students struggle to progress through and how the Programs can assist students in progressing through the program.

Additionally Students in both Culinary Arts and Hospitality Management change majors at a rate approximately 30% higher than that of the College. Research should be undertaken to determine if they are changing majors within the two programs (swapping one for the other) or leaving CAHM completely and if anything can be done to improve retention.

Faculty will work with Institutional Research staff to identify:

a. the progress of student program majors who are taking common courses that are not required for the Culinary Arts (CULA) or Hospitality Management (HOSM) degree and include FNMT 017-Elementary Algebra and ENGL 098-Fundamentals of Writing;

b. the progress of CULA and HOSM students who are taking common courses for the programs and include: FNMT 118-Intermediate Algebra, ENGL 101-English Composition I, CAHM 170-Elementary Food Preparation, Principles & Practices, CAHM 151-Elementary Baking and Pastry, CAHM 171-Quantity Food Preparation, and CAHM 271-Food, Beverage Management & Labor Cost Controls.

Target: Decrease the number of unnecessary courses students take from 40% to 25%.

Faculty will work with Institutional Research staff to identify whether students are:

c. taking CAHM courses in the third semester and then changing to the alternate CAHM degree program and consequently taking unnecessary courses, or
d. changing to a major other than a CAHM program.

The sequence of courses during the first year are the same for both the Culinary Arts and Hospitality Management programs. CAHM faculty will engage in student mentoring and one-on-one academic advising to improve the academic paths of students and will focus especially on those students who have traditionally self advised and have not met with CAHM faculty.

CAHM faculty recently learned how to use and have access to Hobson's Connect software where they will connect with and pre-advise prospective CAHM students and will have the ability to track those students as they enter the CULA or HOSM program and advise them appropriately.

Target: Decrease from 30% to 20% the number of students who change majors.

Timeline: Progress report to Assistant Dean by the end of Fall 2015 and a complete report with data at the end of the 2015-2016 academic year.

2. Broaden Focus of Hospitality Management Program

The Hospitality Management field has recently evolved to include tourism, meeting/ convention/ event planning, and gaming. Locally, job growth in meeting/ convention/ event planning and gaming is favorable, while the job growth in food, beverage and hotels is stagnant. Increasingly, more jobs in food, beverage, and hotel management are being filled by individuals without higher education qualifications, while a greater proportion of jobs in meeting/ convention/ event planning and gaming are filled by individuals with higher education qualifications. Research should be undertaken to determine if CCP should broaden the focus of the Hospitality Management Program and if the focus is broadened, identify what changes should be made.

CAHM faculty will consult with representatives from the four-year area partner institutions with Hospitality Management programs (Temple, Widener, Cheney, Drexel) to determine which aspect of the hospitality management field to include in the Hospitality Management curriculum. The course faculty develop and add to the program should benefit students when they enter the workforce or if students transfer to a four-year university.

Target: By September 2015 the CAHM faculty will submit a proposal to develop a new course for the Hospitality Management (HOSM) program that will increase the job opportunities for program graduates and will transfer seamlessly to the four-year partner institutions.

Timeline: New course developed and presented to the Academic Affairs Council by the end of May 2016.

3. Clean up Program Enrollments

Currently, CAHM offers two degree programs, Culinary Arts and Hospitality Management. In the past, five other programs were offered; however, some students remain registered in these other programs which are no longer offered. This makes it challenging to provide appropriate support to enrolled students. The Programs should

determine a date by which all students must move from old programs into the either in Culinary Arts or Hospitality Management.

According to a February 18, 2015, Bantasks report, there are six (6) students who remain registered in the discontinued HTP programs and who are registered in CAHM courses during the Spring 2015 semester. CAHM faculty have already contacted and personally advised these students. Faculty are in the process of changing students' curricula from the HTP programs into either the Culinary Arts (CULA) or Hospitality Management (HOSM) programs and will update the Assistant Dean by April 20, 2015, whether the six students have changed their programs to CULA or HOSM.

Target: No students registered in HTP programs by September 1, 2015.

Timeline: HTP students who have not changed their program will receive a letter notifying them to change their program by August 1, 2015, or the College will move them to either CULA or HOSM.

4. Program Management and Student Support

Culinary Arts enrolls a high proportion of developmental students and this seems to lead to lower outcomes (retention, graduation, and completion). Students within the degree would seem to benefit from additional supports (such as supplemental instruction) which could help mitigate the risk of dropping out once high risk courses have been identified.

