

**COMMUNITY COLLEGE OF PHILADELPHIA**  
**STUDENT OUTCOMES COMMITTEE OF THE**  
**BOARD OF TRUSTEES**

**MINUTES**  
**Thursday, June 2, 2011**  
**1:30 p.m. – M2-34**

**Presiding:** Ms. Stacy Holland  
**Present:** Ms. Helen Cunningham, Dr. Stephen Curtis, Ms. Varsovia Fernandez,  
Dr. Judith Gay, Dr. Samuel Hirsch, Mr. Chad Lassiter, Dr. James  
Roebuck, Ms. Dorothy Sumners Rush  
**Guests:** Dr. Linda Hansell, Ms. Marian McGorry, Ms. Kathy Smith, Mr. Wayne  
Williams

**(1) Executive Session**

No Executive Session was held.

**(2) Public Session**

**(a) Approval of the Minutes of May 5, 2011**

The minutes were accepted.

**(b) Finance Audit (Action Item)**

Dr. Gay gave a brief introduction to the Finance Audit. She stated that the audit was one of three that was facilitated by an outside auditor, Dr. Gary Rizzo. Dr. Rizzo is the former Vice President for Academic Affairs at Reading Area Community College. While the audit does not make a single recommendation, Dr. Gay stated that it seems clear that there are strong reasons to discontinue the program, including that students are not employable in the field of finance with an associate's degree. Dr. Gay said the Department Head, Mr. Williams, would elaborate on the information in the audit. Mr. Williams discussed differences between finance, accounting and economics as disciplines. He agreed that jobs in the field require more than an associate's degree. Students who are currently in the finance curriculum can move to either the business curriculum or the business administration curriculum. He also stated that every business student should be exposed to finance and accounting in addition to business courses. Dr. Roebuck asked about efforts to help students understand the relationship between major and possible careers. Mr. Williams and Ms. McGorry mentioned efforts that are occurring to help students make those links, including orientation, advising and the creation of an International Business

Society at the College. Ms. Holland mentioned that there are two ways to help students make the connection - the curriculum and career exposure. There was a discussion by Board members about the timing of discontinuing the Finance Program. Ms. Cunningham said students should not enter a program if there are no jobs associated with the degree.

**Action:** The Student Outcomes Committee of the Board agreed to recommend the following to the Board of Trustees:

1. Accept the Finance Audit and eliminate the Finance Program effective with the spring 2012 semester.
2. There must be a phase out plan for the program.
3. Students who applied to the program for fall 2011 must be counseled about their options.

### **(c) Fire Science Audit (Action Item)**

Dr. Gay gave an introduction to the Fire Science Program. Fire Science is a small program with no full time faculty. All of the faculty have extensive experience in the field and the program is supported locally. Philadelphia firefighters who complete the program receive credit toward promotion and students can transfer to a bachelor's degree completion program at Holy Family University.

Ms. Fernandez asked whether students are aware of career options in less traditional jobs such as in the nuclear industry. Ms. Smith said that topic and other recommendations in the audit will be discussed with the Advisory Committee at a fall 2011 meeting. Board members discussed ideas to strengthen the program including working with Corporate Solutions, marketing, and refining the Program's enrollment management plan. Mr. Lassiter recommended that the Advisory Committee be expanded. He suggested identifying someone from the U.S. Department of Emergency Preparedness. Dr. Curtis asked whether students have difficulties with attending classes because of their work schedules. Ms. Smith said the Fire Department has been very accommodating. Ms. Sumners Rush stated that the recommendations in the audit and the timeframe are good.

**Action:** The Student Outcomes Committee of the Board agreed (with one abstention) to recommend the following to the Board of Trustees: Accept the Fire Science Audit and recertify the Fire Science Program for five years.

### **(d) Career Services Administrative Audit (Information Item)**

Dr. Hirsch provided a brief overview of the Career Services Administrative Audit and highlighted the recommendations.

Ms. Holland asked, based on prior discussions, if Committee members felt there was a need to have administrative audits presented to the Committee since there are no actions for the Committee to take. The Committee agreed that there was no need to present administrative audits in the future.

### **Next Meeting**

The next meeting of the Student Outcomes Committee is scheduled for **Thursday, July 7, 2011** at **1:30 p.m.** in M2-34.

### **Attachments**

Minutes of June 2, 2011  
Finance Audit  
Fire Science Audit  
Career Services Administrative Audit

**COMMUNITY COLLEGE OF PHILADELPHIA**  
**STUDENT OUTCOMES COMMITTEE OF THE**  
**BOARD OF TRUSTEES**

**MINUTES**  
**Thursday, May 5, 2011**  
**1:30 p.m. – M2-34**

**Presiding:** Ms. Stacy Holland  
**Present:** Dr. Stephen Curtis, Ms. Varsovia Fernandez, Dr. Judith Gay, Dr. Samuel Hirsch, Ms. Dorothy Sumners Rush,  
**Guests:** Dr. Ron Jackson, Dr. Sharon Thompson, Mr. David Watters, Mr. Brenton Webber

**(1) Executive Session**

No Executive Session was held.

**(2) Public Session**

**(a) Approval of the Minutes of March 17, 2011**

The minutes were accepted.

**(b) Proposed 2011-12 Student Activities, Athletics, and Commencement Budget (Action Item)**

Dr. Hirsch introduced Dr. Ron Jackson, Dean of Students and Mr. David Watters, Assistant Dean of Students/Director of Student Life. Mr. Watters provided an overview of the proposed 2010-11 Budget for Student Activities, Athletics, and Commencement. Dr. Hirsch referenced the recently revised College Policies and Procedures Memorandum No. 211 which outlines guidelines for the use of Student Activities funds. The following budget information and explanation were provided:

<u>Revenue Sources (FY12 Proposed)</u>	<u>(FY11 Revised)</u>
General College Fee: \$1,638,254	(0.22% increase over FY11)
Revenue from Activities: \$165,000	(41% increase over Y11)
Net Profits from Bookstore/Cafeteria: \$545,568	(11.4% increase over FY11)
Graduation Fee: \$54,000	(1.05% increase over FY11)

- Net increase of \$129,674 over FY11 Approved (5.4%)
- Net increase of \$32,649 over FY11 Revised (1.4%)

## Budget Lines

<u>Percentages</u>	<u>Guidelines</u>	<u>FY11</u>	<u>FY12</u>
Student Publications	10%	9.7%	10.0%
Campus Programming	15%	14.7%	13.9%
Performing Arts	5%	2.4%	3.2%
Student Support	15%	18.3%	17.9%
Student Lead./Invol.	15%	15.0%	15.0%
Athletics	35%	35.0%	35.0%
Contingency	<u>5%</u>	<u>5.0%</u>	<u>5.0%</u>
	100%	100.1%	100.0%

## Individual Budget Lines

The overall 5.4% increase in the Budget (over Approved FY11) is accomplished by a small increase in the enrollment projections (74 FTEs); a higher return on Auxiliary Profits (Cafeteria losses offset by Bookstore Profits); and higher projection on Activities Fees. The overall 1.4% increase (over Revised FY11) again is due largely to Auxiliary Profits and increase in Student Activities revenue.

There is a decrease in the amount of funds available for the Programming Lines (those lines within the percentage guidelines). This is a result of two issues: 1) moving the funding of First Year Student Success programs out of the percentage guideline structure and increasing the total budget for these programs by 165% in order to fully fund; and 2) a net increase of \$102,900 in the staff salary/fringe benefit costs by moving the funding of two classified positions into this budget. This results in a decrease of approximately 14.5% or \$153,226 for use in programming lines.

In general, no major changes to the budget lines are being proposed. Most individual lines and sections of the budget are being proposed with modest increases which maintain the current structures.

One programmatic line change is being proposed. The "Co-Curricular Cultural and Educational Trips" line is being moved from the "Campus Programming" section to the "Student Support" section. Essentially, the Co-Curricular programming line is replacing the First Year Student Success (New Student Orientation) budget line in that section.

In addition to the increase in First Year Student Success funding mentioned above, two other individual programming lines are being increased: Regional Center Programming in the "Campus Programming" section and the Spoken Word line in the Performing Arts section.

Staff (48.7% of funds; up from 47% in FY11)  
(Increase of \$102,900)

There is a slight increase in the percentage of funds, as compared to current year budget, due to: fringe benefit increases; two classified positions added to budget; and one position salary lowered due to anticipated new hire. 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.

Student Publications (Guideline - 10%; Actual - 10%)  
(Decrease of \$11,762; 11.6%)

There is minimal impact on current programmatic levels. Level funding for *Vanguard* and slight decreases in three literary magazines and Student Handbook. Discussions have begun with three literary magazines to lower overall cost while maintaining unique character of each publication. Student Handbook is being funded at level of prior years' actual costs. Have elected to maintain version of current handbook and to not rely solely on on-line version. Student input overwhelmingly was to maintain hard-copy book.

Campus Programming (Guideline - 15%; Actual – 13.9%)  
(Increase of \$10,000)

Increase in funding of Regional Center programming. With the establishment of full-time staff member overseeing programming, increase is warranted to serve all three Centers. Other programming lines level-funded. Co-curricular programming was removed from this section.

Performing Arts (Guideline – 5%; Actual 3.2%)  
(Increase of \$4,000)

Increase from 2.4% to 3.2% of programmatic budget. The increase reflects the proposed addition of a “Spoken Word” performing arts group. Slight decrease in support for Jazz Band but will have no programmatic impact. The Musical Events line is used to pay for BMI/SESAC/ASCAP royalties.

Student Support (Guideline – 15%; Actual 17.9%)  
(Decrease of \$3,090)

New Student Orientation, renamed First Year Student Success, is now removed from this section. Only Co-Curricular programming is reduced slightly; all other program lines level funded. “Health & Wellness Programs”: This line covers student medical costs associated with P&P 308.

Student Leadership and Involvement (Guideline – 15%; Actual 15%)  
(Decrease of \$23,012 or 14.6%)

To maintain 15% guideline, budget decrease is necessary. This section funds Student Government Association, Phi Theta Kappa, all clubs and organizations.

Athletics (Guideline 35%; Actual 35%)  
(Decrease of \$53,694 or 14.6%)

This decrease is the largest overall in whole dollars as this section is 35% of total budget. Virtually all costs associated with a particular sport are charged to their individual accounts – coaches, uniforms, supplies, travel, officials, etc. The largest decreases in Athletics are proposed for “Athletic Equipment,” “Co-Ed Intramurals,” and “General Athletics Support.” These three lines absorbed 61% of the overall reduction. Minor reductions in individual sports’ lines will be accommodated.

Contingency (Guideline - 5%; Actual – 5%)  
(Decrease of \$7,668)

Decrease due to maintain 5% guideline. Also, switched from 50% each to Student Life and Athletics to 65% Student Life and 35% Athletics to mirror percentage guidelines.

#### Child Care and Commencement

Maintained current year funding for each budget line.

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

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

Dr. Curtis and Ms. Holland questioned the higher auxiliary profits. Mr. Watters responded that it is anticipated auxiliary profits will increase due to the expanded food service in the new Pavilion Building. Dr. Curtis commented that there is the potential for the revised 2010-11 budget to be higher at the end of the year. Dr. Hirsch responded that if revenues are higher than anticipated the budget is revised. Ms. Holland asked what happens to the funds if money is left over at the end of the year. Mr. Watters responded that the remaining balance is placed into the quasi-endowment fund.

Ms. Holland recommended that the budget reflect the difference of total revenues and expenditures for comparison purposes. Mr. Watters agreed that that would be helpful and will be incorporated in next year's budget.

**Action:** Ms. Sumners Rush moved and Ms. Fernandez seconded the motion that the Student Outcomes Committee of the Board recommend to the full Board approval of the proposed 2011-12 Budget for Student Activities, Athletics, and Commencement. The motion was unanimously approved.

**(c) Humanities Audit (Action Item)**

The members of the Student Outcomes Committee of the Board reviewed the audit of the Liberal Arts – Humanities Option Audit. Two major issues in the curriculum are low enrollment and persistence. Dr. Thompson stated that to some extent students do not understand Humanities as a degree option; students who are interested in Humanities tend to go into the Honors Program or International Studies.

**Action:** After discussion, the Student Outcomes Committee of the Board agreed to recommend the following to the Board of Trustees:

1. Accept the Audit of the Liberal Arts – Humanities Option Program.
2. Close the program effective 2012-2013.
3. Require that a plan for the phase out of the program be developed and implemented such that there is minimal or no negative impact on students.

**(d) Mathematics Audit Follow-up Report (Action Item)**

Members of the Student Outcomes Committee of the Board discussed the required Follow-up Report to the 2010 Mathematics Program Audit with Department Head Brenton Webber. Ms. Holland asked Mr. Webber which of the audit recommendations he considers to be priorities for the department. Mr. Webber identified enrollment management as the first priority. He stated that the program has fewer than two dozen students. The low number of majors is making it difficult to offer Math 263 in particular because it is only required in the major. The second priority is teaching and learning. Mr. Webber stated that he is exploring how to address this recommendation from the audit. Ms. Sumners Rush stated that the Committee expects a complete audit follow-up report by December 2011. Mr. Webber stated that he understands that the audit update submitted is not complete.

**Action:** The Student Outcomes Committee of the Board agreed that they need to have a complete report by December 2011.

**Next Meeting**



The next meeting of the Student Outcomes Committee is scheduled for Thursday, **June 2, 2011** at **1:30 p.m.** in M2-34.