CAHM faculty have already contacted the Learning Lab Department Head and scheduled an appointment to discuss implementing strategies that will improve CAHM students' learning. Anecdotal information from CAHM faculty indicates the need to improve the math skills of CULA and HOSM students, and one of the strategies faculty plan to implement is supplemental math instruction for students who are registered in the CAHM 170 sections.

Faculty will use the results of the data compiled by Institutional Research from Findings and Recommendation #1 to develop additional initiatives that will increase student retention, learning, and success.

Targets: In the Culinary Arts program increase graduation rate from 7.4% to 15% (HOSM average) and in CULA and HOSM programs increase Fall to Fall retention from 34.4% and 38.3% respectively to 40% or higher (College average is 36.7%).

Timeline: Progress report to Assistant Dean at the end of the 2015-2016 academic year and a complete report with data at the end of the Fall 2016 semester.

5. Close Professional Cooking Certificate

The certificate is quite small and has never really expanded, despite strong growth in culinary arts overall. There is also an overlap with non-credit offerings. The program should be closed.

At the February 5th meeting of the Student Outcomes Committee of the Board, members suggested that the program may need more stackable credentials and recommended contacting OIC to create a partnership and an articulated credit agreement for the students who complete the OIC culinary training program.

Targets: CAHM faculty will develop proposals for new stackable culinary arts and hospitality management proficiency certificates. Meet with OIC representatives to develop an articulation agreement.

Timeline: No new students admitted to the Professional Cooking Proficiency Certificate in Fall 2015. CAHM faculty meet with OIC representatives by the end of June 2015. Proficiency Certificate proposals submitted by the end of the Fall 2015 semester.

Community College of Philadelphia

The Path to Possibilities.

Business *and* Technology Division

Accounting AAS Degree Audit Update
Fall 2014

The Accounting AAS Degree program was presented to the Student Outcomes Committee of the Board of Trustees in February 2014. The Student Outcomes Committee recommended that the Board of Trustees accept the Accounting program audit and identified two action items for the Accounting faculty.

1. The deadline for decisions about the future of the program will be completed by the end of Fall 2014. Changes will be implemented by Spring 2015.
2. The program must, by Fall 2014, demonstrate that they are communicating to Accounting students upon entry into the College about the their options for transfer and workforce entry and advise them about the best programmatic options for them at that time.

Action #1

In response to Action #1, the Accounting faculty conclude the AAS in Accounting degree should continue in the future because it is a transferable degree either in total or for a majority of the courses depending on the transfer institution. In addition, the degree provides students with a credential and prepares graduates with the skills required to obtain entry-level employment in the field. Further, the Accounting AAS Degree is more comprehensive and students acquire more knowledge about the discipline than the Accounting Paraprofessional Proficiency Certificate.

At this time, no changes to the curriculum or the degree program are planned. However, the faculty will continue to monitor enrollment using the annual Quality and Viability Indicators (QVI) reports, follow trends in the field with the input of the Advisory Committee, and continue to communicate with the partner transfer institutions to determine the viability of continuing the Accounting AAS Degree program.

Action #2

In response to Action Item #2, the Accounting faculty developed and implemented the following initiatives during the Fall 2014 semester.

1. A case load advising system was established whereby each full-time Accounting faculty member was assigned approximately thirty students enrolled in the Accounting AAS degree program. (Appendix A.)
2. Faculty held information sessions for Accounting program majors on September 29 and September 30, 2014. (Appendix B.) During the sessions faculty advised students about career and transfer opportunities for students who are pursuing an AAS in Accounting degree. Information was provided regarding the Accounting Paraprofessional

Proficiency Certificate, the Business AA Degree, and the educational and experience requirements to sit for the CPA exam and become licensed in Pennsylvania was also presented. (Appendix C.)

3. Faculty prepared a welcome letter that was sent to all new Accounting majors. The letter explained the Accounting program and the potential career and transfer opportunities available (Appendix D.)
4. Faculty prepared a flyer that explains the various degree options available for students who are interested in pursuing a career in Accounting (Appendix E.)
5. Faculty converted two courses for distance education offering--ACCT 206 Auditing and ACCT 215 Nonprofit Accounting--to give students more flexibility in their course scheduling.
6. Activities related to student recruitment and retention that are outlined in the Accounting Program Management Plan were accomplished and included: participating in the Majors Fairs and Open House; utilizing MyDegreePath for advising students and to check on their progress; and informing students of tutoring resources available through the Learning Lab and online resources available through WileyPLus and MyAccountingLab.