**Attachments**

Minutes of May 5, 2011

Summary of Proposed 2011-12 Budget – Table VII-A

Detailed Proposed 2011-12 Budget – Table VII-B

Humanities Audit

Mathematics Audit Update

*Community College of Philadelphia*  
*Academic Program Audit: Finance Program*  
*Division of Business and Technology*

Author: Gary E. Rizzo, Ph.D. (Auditor)

Contributors: Linda Hansell, Ph.D., Acting Director, Academic  
Assessment and Evaluation  
Marian E. McGorry, Assistant Dean  
Wayne W. Williams, Department Chair

April 29, 2011

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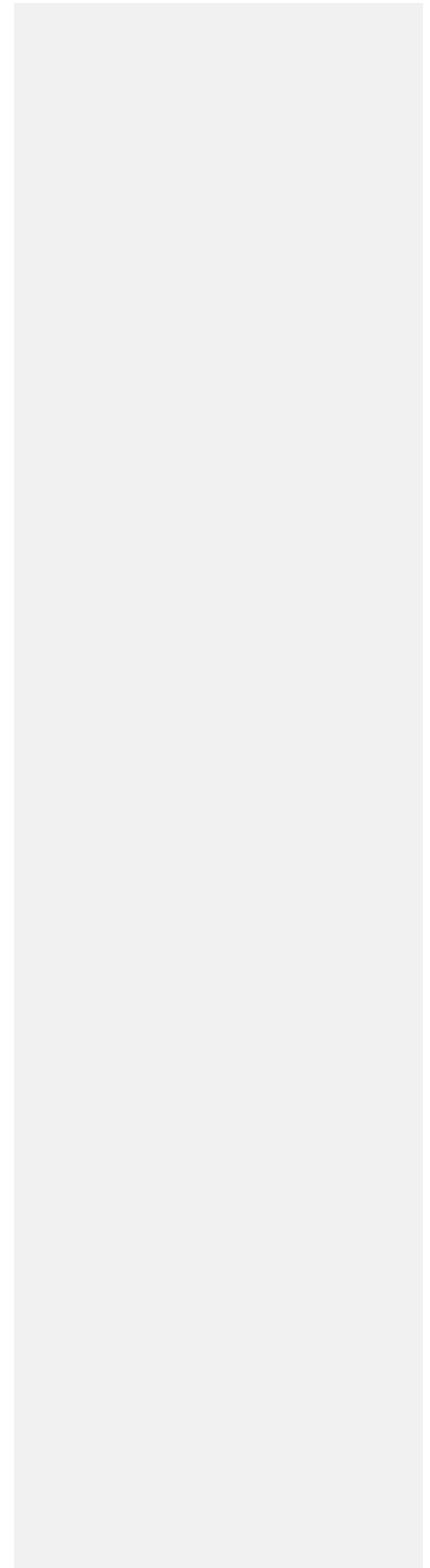
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## I. Executive Summary

The Finance Program at the Community College of Philadelphia was initiated in 1969-70 in response to the need for personnel to work in the finance and insurance industries in the Greater Delaware Valley. The goals of the program were to provide both a terminal degree with career options and a transfer option for the student to pursue the baccalaureate. Changes in the field and in business hiring practices have indicated that the current requisite education needed for entry level positions in the finance field is the Baccalaureate degree and not the Associate degree.

The program was audited in 1997 with several recommended changes to courses in terms of titles and content. Since the 1997 audit, changes were made to the program in 2003, 2008 and 2009. Currently four courses are required that relate directly to Finance. However, the program maintains the same goals of terminal degree and transfer.

Data shows that students taking the Finance courses as well as Finance majors are, for the most part, satisfied with their experience. There is, however, stagnant enrollment in majors and in graduates. The program has experienced outside pressures for students to obtain the baccalaureate for entry level positions, and the difficulty of transferring courses to senior level universities for the baccalaureate degree.

The Finance program is just beginning to address course and program assessments to meet the requirements from the Middle States Commission on Higher Education (MSCHE) for better and ongoing assessments.

It is the recommendation of this Auditor that the College consider the following:

1. The College delete the Finance Program from its program offerings.
2. The College eliminate Finance as a stand-alone AAS degree and makes it a program option/concentration within the Business/Business Administration AA program.
3. If the Finance program is to continue as an option in the Business/Business Administration program, revisions must be made to align it more closely with Temple or another regional baccalaureate program. It is recognized that Temple's AACSB accreditation makes this a very difficult, if not a seemingly impossible task.
4. The College identify several area 4-year colleges, or colleges in relatively close proximity to CCP that have a Finance program and are not members of AACSB to provide CCP students with more viable transfer options. Failure to take this step decreases the viability of the transfer option and puts both students and the program in serious jeopardy.
5. The College develop a credit course in Personal Finance.
6. The College offer a proficiency certificate that emphasizes personal finance.
7. The program faculty and the Office of Academic Assessment and Evaluation continue assessments at the course, program and institutional level, using this information to support program change, as well as being in compliance with MSCHE.

## **II. Program**

### **A. Mission of the Program**

The Finance curriculum leads to an Associate in Applied Science (AAS) degree. This curriculum provides a strong business background with special focus on financial analysis. Completion of this curriculum will prepare students for positions as branch bank manager, consumer loan office manager, analyst, statistical assistant in a securities office, or other positions in the banking, security, investment and loan business.

### **B. Major Goals of the Program**

The original goal of the Finance Program was to give students sufficient skills to enter the labor force in the Finance field. While the program is an AAS program and not designed for or intended to transfer, students who were registered in the program did transfer to a baccalaureate degree program. The major goals of the program align with the College's mission by ensuring that it addresses heightened curiosity and active interest in Finance. The course sequencing builds upon the student's ability to pursue paths of inquiry since the degree requirement ensures that in addition to the required finance courses, there is exposure to management, marketing, accounting and technology issues built into the curriculum. Study of Finance is quite rigorous and presents intellectual challenges. The completion of the program affords the student the satisfaction of accomplishment upon degree completion. Ultimately, degree recipients are more informed citizens who can positively contribute to the city of Philadelphia and beyond.

The Finance program has the following Student Learning Outcomes. Upon completion of the Finance program, graduates will be able to:

- Demonstrate an understanding of the conceptual framework for why markets exist.
- Demonstrate an understanding of the role of federal regulations and financial institutions in the market.
- Consider and interpret risk in investments and examine the theory of portfolio construction and the efficient markets theory.
- Communicate effectively with customers and other financial professionals orally and in writing.

Assessments of student outcomes have not been completed as of the date of this audit. Learning outcome assessments will take place over the next two years in concert with the institution-wide assessment initiative. Currently, faculty use homework assignments, exams, written assignments and group assignments that incorporate collaborative learning to reinforce the subject matter.

### C. History of the Finance Program

The Finance Program was initiated in 1969 – 1970 in response to the need for personnel to work in the finance and insurance industries in the Greater Delaware Valley. In addition, students have used the Finance Program to prepare themselves for transfer to other institutions and to continue their education towards a baccalaureate degree. The local and nationwide trend in employment in this field requires an employee to have a baccalaureate degree, or an associate degree working toward a baccalaureate degree. The Finance programs initial audit was completed in 1997, and has undergone several revisions since then (See Section F. Revisions Since Last Audit, p. 9).

The current condition of the Finance program includes a low number of graduates, courses that have inadequate enrollment and core courses that are not required in any business curriculum. For example, there are four courses required to fulfill the Finance degree requirements:

**Finance 151: Risk Management:** This course is a required course for the Business and Business Administration degrees. Since it is a required course which transfers to virtually all of the schools with which there are articulation (transfer) agreements, the course enrollment has increased over the past three years and reaches the maximum (36) number of seats in all sections offered.

**Finance 191: Financial Management:** The pre-requisite for this course is the introductory accounting course (ACCT 101) so there are many eligible students. Although a required course for the Finance degree, this is not a required course and is not listed as a directed elective for any other degrees at the College; therefore, enrollment is low. This course used to be included in the Management degree option; but since it was removed as a required course, over the past two years only online sections have seen adequate enrollment to justify running the course.

The FIN 191 course in the College's Finance AAS Degree is offered in the 3rd year of most Bachelor Degree programs. Fewer students are selecting the Finance degree as a major and because of that the required course, FIN 191, has experienced a decline in enrollment. Between the Spring 2008 and the Fall 2010 semesters, the average enrollment in the FIN 191 sections that were offered was approximately 15 students. The enrollment decline in FIN 191 was evident beginning the Spring 2008 semester when one of two sections was cancelled because of low enrollment. Although offered consistently each semester through Fall 2010, the only section of FIN 191 offered for Spring 2011 was cancelled due to insufficient enrollment.

**Economics 291: Financial Markets & Institutions:** The pre-requisite for this course is the introductory economics (ECON 181) course so there are many eligible students. Although this is one of two courses listed as a directed elective for the Finance degree, this is not a required course and is not listed as a directed elective for any other degrees at the College; therefore, enrollment is low. This

course has an economics course designation which may be confusing to students and academic advisors.

**Finance 292: Investments:** The pre-requisite for this course is (FIN 191) which is itself low-enrolled, so as a sequenced course there are very few students eligible to take this course. This is the second course listed as a directed elective for the Finance degree. As with ECON 291, this is not a required course and is not listed as a directed elective for any other degrees at the College. Despite student interest in investments, students do not have the pre-requisite requirements and are ineligible to take this course. The course has not run in the past two years because of insufficient enrollment. Consequently, the department has been generating graduation waivers for students who are Finance majors by substituting ACCT 208 – Tax Accounting. However, ACCT 208 does not expose the students to the securities and bond markets.

The Finance degree as a career program degree is difficult for students to obtain. Because the enrollment is low in FIN 191, without an organized student cohort FIN 292 will subsequently have low or lower enrollment decreasing the number of potential graduates. Because the 200-level courses do not transfer to business schools accredited by the premier business school accreditation association, AACSB, the benefit of taking the course at CCP becomes even more problematic. The Business and Business Administration curricula are more popular program majors for students who are able to transfer successfully and take the courses at the transfer institution resulting in a baccalaureate degree. These factors are documented in the CCP Institutional Reports (#205 and 206) dated September 2010, with the outcomes of 2009 graduates. Of the 208 graduates, (5) were Finance majors. This evidence indicates that there is student interest but there needs to be program revision towards relevance.

In January 2006, the Department's Minority Finance Fellow conducted both market research and a student survey. (See Appendix A for Minority Finance Fellow's report.) At that time, employer qualifications regularly listed either a bachelor's degree or bachelor's degree preferred as the minimum qualifications in banking and finance. There were no other local community colleges offering an associate's degree in Finance as a terminal degree. Considering the increased complexity of the financial markets due to globalization and the increased demand for worker skills, it is highly unlikely that employment prospects for graduates with an associate's degree in finance have increased since that time. Despite the conclusions of this report, the Department did not support a recommendation concerning the elimination of the degree program as an offering to students. See Appendix A for the complete survey and report.

The Community College of Philadelphia uses the Economic Modeling Specialists Inc. (EMSI) software to identify market trends about occupations and ascertain the education necessary for the occupation, hourly salaries and other information. The current EMSI data for the Finance field indicates a bachelor's degree is required for the occupation (Appendix C). This data substantiates the Minority Fellow's Report findings and is in accord with the recommendations of this program audit.

## D. Description of the Curriculum

The Finance curriculum leads to an Associate in Applied Science (AAS) degree. This curriculum provides a strong business background with special focus on financial analysis. Completion of this curriculum will prepare students for positions as branch bank manager, consumer loan office manager, analyst, statistical assistant in a securities office or other positions in the banking, security, investment and loan business.

The required courses in the program consist of 4 courses in Economics, 3 courses in Finance, and 2 courses in Statistics. The student also takes courses in Accounting, Management, Composition and Computer Technology as well as Science, Social Science and Humanities.

**Chart I**  
**Associate of Applied Science in Finance**  
**Sequence of Courses**

Course Number and Name	Prerequisites and Co Requisites	Credits	Gen Ed Requirement
<b>FIRST SEMESTER</b>			
ECON 181 – Principles of Economics (Macroeconomics)		3	
ACCT 101 – Financial Accounting		4	
ENGL 101 – English Composition I		3	ENGL 101
MATH 151 Linear Mathematics or	MATH 118 with a “C” or better OR MATH 161 or higher placement	3	Mathematics
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 or higher placement	3	
MNGT 121 – Introduction to Business		3	
<b>SECOND SEMESTER</b>			
ENGL 102 – English Composition II	ENGL 101	3	ENGL 102 _ Info Lit
ACCT 102 – Managerial Accounting	ACCT 101 with a grade of “C” or better	3	
ECON 182 – Principles of Economics (Microeconomics)		3	
Social Science Elective		3	Social Sciences
FIN 151 Risk Management and Insurance		3	
<b>THIRD SEMESTER</b>			
ECON 112 – Statistics I	Math 118 or higher placement	4	
MNGT 141 Principles of Management	MNGT 121	3	
FIN 191 – Financial Management	ACCT 101	3	
CIS 103 – Applied Computer Technology		3	Tech Comp
Humanities Elective		3	Humanities
<b>FOURTH SEMESTER</b>			
ECON 114 – Statistics II	ECON 112	3	
ECON 291 – Financial Markets and Institutions or	ECON 181	3	
FIN 292 – Investments	FIN 191		



Science Elective		3 or 4	
General Elective		3	
General Elective		3	
<b>CREDITS NEEDED TO GRADUATE:</b>		<b>62</b>	

**General Education Requirements**

All General Education requirements are met through required courses except for the **Writing Intensive** requirement, the **Interpretive Studies** requirement and **American/Global Diversity** requirement. Therefore, in order to graduate, students in this program must choose one course that is designated **Writing Intensive**, one course that is designated **Interpretive**, and one course that is designated **American/Global Diversity**. The same course may be used to fulfill several requirements.

**E. Internal Program Coherence**

The Finance Program was last reviewed in 1997. At that time the student was required to take the following courses and today the courses remain required:

- ECON 181 – Principles of Economics (Macroeconomics)
- ECON 182 - Principles of Economics (Microeconomics)
- ECON 112 – Statistics I
- ECON 114 – Statistics II

Both Economics and Statistics were seen as necessary courses for a complete understanding of Finance and for data analysis and statistical applications to solve problems. In addition to this solid quantitative foundation, the following Finance courses were required prior to the 1997 audit:

- FIN 151 – Insurance
- FIN 190 - Consumer Ethics
- FIN 191 – Financial Management
- FIN 252 – Property and Liability Insurance
- FIN 293 – Investments

Since the 1997 Audit, several changes were made to the program. Instead of the five courses identified above, only three finance courses and one additional economics course are now required.

**FIN 151 Risk Management and Insurance** - This course is designed to provide the student with an introduction to risk and methods of insurance. The objective of this course is to enable the student to develop an understanding of the many types of exposure to loss, the alternative methods of treating such exposures, and the role of insurance in personal and business affairs. Consideration is given to the legal framework surrounding the insurance mechanism. In addition, the regulation of insurance is discussed.

**FIN 191 Financial Management** - Principles and practices of business finance with emphasis on problem areas such as capital budgeting, profit determination and distribution, expansion, reorganization and liquidation, and the use of funds. Offered in the spring at night and in the fall during the day.

Prerequisite: ACCT 101.

**ECON 291 Financial Markets and Institutions (formerly Money & Banking)** The course introduces students to the history and general principles of money and banking and the importance of the commercial banking system in the money and credit structure. Students will study development of the Federal Reserve System and its instruments of credit control, and causes and effects of the changing value of money and availability of credit.

Prerequisite: ECON 181.

**FIN 292 Investments** - This course examines the practices of investing in equity securities and bond instruments that trade on the major stock exchange and commodity markets. The operations of the financial marketplace and the impact of price movement on financial products are discussed. Also included is the application of investment strategy to the assembly of capital through the Initial Public Offering process. This course assists the student in understanding the risks and rewards associated with investment choices.

Prerequisite: FIN 191.

The above four required courses in the Finance Program are consistent with the recommendation that the Finance program continue to offer current and timely courses for students with the focus on preparing students for transfer into a baccalaureate program. The above courses transfer successfully to many four year colleges and prepare the students for further study in the Finance field. However, it must be stated again that since the 200-level courses do not transfer to business schools accredited by the premier business school accreditation association, there are few benefits for students to take these courses at CCP.

#### **F. Revisions Since Last Audit**

In 2003 the program was revised to:

- Require students to take Insurance (FIN 151) as a program core course.
- Expand the directed electives to require students to complete Money and Banking (ECON 291) or Stock Marketing (FIN 292).
- Eliminate the Management elective from the directed elective courses.
- Give students a keyboard option of Keyboarding and Skill Development (OA 102) or Keyboarding on Computers (OA 141).
- Require Calculus (MATH 171).
- Require CIS 103 as the Computer Information Systems elective.
- Change the course sequencing to provide requisite skills earlier in the program.

In 2008 minor revisions to program courses included:

- FIN 151 title changed from Insurance to Risk Management and Insurance.
- FIN 292 title changed from Stock Markets to Investments.

- ECON 291 title changed from Money and Banking to Financial Markets and Institutions.

In 2009 the Finance Program underwent further revisions including:

- Eliminated the OA 141 or OA 102 requirement, recognizing CIS 103 is sufficient preparation for the workplace and also satisfies the Technological Competency Requirement.
- Changed the English elective to a Humanities elective.
- Changed the Science/Math elective to a Science elective.
- Eliminated English 112 as an alternative to English 102.
- Changed one of the two Social Science electives to a general elective.
- FIN 191 – Course textbook adoption changed from a textbook that emphasized complex calculations to a textbook that emphasized core concepts - Financial Management by Block & Hirt.

These changes have strengthened the program and student skill development while broadening the student opportunity to choose appropriate electives for transfer and for interest.

**Chart II**

**Comparison of Finance Courses Required for Degree Completion:**

<b>COMMUNITY COLLEGE OF PHILADELPHIA</b>	<b>TEMPLE UNIVERSITY</b>
<i>Associate's degree</i>	<i>Bachelor's degree</i>
FIN 151 – Risk Management and Insurance	RISK 2101 - Required as a core course for all business students, including finance majors
FIN 191 – Financial Management	FIN 3501 - Required as a core course for all business students, including finance majors
ECON 291 – Financial Markets & Institutions	FIN 3502 – Financial Markets ( junior year)
FIN 292 – Investments	FIN 3507 – Investments (senior year)
No equivalent offered	FIN 3503 – Corporate Finance
No equivalent offered	FIN 3551 or 3552 – International Finance
No equivalent offered	FIN 4596 – Sr. Seminar in Financial Management
No equivalent offered	Requires two additional finance electives from the following:
No equivalent offered	Advanced Corporate Finance
No equivalent offered	Management of Financial Institutions
No equivalent offered	Derivatives & Financial Risk Management
No equivalent offered	Money & Fixed Income Markets
No equivalent offered	Real Estate Investment & Finance
No equivalent offered	Entrepreneurial Finance

**NOTE:** Only FIN 151 and FIN 291 of the four Finance courses required by CCP potentially parallel the course offerings at Temple University, and these two courses are required for all business majors at Temple and not just Finance majors. In addition, and even more striking

is the absence of any concentrated Finance courses, other than FIN 151 (RISK 2101) and ECON 291 (FIN 3105) in the first two years of study at Temple. It is a concern that the remaining two required Finance courses at CCP (FIN 191 and FIN 292) may not transfer to Temple as they are considered junior level courses at Temple University.

#### **G. Curricular Innovations and Departmental Organizational Changes**

Effective August 31, 2009, the Economics and Accounting Department was reorganized and renamed the Business Administration Department. The Department was expanded to include the Automotive Technology and Culinary Arts and Hospitality Management curricula. The changes to the Department did not impact or change the Finance program.

#### **H. Future Directions in the Field/Program**

One of the contemporary issues facing the field of finance includes the integration of ethics. Throughout the financial history of the country, financial innovation has worked for the betterment of society, however, in recent years, greed and self-interested profiteering has been the focus. Prior to the 1997 audit, FIN 190 – Consumer Ethics was a required course for all Finance majors. However, following the recommendations of the 1997 audit, FIN 190 was eliminated as a program requirement. The recent changes in the Finance field, the recent debacle of Wall Street and the banking industry, and other national and global events necessitate that a Financial Ethics or Business Ethics course be reinstated in the curriculum. The focus of the recommended ethics course should be on ethics in business and distinct from a consumer ethics course. This recommendation is corroborated by the Finance faculty and the program chairperson.

In addition, contemporary financial academicians are exploring the nexus of politics and finance, which is the under-pinning of capitalism, as an important consideration of study.

A third trend is globalization, and a fourth is the integration of technology including online banking, which is causing many of the entry-level positions such as customer service representative which were available to be eliminated. This trend is also apparent in the automation of electronic stock trading processes which are being adopted across global financial markets.

Development of a personal finance course, such as what is currently being offered at Bucks County Community College (ACCT 110), should be considered. This credit course, offered college-wide, could serve as a general elective for students of every discipline. It could also become the anchor course for a four-course sequence Finance Proficiency Certificate. According to The Jump\$tart Coalition for Personal Financial Literacy, “most Americans have extremely low levels of financial literacy...despite its importance”. In the past decade, the government has started many initiatives to address this issue. In 2003, the U.S. Treasury Department created the Office of Financial Literacy and, in 2004 the Office of Financial Education was established through the PA Department of Education.

According to an article that appeared in the Wall Street Journal on June 19, 2010, titled, “Is there any cure for financial illiteracy?” by *Karen Blumenthal*, “Given the challenges for adults, it isn't any wonder that many young people finish high school with little understanding of inflation or insurance—or know that debit cards have fewer protections than credit cards. Only three states mandate personal-finance courses, though 18 others require that some instruction be included in other classes.”

### III. Faculty

#### Profile of the Faculty

One full-time faculty member and one adjunct faculty member comprise the Finance faculty. These faculty members are supplemented with other Business Administration Department faculty members who teach several sections of the Finance courses.

#### Professional Development

- The full-time faculty member is currently serving on or has previously served on the following committees:
  - Co-Chair – Learning Outcomes (communication)
  - AACU – Learning Outcomes Assessment training participant– Univ. of PA (July, 2009)
  - Advisory Committee member – Business Administration Dept.
  - Student advising as required by full-time appointment
  - Increased enrollment in FIN 151 course over past four years
  - Active securities and insurance licensing – annual completion of required continuing education (NADS) and PA Department of insurance
  - Member, Mayor's Tax Task Force - City of Philadelphia
  - Member, City of Philadelphia Department of Revenue Advisory Committee
  - Member, Advisory Board - Campaign for Working Families
  - 2010 Participant, Economy League of Greater Philadelphia - World Class Philadelphia
- Faculty have worked with publishers to customize the text for FIN 151 and adopted new text for FIN 191

Comment [CCP1]: What does this mean?

#### Faculty Qualifications and Expertise

A review of the qualifications of the faculty indicate that they hold appropriate degrees and credentials, and participate in professional development activities commensurate with the College requirements for faculty.

#### Faculty Support of Curriculum

In 2006, a Minority Fellow was appointed in the Economics and Accounting Department. The project assigned to the Minority Fellow was to conduct a survey of the CCP finance majors, research finance curricula at neighboring colleges and make inquiries with local employers regarding the viability of an associate's degree in Finance in the job marketplace. The Minority Fellow drew the following conclusions in the Final Report:

Considering that all of the respondents self-selected finance as a major, a clear opportunity exists to introduce the myriad of career opportunities to the students through the coordination of the CCP curriculum with industry professionals and institutions. Self-selection and a general lack of knowledge about the evolution and requirements of the industry suggest a need for academic advising to those registered as Finance students. The restrictive nature of many of the area's undergraduate institutions regarding transfer from our Finance degree program may also suggest that a revision from an A.A.S. degree in Finance to a(n) A.A.S. degree in Business Administration with a Certificate in Finance may prove more valuable to the prospective future CCP graduate. Clearly finance is a critical component of study in business and our faculty and administration have clearly made the courses relevant to the students. Lastly, it is suggested that inter-group interaction amongst these self-selected majors be encouraged to increase networking opportunities while enrolled at CCP.

The complete results of this investigation can be found in the appendix to this document (Appendix A).

In addition, in the development of the Business and Business Administration transfer degrees, the faculty also recommended that FIN 151: Risk Management and Insurance be included as a required course. To address the anticipated increase in the number of students, the department recruited faculty that had the ability and qualifications to teach this course as well as the managerial accounting course. A full time faculty member was hired with the intent to ensure that additional FIN 151 course sections could be offered in response to the changes to the Business and Business Administration degrees.

#### **IV. Outcomes and Assessment**

##### **Graduates**

The number of Finance program graduates has remained fairly small. Over the last five years, there has been an average of 8.8 graduates. The maximum number of graduates came in 2006 at 13.

**Table 1**  
**Number of Program Graduates**

<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
13	10	10	3	8

## V. Student Profile

### A. Demographics

The Finance program enrolls a diverse student body. Enrollment data drawn from the College's Institutional Research website indicates that Finance students are predominantly between the ages of 22-29 enrolled part-time at the College.

The Finance program has enrolled an average of 90.6 students over the last 10 semesters. The largest enrollment was in Spring 2009 with 105 students.

**Table 2**  
**Credit Headcount**

	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
<b>Program</b>	84	88	83	85	94	88	84	105	101	94
College-wide	16,236	16,978	16,871	17,019	17,334	17,661	17,327	18,023	19,047	19,965

**Table 3**  
**Credit FTE Headcount**

	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
<b>Program</b>	53	57	57	56	63	61	64	76	73	64
College-wide	11,017	11,329	11,523	11,296	11,881	11,823	11,883	12,128	13,361	13,784

**Table 4**  
**Enrollments - Spring 2009**

Subject	Total Subject % to Max	Term Max Enrl	Spring 2009 Sect	Spring 2009 Max Enrl 2nd	Spring 2009 CENSUS Enrl	Spring 2009 Avg Class Size	Spring 2009 % to Max
Finance	68.75%	36	4	144	99	24.75	68.75%
Total			4	144	99	24.75	

**Table 5**  
**Enrollments - Spring 2008**

Subject	Total Subject % to Max	Term Max Enrl	Spring 2008 Sect	Spring 2008 Max Enrl 2nd	Spring 2008 CENSUS Enrl	Spring 2008 Avg Class Size	Spring 2008 % to Max
Finance	77.78%	36	3	108	84	28.00	77.78%
Total			3	108	84	28.00	

The above two tables (4 and 5) suggest that the enrollments in the Finance program have increased by 15 students from the Spring 2008 to Spring 2009 Census date, the latest date for which we have data. This increase in numbers allowed for an increase of one section from 3 to 4, causing the Average Class Size to be reduced from 28.00 to 24.75. What is not clear from the data is whether or not these students are Finance majors or are Business or related majors taking Finance courses. It can be stated that from 2008 to 2009, Spring to Spring enrollments there was an acceptable increase in the Finance courses offered.

The Finance program has consistently enrolled slightly more male students than female students (Table 6). Compared to the College as a whole, the Finance program is enrolling 21.8% fewer female students over the last nine semesters.

**Table 6**  
**Program Enrollment by Gender as Compared to College-wide Enrollment (Percent)**

Gender		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Female	<b>Program</b>	<b>52.3</b>	<b>45.8</b>	<b>45.9</b>	<b>46.8</b>	<b>40.9</b>	<b>36.9</b>	<b>37.1</b>	<b>48.5</b>	<b>44.7</b>
	College	66.5	66.5	66.8	66.6	66.4	66.3	65.8	65.3	65.3
Male	<b>Program</b>	<b>47.7</b>	<b>53.0</b>	<b>52.9</b>	<b>51.1</b>	<b>59.1</b>	<b>61.9</b>	<b>61.9</b>	<b>50.5</b>	<b>55.3</b>
	College	32.2	32.3	32.1	32.3	32.7	32.9	33.1	33.8	33.9
Unknown	<b>Program</b>	<b>0</b>	<b>1.2</b>	<b>1.2</b>	<b>2.1</b>	<b>0</b>	<b>1.2</b>	<b>1.0</b>	<b>1.0</b>	<b>0</b>
	College	1.2	1.2	1.1	1.1	.9	.9	1.1	.9	.8

The tables below (Table 7 and Table 8) indicate that Black students represent the largest racial/ethnic group in the Finance program. The racial/ethnic makeup of the Finance program is similar to that of the College as a whole.

**Table 7**  
**Program Enrollment by Racial/Ethnic Background**

Race	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Amer Indian or Alaskan Native	0	0	0	0	0	0	0	0	0
Asian	8	11	10	6	8	10	9	11	5
Black, Non-Hispanic	39	38	38	53	39	36	49	44	45
Hispanic	2	4	4	3	5	3	6	6	4
Other	6	8	8	6	6	4	5	5	7
Unknown	6	4	4	9	10	10	11	11	10
White, Non-Hispanic	27	18	21	17	20	21	25	24	23



**Table 8**  
**Program Enrollment by Racial/Ethnic Background as Compared to College-Wide Distribution**  
**(percent)**

Race		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Amer Indian or Alaskan Native	<b>Program</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	College	.6	.5	.4	.5	.4	.4	.4	.4	.3
Asian	<b>Program</b>	<b>9.1</b>	<b>13.3</b>	<b>11.8</b>	<b>6.4</b>	<b>9.1</b>	<b>11.9</b>	<b>8.6</b>	<b>10.9</b>	<b>5.3</b>
	College	7.3	7.7	8.1	8.2	7.8	7.2	7.0	6.8	6.7
Black, Non- Hispanic	<b>Program</b>	<b>44.3</b>	<b>45.8</b>	<b>44.7</b>	<b>56.4</b>	<b>44.3</b>	<b>42.9</b>	<b>46.7</b>	<b>43.6</b>	<b>47.9</b>
	College	47.8	46.9	47.4	46.8	47.6	46.4	46.9	46.8	47.6
Hispanic	<b>Program</b>	<b>2.3</b>	<b>4.8</b>	<b>4.7</b>	<b>3.2</b>	<b>5.7</b>	<b>3.6</b>	<b>5.7</b>	<b>5.9</b>	<b>4.3</b>
	College	5.8	6.1	6.2	6.5	6.4	7.0	6.6	6.9	7.2
Other	<b>Program</b>	<b>6.8</b>	<b>9.6</b>	<b>9.4</b>	<b>6.4</b>	<b>6.8</b>	<b>4.8</b>	<b>4.8</b>	<b>5.0</b>	<b>7.4</b>
	College	4.8	4.6	4.6	4.2	4.4	4.1	3.9	4.2	4.4
Unknown	<b>Program</b>	<b>6.8</b>	<b>4.8</b>	<b>4.7</b>	<b>9.6</b>	<b>11.4</b>	<b>11.9</b>	<b>10.5</b>	<b>10.9</b>	<b>10.6</b>
	College	6.5	6.8	6.9	7.8	7.9	9.0	9.9	9.9	9.7
White, Non- Hispanic	<b>Program</b>	<b>30.7</b>	<b>21.7</b>	<b>24.7</b>	<b>18.1</b>	<b>22.7</b>	<b>25.0</b>	<b>23.8</b>	<b>23.8</b>	<b>24.5</b>
	College	27.3	27.4	26.3	26	25.4	25.9	25.3	25.1	24.1

On average, the Finance program consists of 40.9% of students between the ages of 22-29. Compared to the College, the Finance program is enrolling nearly 8% more students in this age group over the last 10 semesters.