The faculty will continue to implement the above initiatives to communicate with students who are Accounting majors. In addition, below are the ongoing actions planned by the Accounting faculty beginning the Spring 2015 Semester to demonstrate they are communicating with students about the options that are available to them.

1. In the Spring 2015 semester, faculty intend to survey Accounting students to gain a better understanding of students' current employment status and career plans in Accounting.
2. In the Spring 2015 semester, faculty will continue to host information sessions for Accounting students, continue the case load advising system, and send the welcome letter to Accounting students explaining career and transfer opportunities. All these items are included on the Program Management Plan.

APPENDICES

Dear Accounting Major:

We are trying to connect with all students who are registered as Accounting majors to make sure they have the proper support in order to accomplish their educational goals. The Accounting Program faculty are concerned because, according to the College's records, you have not taken any Accounting courses.

We are assigning all students to Accounting Faculty/Advisors to help you with the various questions you may have throughout your academic career at Community College of Philadelphia. Each faculty member is prepared to help you with registration/enrollment questions, career advising as well as transfer questions. Your advisor will help you identify courses for next semester and will help you reach your goals in a timely and efficient manner. They will also discuss your career goals with you and the best path for you to reach those goals whether it is obtaining a job after graduation or transferring.

If you are interested in transfer, the advisor will assist you by discussing with you where you plan to transfer. Keep in mind that not all courses transfer to every institution, which is why you should meet with an advisor from your academic program. Your advisor will discuss various paths with you depending on your goals. Please contact your advisor if you have any questions.

Your Advisor is:

Alan Davis

Adavis@ccp.edu

215-751-8711

If you need additional help please feel free to contact:

Cory Ng – Program Supervisor

cng@ccp.edu

215-496-9339

or

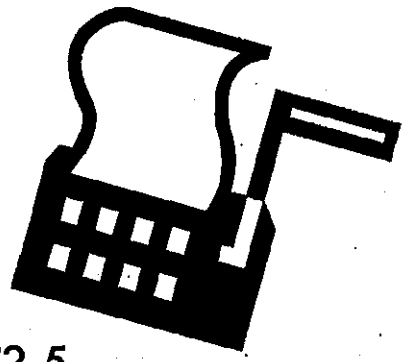
Richard Saxton – Department Head

rsaxton@ccp.edu

267-299-5875

Are you interested in a career in accounting? If so, please join accounting faculty for an information session to learn about various degree programs and transfer opportunities available at the College.

The purpose of this information session is to make sure that your current degree program is aligned with your career and educational goals.



When: Monday, September 29, 2014 &
Tuesday, September 30, 2014

Time: 3:30 - 4:30 PM

Where: Center for Business and Industry, C2-5

Accounting Majors Information Session

September 29, 2014
Presenter: Cory Ng, CPA, CGMA
Assistant Professor & Program Director

AAS in Accounting

- Students are prepared for a variety of careers such as:
  - Junior accountant
  - accounting trainee
  - accounts receivable or accounts payable technician
  - tax examiner.

AAS in Accounting

- 62 credits and 2.0 average for graduation
- No assurance that all credits will transfer unless you attend one of the following:

Chestnut Hill College	Philadelphia University
Cheyney University	Rosemont College
Kapaln University	Strayer University
LaSalle University	
Philadelphia University	

Accounting Paraprofessional Proficiency Certificate

- 16 credit hour career program / all credits transfer to AAS in Accounting
- ACCT 101 (financial accounting)
- ENGL 101 (English composition)
- ACCT 102 (managerial accounting)
- ACCT 103 (microcomputers in accounting)
- ACCT 208 (tax accounting) or ACCT 215 (nonprofit accounting)

AA in Business Administration

- Specifically designed to prepare students to transfer to Association to Advance Collegiate Schools of Business (AACSB)
  - Temple University
  - Drexel University
  - St. Josephs University
  - PA State System of Higher Education Schools

AA in Business Administration

- 61 credits; earning a C or better in all courses
- Math 162 & 171; or Math 171 & 172
- Complete Change of Curriculum Form in you need to change from AAS Accounting to AA Business Administration

Becoming a CPA in PA

- Graduate with a bachelor's degree
- Pass CPA Exam (four parts)
- Obtain 150 semester credits
- Obtain work experience (1,600 hours)

Becoming a CPA in PA

- Eligibility to sit for the CPA Exam
  - Received a bachelor's degree or higher from an accredited college or university
  - Completed at least 24 semester credits in accounting subjects, including accounting and auditing, business law, finance, or tax subjects sanctioned by the State Board of Accountancy
  - Candidates can sit for the exam with less than 150 credits, but will be required to obtain 150 credits before they are eligible to apply for licensure

Becoming a CPA in PA

- Qualifying work experience in government, industry, academia or public practice within 5 years of applying:
  - Accounting
  - Attest
  - Compilation
  - Consulting
  - Financial Advisory
  - Management Advisory
  - Tax

Questions?