**Table 9**  
**Enrollment by Age as Compared to College-wide Enrollment (Percent)**

Years		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
16-21	<b>Program</b>	<b>25.0</b>	<b>13.6</b>	<b>26.5</b>	<b>14.1</b>	<b>24.5</b>	<b>21.6</b>	<b>36.9</b>	<b>26.7</b>	<b>22.8</b>	<b>20.2</b>
	College	33.8	28.3	35.8	30.0	36.9	30.7	36.6	29.7	35.5	26.9
22-29	<b>Program</b>	<b>40.5</b>	<b>48.9</b>	<b>32.5</b>	<b>45.9</b>	<b>42.6</b>	<b>39.8</b>	<b>29.8</b>	<b>38.1</b>	<b>48.5</b>	<b>42.6</b>
	College	30.2	33.6	30.0	34.2	30.3	35.1	30.7	36.1	33.0	37.3
30-39	<b>Program</b>	<b>17.9</b>	<b>20.5</b>	<b>22.9</b>	<b>22.4</b>	<b>20.2</b>	<b>25.0</b>	<b>20.2</b>	<b>23.8</b>	<b>15.8</b>	<b>21.3</b>
	College	17.2	18.1	16.2	17.4	15.9	16.8	15.9	17.4	16.2	17.8
40+	<b>Program</b>	<b>13.1</b>	<b>14.8</b>	<b>14.5</b>	<b>15.3</b>	<b>10.6</b>	<b>11.4</b>	<b>10.7</b>	<b>9.5</b>	<b>9.9</b>	<b>12.8</b>
	College	14.6	15.6	14.2	14.9	13.8	14.6	14.3	14.6	13.7	14.0
Unknown	<b>Program</b>	<b>3.6</b>	<b>2.3</b>	<b>3.6</b>	<b>2.4</b>	<b>2.1</b>	<b>2.3</b>	<b>2.4</b>	<b>1.9</b>	<b>3.0</b>	<b>3.2</b>
	College	4.1	4.4	3.8	3.6	3.1	2.8	2.5	2.2	1.6	1.3

Nearly two thirds of the Finance program consists of part-time students, currently. There has been a slight decrease in the number of part-time students enrolled in the program. The ratio of full-time to part-time students is comparable to that of the College as a whole.

**Table 10**  
**Program Full-time/Part-Time Enrollments as Compared to College-wide Enrollments**  
**(Percent)**

		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
FT	<b>Program</b>	<b>25.0</b>	<b>26.1</b>	<b>30.1</b>	<b>27.1</b>	<b>28.7</b>	<b>31.8</b>	<b>41.7</b>	<b>39.0</b>	<b>40.6</b>	<b>34.0</b>
	College	31.8	30.0	33.3	29.0	32.8	29.2	32.7	30.0	35.3	32.2
PT	<b>Program</b>	<b>75.0</b>	<b>73.9</b>	<b>69.9</b>	<b>72.9</b>	<b>71.3</b>	<b>68.2</b>	<b>58.3</b>	<b>61.0</b>	<b>59.4</b>	<b>66.0</b>
	College	68.2	70.0	66.7	71.0	67.2	70.8	67.3	70.0	64.7	67.8

**B. Retention Data**

Table 11 below indicates that over the last five years, the average percentage of students enrolled in the Finance program in the Fall semester who returned to the same program in the Spring is 59%, which is lower than the average for the College as a whole (65%). Over the same period, Finance students were more likely to return to a different program and more likely to leave the College than students in the College as a whole.

**Table 11**  
**Returning Students - Same Program or Different Program in Subsequent Spring**  
**Semester (Percentage)**

		Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
Returned Same Program	<b>Program</b>	<b>58.3</b>	<b>63.9</b>	<b>51.1</b>	<b>69.0</b>	<b>53.5</b>
	College	65.6	64.3	64.2	64.6	68.4
Returned Different Program	<b>Program</b>	<b>4.8</b>	<b>7.2</b>	<b>10.6</b>	<b>2.4</b>	<b>8.9</b>
	College	3.6	4.1	5.2	5.1	4
Graduated Fall	<b>Program</b>	<b>1.2</b>	<b>6.0</b>	<b>1.1</b>	<b>0</b>	<b>4.0</b>
	College	1.9	1.7	2.1	1.8	1.9
Did not return Spring	<b>Program</b>	<b>35.7</b>	<b>22.9</b>	<b>37.2</b>	<b>28.6</b>	<b>33.7</b>
	College	28.9	29.9	28.6	28.5	25.6

Table 12 below indicates that on average over the last five years, less than one-third (31%) of students enrolled in the Finance program in the Fall semester returned in the subsequent Fall semester. This is slightly less than the average for the College as a whole, which averages 36.5% over the same period. On average over the last five years, almost half (47.4%) of the students enrolled in the Finance program in the Fall semester did not return to the College in the following Fall, which is the same as for the College as a whole (47.6%).

**Table 12**  
**Returning Students - Same Program or Different Program in Subsequent Fall Semester**  
**(Percentage)**

		Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
Returned Same Program	<b>Program</b>	<b>27.4</b>	<b>28.9</b>	<b>26.6</b>	<b>41.7</b>	<b>34.3</b>
	College	36.0	36.0	35.0	37.1	38.5
Returned Different Program	<b>Program</b>	<b>14.3</b>	<b>15.7</b>	<b>10.6</b>	<b>11.9</b>	<b>12.7</b>
	College	7.2	7.5	8.2	8.5	7.6
Graduated	<b>Program</b>	<b>9.5</b>	<b>10.8</b>	<b>5.3</b>	<b>3.6</b>	<b>9.8</b>
	College	7.7	8.1	8.1	8.3	8.0
Did not return Fall	<b>Program</b>	<b>48.8</b>	<b>44.6</b>	<b>57.4</b>	<b>42.9</b>	<b>43.1</b>
	College	49.1	48.3	48.8	46.1	45.8

**C. Academic Performance**

The average percent of college-level credits completed by Finance students is 88.9% over the last nine semesters. The average GPA over the last nine semesters is a 2.7, which is comparable to the College as a whole. The Finance program has significantly fewer students on academic probation than the College as a whole. At departure, many students experience either long-term or short-term success.

**Table 13**  
**Course Completion and Average GPA**

		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
% of college-level credits attempted/completed	<b>Program</b>	<b>92.2</b>	<b>92.1</b>	<b>84.8</b>	<b>83.4</b>	<b>86.6</b>	<b>93.2</b>	<b>90.5</b>	<b>86.4</b>	<b>91.2</b>
	College	88.9	88.7	87.1	88.5	87.6	89.4	88.2	87.1	86.7
Average GPA	<b>Program</b>	<b>2.9</b>	<b>2.75</b>	<b>2.46</b>	<b>2.52</b>	<b>2.57</b>	<b>2.87</b>	<b>2.7</b>	<b>2.56</b>	<b>2.81</b>
	College	2.64	2.62	2.59	2.64	2.61	2.67	2.65	2.60	2.59

**Table 14**  
**Academic Standing (percent)**

		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Good Standing	<b>Program</b>	<b>90.5</b>	<b>89.8</b>	<b>91.6</b>	<b>83.5</b>	<b>81.9</b>	<b>78.4</b>	<b>83.3</b>	<b>84.8</b>	<b>84.2</b>	<b>88.3</b>
	College	90.8	88.1	88.8	86.2	83.8	82.2	85	83.0	85.6	83.2
Dropped insufficient progress/poor scholarship	<b>Program</b>	<b>2.4</b>	<b>3.4</b>	<b>2.4</b>	<b>1.2</b>	<b>3.2</b>	<b>6.8</b>	<b>0</b>	<b>6.7</b>	<b>3.0</b>	<b>0</b>
	College	2.6	3.8	3.0	4.3	3.4	5.5	3.7	5.7	1.2	1.7
Probation - FT/PT/ Prov.	<b>Program</b>	<b>0</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>4.3</b>	<b>2.2</b>	<b>1.2</b>	<b>2.0</b>	<b>3.0</b>	<b>1.1</b>
	College	6.5	8.2	8.1	9.5	12.7	12.2	11.2	11.5	13.3	15.1

**Table 15  
Success at Departure (percent)**

Status		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008
Graduated	<b>Program</b>	<b>3.7</b>	<b>14.3</b>	<b>16.7</b>	<b>8.8</b>	<b>3.2</b>	<b>11.1</b>
	College	5.8	12.1	5.2	13.9	6.5	14.0
Long term success	<b>Program</b>	<b>48.1</b>	<b>50.0</b>	<b>16.7</b>	<b>35.3</b>	<b>41.9</b>	<b>41.7</b>
	College	38.3	38.4	35.5	35.3	33.6	35.6
Short term success	<b>Program</b>	<b>18.5</b>	<b>7.1</b>	<b>27.8</b>	<b>11.8</b>	<b>12.9</b>	<b>13.9</b>
	College	17.4	16.9	18.1	16.4	19.0	17.1
Unsuccessful	<b>Program</b>	<b>29.6</b>	<b>28.6</b>	<b>38.9</b>	<b>44.1</b>	<b>41.9</b>	<b>33.3</b>
	College	38.4	32.6	41.1	34.4	40.9	33.4

- Long term success is defined as departure with a GPA of 2.0 or greater and 12 or more cumulative hours earned.
- Short Term success is defined as departure with GPA of 2.0 or greater with 11 or fewer cumulative hours earned.
- Unsuccessful is defined as all departing students not otherwise classified including students who never completed a college-level course.

#### **D. Summary of Student Surveys**

629 total surveys were mailed or emailed (Survey Monkey) to current students, graduated students and former students in the Finance Program. Of the 629 surveys sent, 87 were emailed to current students via Survey Monkey, 425 were mailed to former students, and 117 were either mailed or emailed to graduated students. As of the writing of this review, 20 surveys were returned:

- 11 current students
- 4 graduated students
- 5 former students (did not graduate)

Responses of the 20 returned surveys are detailed below. Student written responses to the open-ended questions can be found in Appendix E. The return rate of surveys for all students was 3.1% and therefore care should be taken when interpreting the data. Of the 20 returned surveys, several students did not answer all survey questions. Therefore, the response rate for some of the questions was lower than the total survey response rate of 3.1%. This lower response rate to certain questions exacerbates the above caution when interpreting the data.

#### **Student Survey Results**

Eleven current Finance majors returned the survey. This represents 12.6% of the total surveys distributed to current students. Of the 11 responses received full time and part time attendance is almost evenly split with 6 attending CCP full time and 5 attending

CCP part-time. The majority of students enrolled desired to earn an Associate degree (7) and transfer to a four-year college (8). In terms of preparation for transfer, current students thought that the preparation they received was either good (5) or Fair (5). No student felt that the preparation received was *Excellent* or *Not Helpful*. Five of the current students felt that the Finance program was helpful in obtaining a job in their desired field, while 2 responded to this question as either *fair* or *not helpful*. While 6 of the student responses indicated that the Finance program was not helpful in getting their current job, it must be understood that 5 responded that they held their current job prior to entering the Finance program at CCP, and that 3 of 4 responses indicated the Finance did help them do their job better. Six responded that they are satisfied with the instruction they are receiving, but only 2 of 9 were satisfied with the support they were receiving from the program faculty.

Below are examples of student comments concerning the strengths of the Finance program, and what needs to be changed or added to improve the program. Full comments are available in AppendixB.

### **1. Strengths**

- Accounting and Stats class
- Good teachers and instructions (sic) that prepare of future job
- Seems like the Finance teachers care more. They do not want to just teach it, but they want u (sic) to understand it. They want the student to ask questions and they themselves ask questions

### **2. Changed/Added**

- Remove management classes
- More evening classes/courses on the roster each semester
- Some teachers are taking advantages (sic) on online classes, they make you pay for the book and also the website acces (sic) code. Then I (sic) think if we as student could practice more in the finance field like going to some office or administration to see how things really work such as accountant office, management etc...

Surveys from program graduates represent a 3.4% rate of return for this cohort. Three of the 4 graduated students indicated that they fully accomplished the educational objective they set for themselves at CCP, while the remaining student indicated the self-imposed objectives were partially met. Of the 4 students responding, 2 indicated that they wanted to achieve an Associate degree and transfer to a four-year college, and 1 wanted to achieve the Associate degree and improve his/her position in the current job held. All three did receive the Associate degree, and 2 transferred and successfully completed the Bachelor's degree. The remaining graduate who did not indicate transfer did improve his/her position at the current job held. The one student who indicated his goals were partially met did improve skills for the job currently held. Of the 3 that did transfer, CCP preparation for academic demands at the four-year school was rated as either excellent or good. Three of the 4 graduates were satisfied with the instruction they received at CCP, and all 4 indicated that they were satisfied with the support they received from the

program faculty. Two graduated students who transferred to a four-year college indicated that the college accepted all of their CCP courses, with one student indicating that he did not remember exactly but thought they did. One student did not transfer.

Surveys from former (non-returning) students represent a 0.94% rate of return for this cohort. Former students indicated that they enrolled in the Finance program to obtain an Associate degree for transfer or for improving job skills. Reasons given for not continuing in the program include conflict with family responsibilities, conflict with work responsibilities, relocating and academic difficulties. While in attendance, 4 of the 5 responded that they were satisfied with the instruction received. The 1 student responding “no” to this question indicated that the problem was taking their first program course on line “...and I am more of a hands on person”. Four of the 5 former students were satisfied with the support they received from the program faculty, and no suggestions were made to either improve or change the Finance program.

## **VI. Resources**

### **Facilities and Equipment**

There is no specific equipment dedicated to the Finance curriculum. Courses are taught in the same classrooms used by other faculty members.

### **How Well Current Facilities Support Program Needs**

The courses taught are classroom lecture style as well as in an online format. The instructors use available technology, including smart podiums, allowing for the integration of the internet in course instruction. *MyCCP* provides the instructors with the ability to post both PowerPoint presentations supplied by publishers, as well as web links to current events.

### **What Future Needs Can Be Identified**

As discussed above, development of a personal finance course should be considered. However, this should not entail any additional resources.

### **Technology**

Currently, there is no direct investment in technology for the discipline. Finance programs at baccalaureate institutions now employ the use of stock-ticker systems including LED tickers, and LED walls. However, this is not a recommended investment for a community college to pursue to advance technology at the Associate degree level.

### **Other Resources**

Customized text and online resources from publishers are provided to students.

## **VII. Demand and Need for the Program**

Dramatic national and international changes have occurred in the labor job market since the Finance Program was last reviewed in 1997. Even in the best of times, it is difficult to predict employment in any given sector, or any given geographic area. The financial industry, as were all labor markets, was profoundly affected by the changes that occurred on Wall Street and the resulting effect these changes had on the overall economy of the United States.

Initially, the intent of the CCP Finance program was to prepare individuals for entry-level positions in the banking industry. At that time there was an expressed need for Associate-degreed prepared individuals. However, a shift has occurred that resulted in automating and downsizing of staff in local and national banks. In addition, most banks prefer to provide their own in-house training for starting positions, and look to Baccalaureate or Master's prepared individuals for higher level positions. The future of Finance appears to be in the direction of Personal Finance and Personal Finance Counselors, and in Corporate Finance.

The US Bureau of Labor Statistics reports that the outlook for jobs in the finance sector (Sector 52) will grow by 8% in the decade of 2008 – 2018. Employment growth is expected to be as fast as average for all occupations, with some specific jobs in this sector being higher than others. However, all applicants will likely face keen competition, with those possessing a master's degree and certification having the best opportunities.

According to the Occupational Outlook Handbook "Almost every firm, government agency, and other type of organization employ one or more financial managers. Financial managers oversee the preparation of financial reports, direct investment activities, and implement cash management strategies. Managers also develop strategies and implement the long-term goals of their organizations. The duties of financial managers vary with their specific titles, which can include Financial Manager, Financial Analyst, Controller, Treasurer or Finance Officer, Credit Manager, Cash Manger, Risk and Insurance Manager, and Manager of International Banking."

"Regulatory changes and the expansion and globalization of finance and companies will increase the need for financial expertise and drive job growth. As the economy recovers from the recent Wall Street debacle and continues to slowly expand, both the growth of established companies and the creation of new businesses will spur the demand for financial managers. Employment of branch bank managers is expected to increase because banks are creating new branches. However, mergers, acquisitions and corporate downsizing are likely to restrict the employment growth of financial managers to some extent" (OOH).

**Table 16**  
**Projections for Job Growth - National Employment Matrix**

<b>Title</b>	<b>SOC Code</b>	<b>Employment 2008</b>	<b>Projected Employment 2018</b>	<b>Change 2008 – 2018 Number</b>	<b>Change 2008 – 2018 Percent</b>
Financial Manager	11-3031	539,300	580,500	41,200	8
Financial Analysts	13-2051	250,600	300,300	49,600	20
Insurance Agents	4103021	434,800	486,400	51,600	12
Personal Financial Advisors	13-2052	208,400	271,200	62,800	30
Securities Commodities Financial Services Sales Agents	41-3031	4317,200	346,700	29,600	9
Real Estate Brokers	41-9021	123,400	134,000	10,600	9
Real Estate Sales Agents	41-9022	394,400	458,200	63,700	16

Locally, the Philadelphia job market for Financial Analysts is on the decline due to the sluggish economy. Real Estate workers, which are included in Sector 52 by the BLS, are experiencing a similar job market loss due to the decline in housing sales. According to the July 2010 report of the Quarterly Census of Employment and Wages of the United States Bureau of Labor Statistics, the Finance and Insurance industry dropped 498 jobs from July 2008 to July 2009. Real Estate positions dropped 703 jobs during the same time period.

An Associate Degree in Finance could provide opportunities for entry level positions such as a Loan Officer, a Credit Analyst, or a Financial Planner (\$26,800), to higher paying jobs as a Financial Analyst (\$61,900), Investment Advisor (\$62,700) or Stock Broker (\$69,200). (US Department of Labor [www.bls.gov](http://www.bls.gov)).

Organizations start new Associate degree employees at an entry level where salaries will be between \$26,536 and \$33,691.

Without exception, opportunities for job seekers without the Bachelor's degree or higher are very limited.

Another way to look at "Need" for the Finance Program is to review "Demand" data. According to Table 17 below, there are a steady number of students declaring Finance as a major. However, the number of students graduating as Finance majors has declined with an unaccounted for dip in graduates in the Spring of 2009, which could be a reaction to the economic difficulties that emanate from Wall Street.



**Table 17  
Headcount & Graduates  
Fall 2005 – Spring 2010**

	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
<b>Head count</b>	84	88	83	85	94	88	84	105	101	94
<b>Graduates</b>		13		10		10		3		

Based on the limited job opportunities for a graduate with an Associate Degree, the need for a Bachelor's Degree to obtain employment, and the few graduates from the Finance program, an AAS Degree in Finance may no longer be viable. The students who would select the Finance AAS Degree program may benefit from selecting a program at the College that would prepare them for transfer to a baccalaureate program and success in the labor market.

### VIII. Operating Costs and Efficiency

With regard to Operating Costs and Efficiency, there are no dedicated assets or budgeted dollars dedicated specifically to the Finance program. Costs are shared resources that are a part of the Business Administration Department budget. Without a separate budget or specific line item within the Department budget, it is difficult to tease out meaningful operating costs.

**Cost to Operate** – The College produces data on department and program costs on an annual basis. These costs are based on all course offerings (main campus, regional centers, distance education and other off campus sites). Costs are shown as cost per credit hour and as direct cost per FTE. The definition of direct cost is all expenses charged against the instructional cost center plus an allocation of fringe benefits

BUSINESS & TECHNOLOGY CURRICULUM	DIRECT COST 2008-09	# of FTEs 2008-09	DIRECT COST per FTE 2008-09
FINANCE	\$254,060	84.5	\$3,006.62

**FINANCE  
REVENUE AND EXPENSE PATTERNS  
ANNUAL MAJOR FTEs AND AVERAGE DIRECT MAJOR COSTS  
FISCAL YEAR 2008-09**

Year	2008-9	2007-8	2006-7	2005-6	2004-5	2003-4	2002-3
<b>Direct Costs</b>	\$254,060	\$218,880	\$201,908	\$178,866	\$184,232	\$188,370	\$177,107
<b># of FTE's</b>	84.5	73.4	69.9	67.9	74.5	80.6	78.5
<b>Direct Costs/FTE</b>	\$3,006.62	\$2,983.03	\$2,889.55	\$2,635.43	\$2,474.29	\$2,336.38	\$2,256.14

The above table shows that while the number of FTE's has increased from 2002 to 2009, there has been an increase in both the Direct Costs and Direct Costs/FTE. The increase in Direct Costs since 2002-03 is consistent with the increase in both FTE's and Direct Costs/FTE. In

comparison to other Business and Business related programs, the Finance program is efficient and costs significantly less to run.

**FINANCE  
REVENUE AND EXPENSE PATTERNS  
TOTAL PROGRAM COSTING FISCAL YEAR 2008-2009  
WITH COMPARISON TO PRIOR FISCAL YEARS**

Curriculum	# of FTE's	Total Operating	2008-2009	2007-2008	2006-0007	2005-2006	2004-2005	2003-2004	2002-2003
FINANCE	84.5	\$592,828	\$7015.72	\$6924.61	\$6550.11	\$3124.46	\$5377.42	\$5137.72	\$4898.29

The cost per FTE has continued to increase since 2002-03 resulting in the most recent (2008-09) amount of \$7,015 (Total operating/# of FTE's). There is an unaccounted for decrease of \$2,252.96 in the cost per FTE in 2005-06 when compared to 2004-05. Current data available does not indicate why this significant decrease occurred. The following year (2006-07) shows an increase of \$3,425.65, approximately \$1,200 more than the drop between 2004-05 and 2005-06.

**IX. Findings and Recommendations**

The Finance curriculum leads to an Associate in Applied Science (AAS) degree. This curriculum provides a strong business background with special focus on financial analysis. Completion of this curriculum will prepare students for positions as branch bank manager, consumer loan office manager, analysts, statistical assistant in a securities office or other positions in the banking, security, investment and loan business.

The goal of the Finance Program is to provide the student with sufficient skills to enter the labor force in the Finance field.

A committed and dedicated faculty is a strength of the program, as are the specific Finance, Statistics and Economics courses upon which the program is based. Faculty academic background and experience is appropriate for program instruction and the courses which serve as the spine of the Finance program are essential for understanding the field. The content of the courses and the rigor demanded by the faculty allow for a strong preparation.

However, the Auditor found several specific areas that need closer examination and strengthening if the program is to continue to achieve its stated mission and goals. When the program was first developed and with its initial implementation, there were reasons to believe that the twin goals of immediate job placement and of transfer to seek a baccalaureate degree were highly prized, functional and appropriate. However, since the inception of the program several studies were performed which support the national focus on the baccalaureate degree at the requisite entry point for those seeking a career in finance.

While there is some interest by students to pursue the Finance program at CCP, the number of new majors and the number of graduates continues to be few. This could be a concern to the faculty in the program and to the College at large. Should the College continue to support a program with limited enrollments?

In addition, a review of the Finance program at a major university in the Philadelphia area (Temple University) shows relatively few transferable courses that can be taken at CCP for the baccalaureate. It is suggested that this may contribute to the low number of majors and graduates. One of the program's most pressing weaknesses is found in Strategic Direction II with regard to recruitment and student retention.

Course sequencing, while appearing to be logical and appropriate, suffers with few majors in the early course (FIN 191) that could affect whether subsequent and sophomore level courses have sufficient enrollments to run. This is problematic to both the majors who need these courses and the College as it addresses effective use of resources.

The Finance degree as a career program degree is difficult for students to obtain. Because the enrollment is low in FIN 191, and without an organized student cohort, then the sequential course listing of FIN 292 will subsequently have low or lower enrollment, therefore decreasing the number of potential graduates. Because the 200-level courses do not transfer to business schools accredited by the premier business school accreditation association, AACSB, the benefit of taking the courses at CCP becomes even more problematic.

The emergence of a restructured business/business administration curriculum makes these majors more attractive for students who can successfully transfer and take the courses at the transfer institution resulting in a baccalaureate degree. This raises the question as to whether or not Finance should cease to exist as an AAS degree program, or become an option in the Business or Business Administration program. This would eliminate the terminal degree status of the program while allowing greater flexibility for transfer.

With the national press for greater accountability and the emphasis of the Middle States Commission on Higher Education (MSCHE) for assessment at all levels, it is incumbent to review and refine Student Learning Outcomes as well as program outcomes and provide measurable assessments of the effectiveness of the program in meeting these outcomes if the College is to continue offering the Finance Program in any format. In response to the Strategic Direction I in the 2008-2012 Strategic Plan for the College, the Finance curriculum is currently being evaluated for better program, course and classroom assessment.

Thus, the Finance Program at CCP is at a major crossroads, faced with significant challenges and decisions that will affect the future direction of the program. Indeed, these challenges need to be seriously addressed and decisions need to be made that affect the very existence of the program.

The Finance Program at CCP is experiencing many pressures as defined in this audit with the most salient being:

- Low enrollments in Finance courses
- Confusion over whether certain courses are Economics or Finance courses
- Finance courses not being required by other Business majors
- Preferred hiring of Baccalaureate degreed applicants by the business sector
- Transfer requirements imposed on AACSB accredited 4-year colleges
- Increasing interest by students in online education

These and other pressures will have a major impact on the decisions that need to be made.

The defining question then becomes which direction should the CCP Finance Program take:

- Continue as an AAS program with both terminal and transfer goals
- Change the program to an AA orientation so as to become transfer only
- Eliminate the AAS designation and create a Finance option within the Business Administration degree
- Eliminate the Finance program

## **Recommendations**

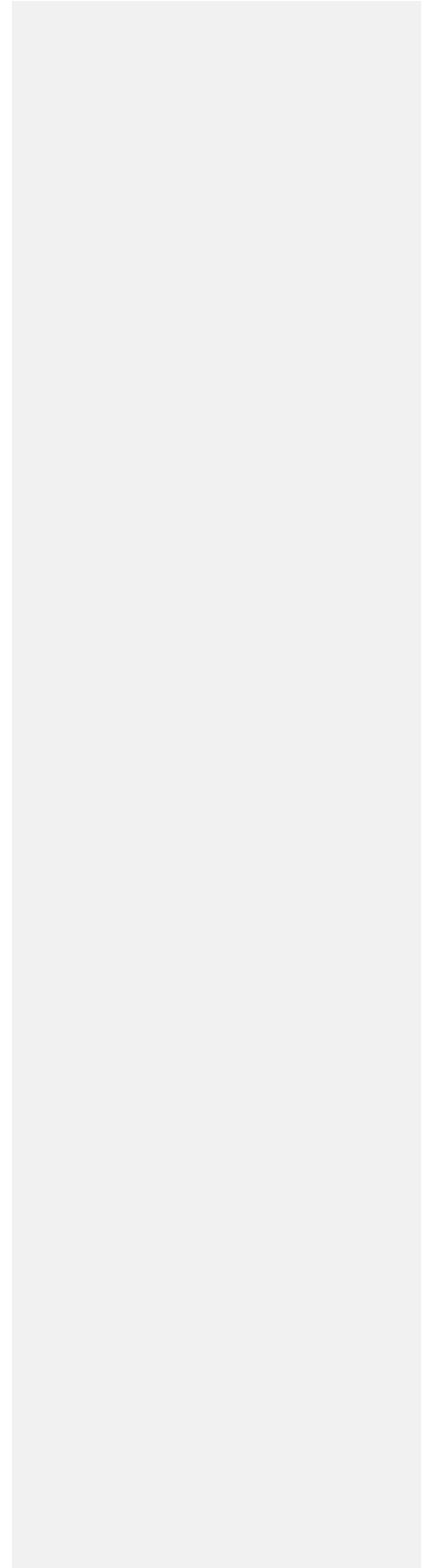
Based on the findings and observations of this audit report for the Finance program, the Auditor makes the following seven recommendations:

It is the recommendation of this Auditor that the College consider the following:

1. The College delete the Finance Program from its program offerings.
2. The College eliminate Finance as a stand-alone AAS degree and makes it a program option/concentration within the Business/Business Administration AA program.
3. If the Finance program is to continue as an option in the Business/Business Administration program, revisions must be made to align it more closely with Temple or another regional baccalaureate program. It is recognized that Temple's AACSB accreditation makes this a very difficult, if not a seemingly impossible task.
4. The College identify several area 4-year colleges, or colleges in relatively close proximity to CCP that have a Finance program and are not members of AACSB to provide CCP students with more viable transfer options. Failure to take this step decreases the viability of the transfer option and puts both students and the program in serious jeopardy.
5. The College develop a credit course in Personal Finance.
6. The College offer a proficiency certificate that emphasizes personal finance.
7. The program faculty and the Office of Academic Assessment and Evaluation continue assessments at the course, program and institutional level, using this information to support program change, as well as being in compliance with MSCHE.

# **APPENDIX A**

Report of Minority Faculty Fellow  
2006



May 5, 2006

Dr. Judith Gay, Vice President Academic Affairs  
Community College of Philadelphia  
17<sup>th</sup> & Spring Garden Streets  
Mint Building: M2-34  
Philadelphia, PA 19130

Dear Dr. Gay:

Please find enclosed a copy of the report of my research findings as the Minority Fellow of Finance in the Economics and Accounting Department. I was instructed to send a copy of this report to you by Ardencie Hall-Karambe with the intention of describing my experience as a Minority Fellow as well as provide a copy of my research findings.