Contact Information:

Email: cng@ccp.edu

Office: B2-24D

APPENDIX D

Hello Accounting Student, and welcome to Community College of Philadelphia!

We hope your semester is off to a wonderful start and you are acclimating well to CCP.

Academic records indicate that you have enrolled in the Accounting program at the College this semester. We're writing you to give you information about the Accounting program offer by the Department of Business Administration, and some additional information you may want to consider.

Upon your successful completion of the Accounting program, you will earn an A.A.S. (associate in applied science) degree in Accounting. For your information, reference, and planning, the requirements of the Accounting program are attached, and are available online at:

http://ccp.edu/college-catalog/degree-and-certificate-programs/associate-applied-science-aas/accounting.

A.A.S. programs are career track programs. Although you will be able to transfer many of the program credits to four-year colleges, there's no assurance that all of your credits will universally transfer unless you transfer to one of the following schools: Chestnut Hill College, Cheyney University, Kaplan University, La Salle University, Peirce College, Philadelphia University, Rosemont College, Strayer University, and Western Governors University, upon completion of the program. The primary intent of an A.A.S. program is to prepare you to enter the workforce in the area of your specialization, not preparation for transfer. Employment opportunities do exist for those who complete the requirements of the Accounting Program.

If your intent is to continue your education at a four-year college or university such as Temple University, St. Joseph's University, Holy Family University, or one of the state system of higher education schools, you may be better served by the Business Administration program at the College. The Business Administration program is an A.A. (Associate in Arts) program that has been designed to be the equivalent of the first two years of education at many four-year colleges and universities, including their emphasis on liberal arts and higher level Math courses. As such, most colleges and universities accept the program in-full as the equivalent of their first two years. For your information, the requirements of the Business Administration program are also attached, and can also found online at:

http://ccp.edu/college-catalog/degree-and-certificate-programs/associate-arts-aa/business-administration.

The Department of Business Administration also offers an Accounting Paraprofessional Proficiency Certificate the those who desired a credential in Accounting while pursuing a non-Accounting degree program. As an example, to earn the Business Administration degree and the Accounting Paraprofessional Proficiency Certificate would only require 6 credits -2 courses, beyond those required for the A.A. in Business Administration. The requirements of the certificate program are attached, or you can view them online at:

http://ccp.edu/college-catalog/degree-and-certificate-programs/proficiency-certificates/accounting-paraprofessional.

If you have any questions, or would like to discuss the Accounting program further, we encourage you to reach out to one of the members of our Accounting faculty - Alan Davis, Barry Johnson, or Cory Ng, who will be more than happy to speak with you and help you.

We wish you all the best as you pursue your educational goals, and are here to help you as much as possible.

Sincerely,

The Department of Business Administration.

Accounting Degree Program

First Semester		
ACCT 101 - Financial Accounting		4 credits
ECON 181 - Principles of Economics (Macroeconomics)		3 credits
ENGL 101 - English Composition I		3 credits
MATH 151 - Linear Mathematics **or**	MATH 118 with a "C" or better OR MATH 161 or higher placement	3 or 4 credits
MATH 161 - Precalculus I **or**	MATH 118 with a "C" or better OR MATH 161 or higher placement	
MATH 162 - Precalculus II **or**	MATH 161 with a "C" or better OR MATH 162 or higher placement	
MATH 171 - Calculus I	MATH 162 with a "C" or better OR MATH 171 placement	
MNGT 121 - Introduction to Business		3 credits
Second Semester		
ACCT 102 - Managerial Accounting	ACCT 101 with a grade of "C" or better	3 credits
ENGL 102 - The Research Paper	ENGL 101 with a grade of "C" or better	3 credits
ECON 182 - Principles of Economics (Microeconomics)		3 credits
ACCT 103 - Microcomputers in Accounting	ACCT 101 with a grade of "C" or better	3 credits
MNGT 141 - Principles of Management	Pre- or Corequisite: MNGT 121	3 credits
Third Semester		
ACCT 201 - Intermediate Accounting I	ACCT 101	3 credits
Humanities Elective		3 credits
ECON 112 - Statistics I	MATH 118 or higher than Math 118 on placement test	4 credits
Social Science Elective		3 credits
CIS 103 - Applied Computer Technology		3 credits
Fourth Semester		
ACCT 202 - Intermediate Accounting II	ACCT 201	3 credits
Accounting Elective (choose **one** of the following):		3 credits
ACCT 203 - Cost Accounting	ACCT 102	
ACCT 208 - Tax Accounting **or**		
ACCT 215 - Nonprofit Accounting **or**	ACCT 102 or ACCT 101 and department approval	
ACCT 206 - Auditing **or**	ACCT 201	
ACCT 250 - Advanced Accounting	ACCT 202	
ECON 114 - Statistics II	ECON 112	3 credits
Science Elective		3 or 4 credits
MNGT 262 - Business Law		3 credits