As an adjunct member of the Economics and Accounting Department for the past two years, I must report a very positive experience. In the last semester alone, with the support of Alan Davis, the Department Chair, I have been given the opportunity, to work as a Fellow in the Department and, to participate in the interviewing process for two full-time vacancies within the Department. Departmental encouragement and guidance throughout the process contributed to the completion of the project despite obstacles in participation from students. Other faculty members also shared perspective on past research studies, specifically, Professors C. Tremblay and J. B. Johnson.

Ardencie Hall-Karambe who served as the Minority Fellow Chair met with me at the project's inception and facilitated the administrative process. She also ensured that I participated in the Minority Fellow Panel Discussion: Closing the Gap on April 7, 2006 which allowed me greater exposure to the administration, including yourself, as well as interaction with other fellows in other departments.

Overall, my experience as a Minority Fellow has been paramount in helping me increase my depth of understanding about the college and it has helped me to identify ways, in which, as a prospective faculty member, I can effectively contribute to the overall academic environment. I would like to express my sincere gratitude to those hard-working individuals who took the

additional time required to help me with this project. Those persons have been named. Thank you for the opportunity.

Sincerely,

Wayne W. Williams, Finance Fellow – Spring, 2006

cc Ardencie Hall-Karambe  
Alan Davis

Community College of Philadelphia  
Finance Fellow Project – Spring, 2006

Presented to:

Alan Davis, Department Chair, Economics & Accounting  
Arndecie Hall-Karambe, Minority Fellows Committee Chair

Prepared by:

Wayne W. Williams, Minority Fellow – Finance

May 5, 2006

Project Description: To identify students who are Finance majors and registered in our Finance Curriculum to learn what their goals are and how we can better meet their needs while at Community College of Philadelphia.

Project Outcomes: The findings of this project will be reviewed and will guide future curriculum and/or course revisions and scheduling.

Process: Survey the Finance majors enrolled in the Spring 2006 semester to determine:

- How the student became a Finance major
- What their goal/s are while attending CCP
- Where would the student prefer to take their Finance courses
- When would the student prefer to take their Finance classes
- What their goal/s is/are upon graduation

With the assistance of the Economics and Accounting Department Chair, Alan Davis, a survey letter was developed and mailed to each student that was currently registered as a Finance major as of Spring, 2006. Of the (41) members of the group who received a letter, a sampling of (5) respondents, or 12% of the population was received. In addition, (3) students were personally interviewed. The total population sampling of (8), or 20%, is used to evaluate the established criteria. The objective to coordinate a Finance Roundtable discussion was not achieved and should be considered for greater participation and more accurate, conclusive findings.

However, there are some revealing data which should help the administration identify the goals and objectives of the Finance curriculum at Community College of Philadelphia (CCP). Compared to other community colleges<sup>1</sup>, CCP is the only institution offering a two-year degree in Finance. While there is an on-line program available through DeVry University, their curriculum requires in-class presence. Hence, it can be concluded that CCP may represent one of the only options for a two-year degree in Finance in the Delaware Valley. There is an apparent shift in curriculums at these other institutions that emphasizes Entrepreneurship as an alternation major in Business Administration.

Additionally, there have been some changes in the financial services industry, and within academia, which could affect our Finance majors such as the requirement of a four-year baccalaureate degree to acquire professional certifications such as the Certified Financial Planner<sup>2</sup>. Internet job searches have revealed that many employers offering entry-level corporate employment opportunities may require a bachelor's degree as the minimum requirement. In an interview with a current student majoring in Finance at CCP, he stated, "I plan to switch my major to Business Administration before I reach thirty credits, because Temple won't accept my credits as a Finance major."

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<sup>1</sup> There is no Finance Program as a major available at: Bucks County Community College, Montgomery County Community College, Burlington County Community College, Delaware County Community College and Peirce College.

<sup>2</sup>Beginning in 2007, in addition to fulfilling the education requirement, a bachelor's degree in any discipline will be required in order to attain CFP certification. The college degree requirement is a condition of initial certification; it is not a requirement to be eligible to take the CFP® Certification Examination and does not have to occur before sitting for the exam or fulfilling the work experience. A bachelor's degree in any major from a regionally accredited U.S. college or university will be accepted, and evidence (photocopy of degree) will be required at the final stage of initial certification.



The data acquired from the survey respondents is revealing in many ways to their academic intention. All of the survey respondents answered that they self-selected Finance as their major and that they intended to complete the degree program at CCP. Despite not being encouraged to major in finance, the respondents clearly show that they have a keen interest in the study of finance. Sixty percent of the respondents stated that they plan to continue their finance studies at a four-year college. Of those who intend to complete their four-year degrees, they intend to complete their studies at either LaSalle University or Temple University, which are both area schools. One interviewee stated that he intended to transfer upon completion of the Finance curriculum at CCP to Drexel University.

The forty percent of the respondents, who intend to seek employment in the financial services industry upon completion of their CCP degree requirements, stated that they would pursue opportunities in banking or as a financial analyst. Employment opportunity for those with a two-year degree is shrinking due to increasing educational and work experience requirements in the industry. For example, employment as an entry-level Financial Analyst requires a bachelor's degree at some of the area's largest financial services employers<sup>3</sup>. However, there are many alternative career opportunities in the risk management sector of the financial services industry that students with an associate degree could pursue. Many of the higher-paying positions may require professional licensing and have a commission-based compensation package that our graduates would qualify to pursue. Because the students have self-directed their course of study in Finance, it is important that there be direct intervention through career counseling to capitalize upon the value of the Finance curriculum offered at CCP.

The retention rate amongst the respondents is high since none of the respondents answered that they chose finance as a major with the sole intent of earning credits in the area just to determine if the major was "right for me". The majority of the students chose weekdays versus weekends, which was the least preferred time, as the preferred time for taking courses. Those interviewed stated that they held part-time employment that allowed for them to take daytime courses. One interviewee was an employee of Wachovia bank and stated that he was eligible for up to \$5,000.00 of employer-based annual reimbursement of tuition. While this made his education affordable at CCP, he was concerned that he would have financial obstacles once he transferred to Temple University. Like CCP, both LaSalle University and Temple University offered the majority of their finance courses as part of their daytime course curriculum. However, forty percent of the survey respondents stated that they would like finance courses to be offered in the evenings and one such respondent stated that weekend classes was their primary preference for finance course offerings. Those students who prefer evening and weekend course offerings imply that they have full-time employment or lifestyle obligations that make the evenings and weekend course offerings more conducive to their respective schedules.

Of the four campuses, the Main Campus was statistically the most preferred and convenient location for the population studied. Second was the Northeast Regional Campus. Only one student indicated that they were interested in taking the courses on-line which may be more reflective of the CCP student population seem resistant to the integration of technology in their education versus in-class instruction. With regard to technology, I find it personally compelling that only one student respondent provided a CCP email address when given the option of

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<sup>3</sup> Job Searches at the following corporate web sites: [www.wachovia.com](http://www.wachovia.com) (Wachovia), [www.vanguard.com](http://www.vanguard.com) (Vanguard), [www.prudential.com](http://www.prudential.com) (Prudential)

providing a personal email address and/or a CCP email address despite participating in a CCP research project. Alternatively, all respondents provided a personal email address. Obviously there is an inherent value to the in-class instruction within the finance curriculum that is a testament to the efforts of the faculty providing instruction in this area. The majority of courses currently offered in Finance seem properly scheduled during daytime hours on Main Campus.

The minority of respondents actually took finance courses required to complete the degree despite pursuing this course of study. The required finance courses to complete the degree includes: (1) FIN 151 – Insurance and, (2) FIN 191 – Financial Management which are equivalent to many of the first level courses offered at undergraduate institutions that our students are interested in matriculating into. Of those who did take courses in finance, the comments were very positive. Comments included, “Yes, I liked the wide variety of information taught and discussed which broadens my business and economic focus and interest and in other business areas like accounting and administration.” Another student replied, “every course I have taken, I learned more and more information about the finance industry”.

## CONCLUSION

The purpose of this study was to understand the goals of CCP finance majors and to identify ways that the College can assist these students. Upon interviewing those registered with finance as their major, I found that none of the students were comfortably capable of verbally articulating the difference between accounting, economics or finance as an area of discipline, despite each program having a clearly different description. In addition, inquiry discovered that none of those interviewed had a role model or a mentor in the area of finance.

Considering that all of the respondents self-selected finance as a major, a clear opportunity exists to introduce the myriad of career opportunities to the students through the coordination of the CCP curriculum with industry professionals and institutions. Self-selection and a general lack of knowledge about the evolution and requirements of the industry suggest a need for academic advising to those registered as Finance students. The restrictive nature of many of the area’s undergraduate institutions regarding transfer from our Finance degree program may also suggest that a revision from an A.A.S. degree in Finance to a A.A.S. degree in Business Administration with a Certificate in Finance may prove more valuable to the prospective future CCP graduate. Clearly finance is a critical component of study in business and our faculty and administration have clearly made the courses relevant to the students. Lastly, it is suggested that inter-group interaction amongst these self-selected majors be encouraged to increase networking opportunities while enrolled at CCP.

April 3, 2006

Dear Finance Major:

You are receiving this letter because you are currently registered as a Finance major here at the Community College of Philadelphia. In order to ensure that we are meeting the expectations of our Finance students, we are requesting your participation in a short survey which will help us gauge a few important considerations in the development of the Finance curriculum.

The survey listed on the back of this letter will take approximately five minutes to complete. Please complete the survey questionnaire, place in the self-addressed envelope and mail it back by Friday, April 14, 2006. Alternatively, if it is easier for you to do, bring the completed form to the Main Campus, Bonnell Building – Room B2-22 (Division of Business & Technology).

We are planning a roundtable discussion for Finance majors on Thursday, April 20, 2006 on the Main campus to discuss the results and to facilitate live discussion about the Finance curriculum here at the Community College of Philadelphia. If you are interested in attending, please RSVP via email to: Wayne Williams at [wwilliams@ccp.edu](mailto:wwilliams@ccp.edu).

Thank you for taking the time to complete the survey. Your perspective is invaluable.

Sincerely,

Wayne W. Williams, Finance Fellow

**COMMUNITY COLLEGE OF PHILADELPHIA**  
**FINANCE MAJORS QUESTIONNAIRE – Spring 2006**

Which of the following choices, best describes your goal upon graduation from CCP:

- a). Transfer to a four-year school
- b). Seek employment in the financial services industry

If you answered (a) to the prior question, which four-year school(s) are you considering?

\_\_\_\_\_

If you answered (b) to the prior question, what position or company interests you?

\_\_\_\_\_

How did you become a Finance major at Community College of Philadelphia?

- a). Self-selected the program.
- b). Placed into the program by a counselor and/or advisor.

What was your goal in majoring in Finance?

- a). Complete the degree program at CCP.
- b). Earn credits in the subject area to determine if this is the right major for me.

When should courses in Finance be offered?

- a). weekdays
- b). weeknights
- c). weekends

Where should courses in Finance be held? Choose top (2) choices:

- a). Main Campus
- b). Northeast Regional Center
- c). Northwest Regional Center
- d). West Regional Center
- e). On-line

Have you taken any courses in your major? If so, which courses have you completed?

\_\_\_\_\_

Did you enjoy the course? If so, what did you like about the course. If not, why not?

\_\_\_\_\_

Do you use a different email address than the one provided by CCP? If so, what is it?

\_\_\_\_\_ @ \_\_\_\_\_

What is your CCP Email address: \_\_\_\_\_ @

ccp.edu **INSTRUCTIONS:** Thank you for your participation. Please enclose the completed survey in the self-addressed envelope or return to the Business & Technology Office (B2-22) in the Bonnell Building Attn: Wayne Williams by April 21, 2006.

## **APPENDIX B**

### Comments from Student Surveys

- Graduates
- Current Students
- Former Students

**NOTE:** Surveys for all three cohorts were collected via US Mail and electronically through Survey Monkey. To view the complete reports for all cohorts please contact the Office of Academic Assessment and Evaluation. Appendix F contains the student responses for all cohorts, collected in both formats for the open-ended questions only. Not every individual who responded to the questionnaires responded to all the questions.

## **Graduates:**

- Q. Which of the following reasons were important to you when you enrolled in the Finance Program at CCP?
- To obtain “dual” degrees in Accounting and Finance
- Q. Did you accomplish the educational objectives that you set for yourself at Community College of Philadelphia?
- That helps to move to the position of Inventory Control Specialist and we achieve the goal of 99% against 1.2 million cases counted.
- Q. Name of the most recently attended college:
- Kennedy-Western (sic) University
  - Drexel University
  - CCP
  - Rosemont College
  - Peirce College
- Q. If transferred to another college, how well did the Finance Program prepare for the academic demands at the college to which you transferred?
- Kennedy-Western offered an online degree program for a combined BS and MS degree. Credits received at CCP were applied to both programs.
  - Overall it is good and I really appreciate all courses.
  - Once enrolled in my Finance and certain management courses some of the material helped prepare me for my business courses.
- Q. Were you satisfied with the support our received for the program faculty? Give examples.
- Instructor availability.
  - They helped choose my courses in a timely manner.
  - Advice for employment
  - Professor feedback and one-on-one time if needed.
  - Guidance Counselor was excellent in helping me to pick and schedule classes
- Q. What do you think/feel are the strengths of the CCP Finance Program?
- The program laid a definite foundation for risk management and a good introduction to Financial Management. I entered the program with interests in Real Estate and Accounting and gained a useful perspective in these areas.
  - They give the essentials by using the same curriculum as 4-year colleges. That’s why CCP is excellent by taking all courses you need for a 4-year college.
  - Good courses when offered.
  - Open door to an accounting career

- Q. What do you think/feel needs to be changed or added to the Finance Program in order to improve the Program?
- We need to add more Accounting courses and maybe some courses in logistics and transportation part of warehousing and inventory.
  - Other courses more frequently.
  - I felt that Accounting I prof needed to learn better teaching skills in addition to the macroeconomics prof he gave tons of notes and some of the hardest exams while he never really explained the materials we copied the notes while he slept.
- Q. What is your current job title and what type of work you do in your primary job?
- Consultant (self employed)
  - Assistant Controller
  - Inventory Control Specialist – Have to keep accuracy level at 99% at all times. Control of damages/scrap/warehouse of 800,000 sq. ft. and almost 2,000,000 cases of hygiene products, incontinences and diapers.
  - Junior Accountant – process check, account reconciliation.
  - Bank Teller – Account for deposits & withdrawals, other activities as assigned.
  - Clerk Typist III – Judge Assistant
- Q. Was your enrollment in the Finance Program helpful to you in getting this job?
- No, Still at current job as when I enrolled in the Program
- Q. Were you employed in this job prior to enrolling in the Finance Program at CCP?
- No
  - No
  - No, Finance Program helps to understand the concept of the inventory accuracy and customer satisfaction.
  - No, I'm from another culture. I had to be able to prove that I might function in an English banking environment.
  - Yes.
  - No
- Q. What courses or topics could have been added to the Finance curriculum that would have been more useful to you in performing your current job?
- It is important to know Microsoft Office applications such as advanced courses in Excel and Access the use of spreadsheets xxxxxx in Access. Very demanded (sic).
  - None
- Q. How many hours per week on average do you work at this job?
- 20
  - 40
  - 35

- 45 – 50
- 37.5
- 40

## **Current Students**

- Q. Which of the following reasons were important to you when you enrolled in the Finance Program at CCP?
- Get general knowledge of finance
- Q. How well is the CCP Finance Program preparing you for transfer to another college?
- The classes I have taken at the main and the NW campus has been a good experience most of the time. Now that I'm closer to the end I'm finding that a lot of classes aren't available when I need them, and that is beginning to be a little frustrating. Because of this I've been forced to take two classes online and both times the experience was not a good one. The professors are really not interested, they don't respond to emails and if/when they do it's too late. It really seems as if it's just an easy way to collect a paycheck for them.
  - I haven't started the Finance Program. It has been my dream to do this course as major and I will do my best to be one of your best students because it is something that I want to master. I put everything before God.
  - Currently i'm (sic) in my first semester, things are going well so far, so i (sic) don't have much to comment on just yet, although i'm (sic) sure it would be a positive one.
  - Most of the credits are transferrable to different schools.
  - Actually, I haven't take (sic) a lot of major courses yet.
  - As a Finance Major, the Finance courses i (sic) am taking really grab my interest. I prefer the teachers that teach the Finance courses opposed to those who teach the other general education courses.
- Q. How well is the CCP Finance Program preparing you for obtaining a job in your desired field?
- Teachers do not seem very engaged at all in some online courses. They make reference to books they never asked students to read. They utilize presentations that contain outdated or incorrect data, often confusing students about reading material and exam expectations.
  - A lot of courses are very informative.
  - Currently i'm (sic) in my first semester, things are going well so far, so i (sic) don't have much to comment on just yet, although i'm (sic) sure it would be a positive one.
  - There are no contracts in force with employers looking to hire graduates of the program.
  - Actually, I haven't taken a lot of major courses yet.