Business Administration Program

First Semester		
MNGT 121 - Introduction to Business		3
ACCT 101 - Financial Accounting		4
MATH 162 - Precalculus II	MATH 161 with a grade of "C" or better or MATH 162 placement	3/4
or		
MATH 171 - Calculus I [1]	MATH 162 with a grade of "C" or better or MATH 171 placement	
ENGL 101 - English Composition I		3
ECON 181 - Principles of Economics (Macroeconomics)		3
Second Semester		
ENGL 102 - The Research Paper	ENGL 101 with a grade of "C" or better	3
Math 171 - Calculus I [1, 2]	Math 162 with a grade of "C" or better or Math 171 placement	
or		
Math 172 - Calculus II	Math 166 with a grade of "C" or better or Math 171 with a grade of "C" or better	4
ACCT 102 - Managerial Accounting	ACCT 101 with grade of "C" or better	3
ECON 182 - Principles of Economics (Microeconomics)		3
Social Science[1]		3
Third Semester		
ECON 112 - Statistics I	MATH 118, or higher than MATH 118 on placement test	4
MNGT 141 - Principles of Management	Pre- or Corequisite: MNGT 121	3
History Elective[1]		3
CIS 103 - Applied Computer Technology		3
Laboratory Science[1]		4
Fourth Semester		
MNGT 262 - Business Law		3
MKTG 131 - Principles of Marketing	Pre- or coreq: MNGT 121	3
Business Elective[1] select one from:		3
ECON 114 - Statistics II	ECON 112	
FIN 151 - Risk Management and Insurance		
MNGT 142 - Management Information Systems	MNGT 121	
Humanities[1]		

Accounting Paraprofessional Proficiency Certificate

ACCT 101	Financial Accounting		4 credits
ENGL 101	English Composition I		3 credits
ACCT 102	Managerial Accounting I	ACCT 101 with a grade of C or better	3 credits
ACCT 103	Microcomputers in Accounting	ACCT 101 with a grade of C or better	3 credits
ACCT 208	Tax Accounting; or	For ACCT 215: ACCT 102 or ACCT 101 and department approval	
ACCT 215	Nonprofit Accounting		3 credits

APPENDIX E

Community College of Philadelphia

Degree / certificate program	Accounting Paraprofessional Proficiency Certificate	Associate in Applied Science (AAS) in Accounting	Associate of Arts (AA) in Business Administration (Transfer Program)
Program requirements	16 credits	62 credits and GPA of 2.0 ("C" average)	61 credits, earning a "C" or better in all courses and earning at least a 2.0 GPA
Career goal	Accounting paraprofessionals in business, government, and non-profit organizations	Junior accountant, accounting trainee, accounts receivable or accounts payable technician or tax examiner	Accountant, Auditor, Tax Accountant, Certified Public Accountant (CPA), Certified Management Accountant (CMA)
Transfer options	Students earning the Accounting Paraprofessional Proficiency Certificate may elect to continue their education at the College by earning the A.A.S. degree in Accounting.	Students wishing to transfer to a 4 year school are strongly advised to seek information regarding admission and transfer requirements for those programs.	The AA in Business Administration program is specifically designed to prepare students to transfer to those business schools that are accredited by the Association to Advance Collegiate Schools of Business (AACSB). **Students choosing the AA in Business Administration should major in Accounting upon transferring to a 4 year institution.**

Important note: Students currently enrolled in the AAS Accounting Program that intend to transfer to an AACSB accredited 4 year school for accounting should consider changing their majors to AA in Business Administration by completing a curriculum change form available in B2-22.

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