- I am not too far into my Finance courses. I completed my general education courses first and I am focusing on the finance courses now. So far so good.

Q. Do you think you are accomplishing the educational objectives that you set for yourself at Community College of Philadelphia?

- I came into CCP with the mind frame that this is just the beginning of my future. Starting at CCP I realize that I really do appreciate education and that will get me where I need to be.
- Too early to make a comment just yet. Although I am sure it will be a positive one.
- Would like to have completed it faster.

Q. What do you think are the strengths of the Finance Program?

- Accounting and Stat classes
- I have only taken two courses.
- Finance is a major part of everyday life and having this program will allow many people who can not afford to go straight to a university, or affraid (sic) to start at a university an opportunity.
- Its contents in terms of given courses.
- Too early to make a comment just yet. Although I am sure it will be a positive one.
- The courses encompass a variety of the things.
- Good teachers and instructions that prepare people for future job.
- Seems like the Finance teachers care more. They do not want to just teach it, but they want u (sic) to understand it. They want the student to ask questions and they themselves ask questions.
- Not bad.

Q. What do you think needs to be changed or added to the Finance Program in order to improve the program?

- Remove management classes.
- It seems to me that the college just send (sic) everybody to the 098 courses without regards of college level writing preparation. They see a foreign student or a person who has been out of college for a while and they just assume the person needs the curse. They should a better job of weeding out people out of unnecessary courses.
- More evening classes/courses on the roster each semester.
- Some teachers are taking advantages on online classes. They make you pay for the book and also the website acces (sic) code. Then i (sic) think we as student (sic) could practice more in the finance field like going to some office or administration to see how things really work such as accountant office, management etc...

- I'm not sure. I haven't attended another college so I can't draw on any pro's and con's at this time.
  - Add back the finance course that were removed as an option to the student on a particular study (sic).
  - Help me learn more skills about finding a job.
  - Added (sic) more mathematics courses.
- Q. Are you satisfied with the instruction you are receiving? If no, why not?
- At 75%
  - I would like for my instructors to issue to (sic) book/s for the course and not teach from their own personal experiences. Very hard to follow for home work reasons!!!
  - Because the professors seem to get disgruntled when their advise/opinion is not used by the student.
- Q. Are you satisfied with the support you are receiving from the program faculty? If yes, please give examples of the type of support you are receiving.
- Nobody is ever available to pick up the phone. For people who work is a pain in the neck to have to make an extra trip to the college just to get a question answered.
  - Mr. Lindsay Sinclair and Ms. Diane Kae have been very supportive and informative. Keep up the good work!!! During me (sic) enrollment process they were there with me all the way. Without them my enrollment in ccp (sic) probably wouldn't have been a smooth transition as it has been. Again, keep up the good work!
  - It is hard for your thoughts to be heard when the faculty are not only coworkers but friends outside of the school environment.
  - For example, my one teacher helped everyone in the class understand the major they should be taking if planning to go to a four year College (Core to core agreements, etc...).
- Q. Are you satisfied with the support you are receiving from the program faculty? If no, please give examples of the type of support you are receiving.
- Tutoring
  - Pick up the phones ;-)
  - I have to be honest and say that not all, but many of the faculty at CCP can be rude and/or not very helpful. Through out the years at CCP I have had to find my own way many times.
  - I need the faculty to get involved more.
  - I haven't turn to the faculty for help and I don't know where to get help.
- Q. What is your current job title and what type of work do you do in you primary job?
- I am the Executive Assistant for the CEO of a financial company.
  - Claims analyst – Mortgage Insurance/Default and Foreclosures
  - I'm self employed. I provide transportation to people.

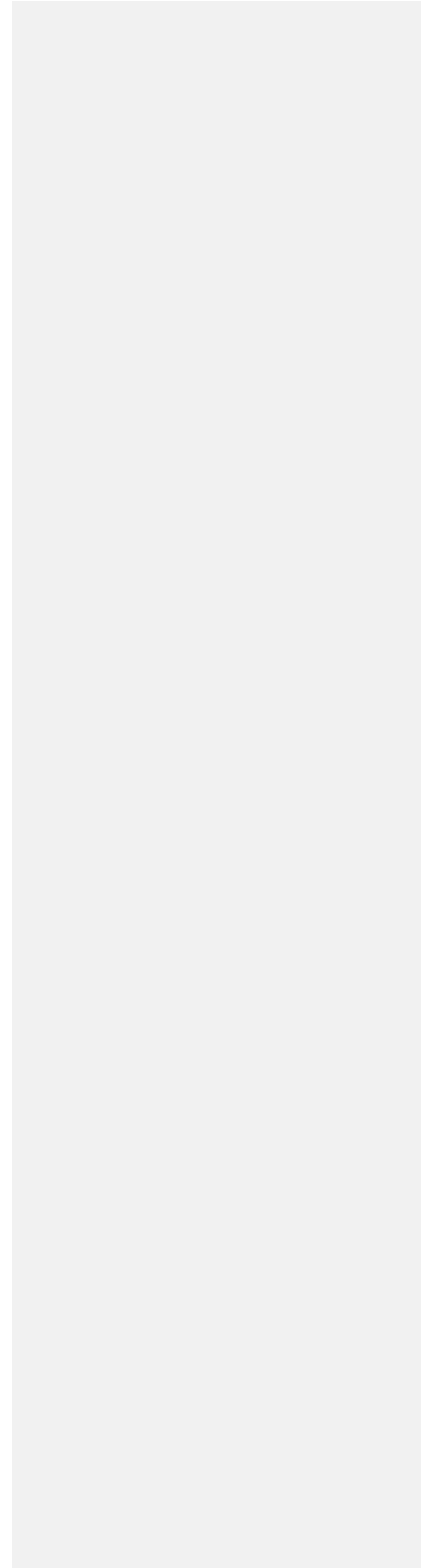
- Tutor
- Waiter

- Q. How could your Community College of Philadelphia education be more useful to you in performing your job?
- It is not applicable.
  - To just continue to provide courses.
- Q. How many hours per week on average do you work in this job?
- 40 hours per week
  - 45
  - 45
  - 2 hours
  - 30 – 40

### **Former Students**

- Q. Which of the following reasons were important to you when you initially enrolled in the Finance program at CCP?
- I currently work as a Payroll Booker and want to further my education and become Payroll Administrator and then an Accountant.
- Q. What factors led you to leave the Program before completing it?
- I didn't leave. My company gives us a set amount a year for tuition reimbursement.
  - I'm still in the program. I need to take the fall off for my children.
  - Relocated.
- Q. Which of the following describe what you have done since leaving CCP?
- I am still working and plan on returning in the winter to retake Macroeconomics 181.
  - Obtained an Associates degree.
- Q. What do you think are the strength of the Finance Program?
- I haven't been in the program long so I really don't know at this point in time.
  - The Finance Program really helps because it's a struggle to pay for education the economy.
  - It is a good major for someone like me.
  - Can't remember. Has been a long time.
- Q. Were you satisfied with the instruction your received?
- No. Reason being is because I took my first finance class online and I am more of a hands-on person.

- Q. Were you satisfied with the support you received from the program faculty? If yes, please give an example of the type of support you received.
- The faculty helped with choosing my classes and was there for me at all times.
  - Always very helpful. Didn't mind explaining things further.
- Q. What do you think needs to be changed or added to the Finance Program in order to improve the program?
- I was satisfied. I don't know what needs to be improved.
  - I don't think so.
  - Can't remember.

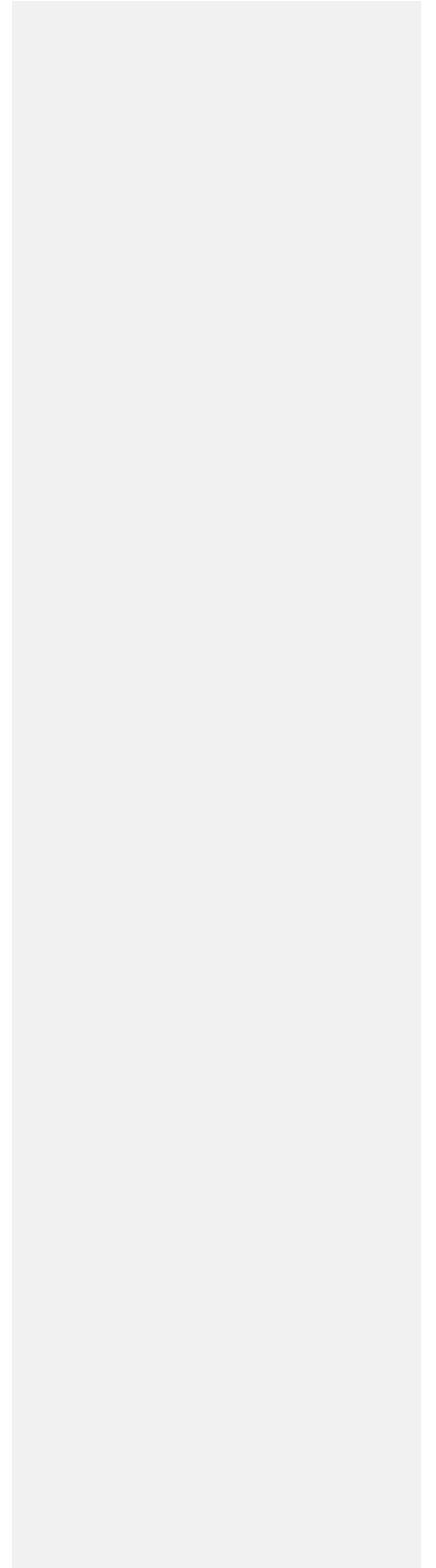


# **APPENDIX C**

Economic Modeling Specialists, Inc.

Data Report

Economic Modeling Specialists, Inc.



## **Data Sources and Calculations**

### **Industry Data**

In order to capture a complete picture of industry employment, EMSI basically combines covered employment data from Quarterly Census of Employment and Wages (QCEW) produced by the Department of Labor with total employment data in Regional Economic Information System (REIS) published by the Bureau of Economic Analysis (BEA), augmented with County Business Patterns (CBP) and Non-employer Statistics (NES) published by the U.S. Census Bureau. Projections are based on the latest available EMSI industry data, 15-year past local trends in each industry, growth rates in statewide and (where available) sub-state area industry projections published by individual state agencies, and (in part) growth rates in national projections from the Bureau of Labor Statistics.

### **Occupation Data**

Organizing regional employment information by occupation provides a workforce-oriented view of the regional economy. EMSI's occupation data are based on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. The occupation-to-program (SOC-to-CIP) crosswalk is based on one from the U.S. Department of Education, with customizations by EMSI.

### **Educational Attainment Data**

EMSI's educational attainment numbers are based on Census 1990, Census 2000, the Current Population Survey, and EMSI's demographic data. By combining these sources, EMSI interpolates for missing years and projects data at the county level. Educational attainment data cover only the population aged 25 years or more and indicate the highest level achieved.

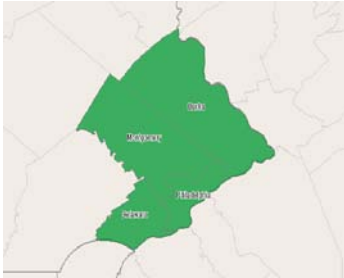
### **State Data Sources**

This report uses state data from the following agencies: Pennsylvania Department of Labor and Industry, Center for Workforce Information and Analysis.

**Region Info**

**Region: Phila area**

County Areas: Bucks, Pennsylvania (42017), Delaware, Pennsylvania (42045), Montgomery, Pennsylvania (42091), Philadelphia, Pennsylvania (42101)



SOC Code	Description	2011 Jobs	2020 Jobs	Change	% Change	Openings	Openings %	Openings	Openings urly Wage	Education Level
13-2051	Financial analysts	7,934	9,254	1,320	17%	2,567	32%	285	\$26.33	Bachelor's degree
13-2052	Personal financial advisors	14,292	18,666	4,374	31%	5,678	40%	631	\$14.08	Bachelor's degree
13-2053	Insurance underwriters	1,854	1,704	(150)	(8%)	514	28%	57	\$29.13	Bachelor's degree
13-2061	Financial examiners	335	431	96	29%	151	45%	17	\$39.74	Bachelor's degree
<b>Total</b>		<b>24,415</b>	<b>30,055</b>	<b>5,640</b>	<b>23%</b>	<b>8,911</b>	<b>36%</b>	<b>990</b>	<b>\$19.68</b>	

Source: EMSI Complete Employment - 4th Quarter 2010

**Region Info**

**Region: Philadelphia, Pennsylvania (42101)**

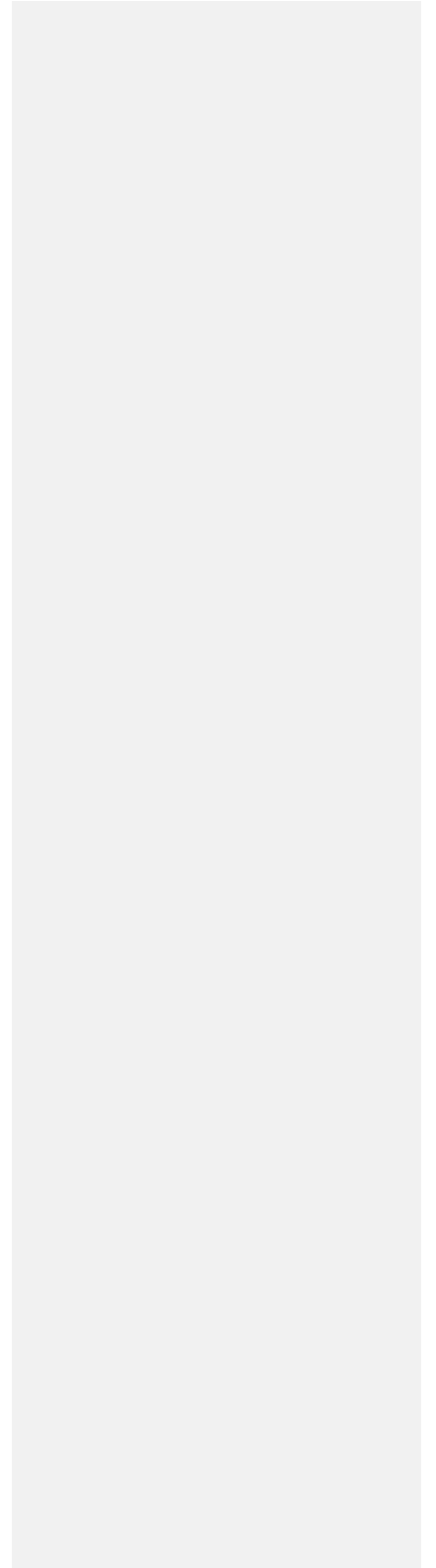


SOC Code	Description	2011 Jobs	2020 Jobs	Change	% Change	Openings	Openings %	Annual Openings	2010 Median Hourly Wage	Education Level
13-2051	Financial analysts	2,334	2,654	320	14%	692	30%	77	\$33.93	Bachelor's degree
13-2052	Personal financial advisors	2,361	2,911	550	23%	770	33%	86	\$21.74	Bachelor's degree
13-2053	Insurance underwriters	624	506	(118)	(19%)	171	27%	19	\$32.16	Bachelor's degree
13-2061	Financial examiners	204	270	66	32%	100	49%	11	\$38.26	Bachelor's degree
<b>Total</b>		<b>5,523</b>	<b>6,340</b>	<b>817</b>	<b>15%</b>	<b>1,733</b>	<b>31%</b>	<b>193</b>	<b>\$28.76</b>	

Source: EMSI Complete Employment - 4th Quarter 2010

## **APPENDIX D**

Strategic Plan 2008 – 2012 Strategic Direction I and II





# Strategic Directions, Goals and Planned Outcomes

## STRATEGIC DIRECTION I:

Enhancing quality and accountability through improved organizational unit effectiveness; better program, course and classroom assessments; strengthened general education; achieving parity in student outcomes; and responding effectively to external accountability expectations.

### Strategic Goals

- The College will enhance quality, innovation and effectiveness in the delivery of academic, administrative and student support services.
- The College will establish a more student-centered culture.
- The College will identify and implement improved strategies to support course and program assessment and renewal.
- Building upon current efforts, a college-wide approach to assess student learning at the classroom level will be developed and implemented.
- The College will ensure that a viable general education experience is offered that meets the educational needs of students.
- The College will increase the academic success of students, placing particular emphasis on the success of student groups that have been underserved by higher education.
- The College will work to refine current and develop new accountability standards and effectiveness indicators that meet the expectations of external stakeholders and are supportive of a comprehensive Community College mission.

### Planned Outcomes

- Ongoing use of organizational unit assessment information to improve unit efficiency and effectiveness.
- Adoption of promising business and educational practices that are successfully used at peer institutions.
- Demonstrated improvement in classroom-based student success measures.
- Documented increase in student satisfaction with all aspects of their college experience.
- Effective use of classroom-based assessments by faculty to improve teaching methods and student learning outcomes.
- Comprehensive implementation and assessment of new general educational requirements.
- Usage of effectiveness indicators to meet external stakeholders' accountability expectations for the College.
- Improved student outcomes for all student groups, including short-term student persistence, success in gatekeeper courses and graduation levels.

## **STRATEGIC DIRECTION II:**

Ensuring effective enrollment management by improving the College's image; enhancing marketing efforts; strengthening recruitment and retention of students; and expanding program delivery services.

### **Strategic Goals**

- The College will maintain, build upon and grow the image campaign and messaging strategy that reflects the mission and supports the College's achievement of programmatic and financial success.
- The College will review, refine and implement comprehensive marketing strategies that utilize targeted approaches tied directly to the College's mission, recruitment strategies across multiple target audiences, new strategic initiatives, awareness building and image-enhancement goals.
- The College will enhance and create new systemic support structures designed to encourage student enrollment, student academic success and persistence at the College until their educational goals are achieved.
- The College will develop new and enhance existing partnership programs with the School District of Philadelphia and other Philadelphia schools, designed to promote students' subsequent enrollment and success in higher education in general, and at the College specifically.
- The College will strengthen current and create new flexible course and program delivery options.

### **Planned Outcomes**

- Improved College image among key stakeholders.
- Enhanced governmental and foundation financial support for the College.
- Growth in individual private gift-giving.
- Achievement of College-wide and program-level enrollment targets.
- Achievement of annual student persistence targets.
- Growth in degrees awarded annually.
- Annual improvements in student persistence and academic success levels.
- Redesigned academic and student support services for all credit and noncredit students.
- Demonstrated improvement in the percentage of credit and noncredit students who achieve their educational goals for enrolling at the College.
- Expanded program opportunities including short-term certificate programs, additional accelerated program options and increased distance learning opportunities.
- Increased student satisfaction with the availability of course and delivery options at the College.
- Successful partnership programs expanded in size to more closely align with scale of need, where feasible.
- Introduction of new partnership programs reflecting priority needs of region.

*Community College of Philadelphia*  
*Academic Program Audit: Fire Science Program*

*Division of Liberal Studies*

Authors: Tom Garrity  
Linda Hansell

Date: May 16, 2010

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## **I. Executive Summary**

The Fire Science Program at Community College of Philadelphia began in 1971. It resides in the Social Sciences Department of the Division of Liberal Studies. The Fire Science Program is designed to serve the needs of Philadelphia firefighters desiring to progress in expertise and rank. It also prepares high school graduates and those seeking a career change to become firefighters or to enter the growing fields of fire safety and public safety administration.

The Fire Science curriculum integrates material specific to firefighting and prevention with general education courses. To graduate with the Associate in Applied Science (A.A.S.) degree in Fire Science, a student must complete a minimum of 62 credits as prescribed and attain a minimum grade point average of 2.0 (“C” average).

There are no full-time faculty members in the Fire Science Program. All faculty members are fire service professionals who bring a wealth of experience into the classroom. There is an active Fire Science Advisory Committee, whose membership includes the Fire Commissioner of the Philadelphia Department, the Deputy Commissioner, the Deputy Chief of the Philadelphia Fire Academy, the President of the Philadelphia Firefighter’s Union, a nationally recognized fire investigator, a safety specialist, and a student.

Strengths of the program include the quality of the teaching faculty, the strength of the course content, the high level of academic achievement of students in the program, the high level of student satisfaction with the program, and cost effectiveness. In addition, the program provides very important services to the City of Philadelphia by educating firefighters and aspiring firefighters and by preparing students for leadership positions in the Fire Service and related fields such as pre-fire planning, emergency management, risk management, building inspections, fire investigation, and code enforcement. Philadelphia firefighters who earn the A.A.S. Degree in Fire Science receive a half-point addition to their final score on every promotional examination they pass.

There is a formal articulation agreement between the College’s Fire Science Program and Holy Family University’s Bachelor’s degree program in Fire Science and Public Safety Administration.

Recommendations in this audit focus on developing an enrollment management plan that works towards increasing the number of students in the program and the number of students who graduate from the program, the use of alternative instructional delivery formats, diversification of the instructors, investigating new technologies that could enhance instruction, exploring certifications that correspond with appropriate Fire Science courses, and increasing curricular and extra-curricular connections and collaborations between the Fire Science program and other programs at the College.

## **II. Program**

### **Mission of the program**

The mission of the Fire Science program is to prepare students for leadership positions in the fire service or in a related field such as code enforcement, building inspections, pre-fire planning or risk management.

### **Major goals of the program**

The goals of the Fire Science program are to provide students with an understanding of how fire departments, fire prevention codes, fire investigations and fire-prevention public education programs work together to protect the community from the ravages of fire. Students use a systematic process to analyze, plan for and manage commonly encountered fire emergencies such as structure fires, with an understanding of how hazardous materials and building construction will influence fire suppression, firefighter safety and emergency scene management.

The Student Learning Outcomes for the Fire Science Program state that upon completion of the program, graduates will be able to:

- Demonstrate skills needed for leadership in the fire service or a position in a related field such as code enforcement, pre-fire planning, building inspection, risk management or emergency planning.
- Demonstrate their understanding of fireground strategy and tactics, the occupational risks firefighters face and the health and safety management strategies available to reduce injuries.
- Articulate the requirements for fire detection and suppression systems in various types of buildings.
- Prepare a pre-fire plan for a building using computer-assisted design software to draw floor and site plans.
- Articulate their understanding of the scientific approach to fire investigation as well as the important role that fire investigation and fire prevention programs play in reducing a community's risk of fire.
- Demonstrate their understanding of building construction and hazardous materials.

### **How the Fire Science Program's Goals Support the College's Mission**

The Fire Science Program's mission to prepare students for a leadership position in the fire service or in a related field aligns well with the College's Mission to "provide a coherent foundation for college transfer, employment, and life-long learning" and to prepare students "to be informed and concerned citizens."

The College's Vision Statement also lists as an ideal having "strong and mutually beneficial partnerships with ... community organizations and governmental agencies that model effective community-based educational programs." The Fire Science Program embodies this ideal through its relationship with three key stakeholders: The

Philadelphia Fire Department, the local Sprinkler Fitters Union, and Holy Family University.

The Philadelphia Fire Department (PFD) has been a Fire Science Program stakeholder since the inception of the program and remains an important advocate and advisor today. The Philadelphia Fire Commissioner, his Deputy Commissioner of Administrative Services, the Director of the Fire Academy and the President of the International Association of Firefighters, Local #22 are all members of the Fire Science Program Advisory Committee. In addition, the PFD provides tuition reimbursement to its uniformed members for successfully completing courses required for the Fire Science degree, and Philadelphia firefighters who earn the A.A.S. Degree in Fire Science receive a half-point addition to their final score on every promotional examination they pass.

The Local Sprinkler Fitters Union, located near the Northeast Regional Center (NERC), allows the *Detection and Suppression Systems* class to use its lab. This saves the College money and space, creates a quality learning experience for the student, as well as strengthens the partnership between the College and an organization that potentially could provide employment for our students.

The renewal in June 2008 of the articulation agreement with Holy Family University that allows CCP students to transfer a maximum of 75 credits reaffirms the value of the A.A.S. Degree in Fire Science to Holy Family University.

### **History of the Program**

The Fire Science Program started in 1971 with the mission of providing a continuing education opportunity for firefighters and individuals working in a related field, as well as pre-employment education for students wishing to become firefighters. The Philadelphia Fire Department has played an integral part in the birth and development of the program. From the start of the program, all instructors have been full-time professionals in fire service or related careers who teach part-time.

Holy Family College (now a university) instituted a baccalaureate degree program in Fire Science to accommodate firefighters wishing to continue their education in fire science after graduating from Community College of Philadelphia. In 1991, the enrollments in both the Fire Science Program at CCP and the Fire Science Program at Holy Family were very low. The then-Fire Commissioner agreed to provide the following incentives/supports to keep the programs operational:

1. Limited tuition reimbursement for firefighters taking courses at Community College of Philadelphia and Holy Family College
  2. A subject matter expert/PFD liaison to evaluate the Fire Science curriculum at both colleges
- In conjunction with the evaluation, the PFD Liaison received permission from PFD to offer CCP Fire Science courses at the Philadelphia Fire Academy and at the Fire Administration Building. This change in location for the offering of Fire Science courses combined with tuition reimbursement and the refinement of a Philadelphia Fire

Department policy to allow firefighters to more easily schedule work tours to attend college classes led to increased enrollment. By the spring of 1995 there were 58 students in three class sections. Fire Science courses continue to be offered by the College at the Philadelphia Fire Academy (in addition to the Main campus and NERC).

In 1995, three new courses were added to the Fire Science curriculum to reflect new developments in the field of Fire Science:

- **FSCI 281: Fire Investigation:** This course acquaints students with the theories of fire investigation. Methodology of fire investigation and motives of arsonists are discussed, as are the formulation and testing of a hypothesis with regard to the origin and cause of a fire.
- **FSCI 291: Computer-Assisted Pre-Fire Planning:** In this course, students create, maintain and enact pre-fire plans for a variety of building occupancies and facilities. Students use Computer Assisted Design (CAD) technology, specifically a CAD program called the Fire Zone, to draw or revise a building site plan and floor plans, as well as to plot the location of important building fire protection features such as standpipe connections, sprinkler valves and smoke zones.
- **FSCI 181: Building Construction for the Fire Service:** This course provides firefighters with an understanding of building systems and building materials (including newer, light-weight materials). Understanding how a structure is constructed and how it supports its load is important to firefighters when the building is involved in fire. This course introduces students to construction terminology, methods, systems and materials.

### Description of the curriculum

The Fire Science Program is open to all interested students. To earn the Associate in Applied Science Degree in Fire Science, the student must complete 30 credits in required Fire Science courses, six credits in English composition, eight credits in Natural Science, six credits in social science, three credits in mathematics, six credits in humanities and three technological competency credits.

**FIRE SCIENCE COURSE SEQUENCE** Course Number, Name, Prereq. & Coreq. Credits  
Gen Ed Req.

#### FIRST SEMESTER

<a href="#">FSCI 104</a> – Fire Prevention and Building Codes	3 credits
<a href="#">ENGL 101</a> - English Composition I	3 credits ENGL 101
<a href="#">FSCI 111</a> – Emergency Scene Management	3 credits
<a href="#">MATH 118</a> - Intermediate Algebra or higher	<a href="#">MATH 117</a> 3 credits Mathematics
<a href="#">FSCI 142</a> – Introduction to Occupational Health and Safety for Firefighters	3 credits

#### SECOND SEMESTER

<a href="#">ENGL 102</a> - English Composition II	<a href="#">ENGL 101</a> 3 credits ENGL 102, Info Lit
<a href="#">FSCI 181</a> – Building Construction for the Fire Service	3 credits
<a href="#">CHEM 110</a> - Introductory Chemistry	4 credits Natural Science



<a href="#">FSCI 271</a> – Hazardous Materials	3 credits
<a href="#">CIS 103</a> – Applied Computer Technology	3 credits Tech Comp
<b>THIRD SEMESTER</b>	
Social Science Elective	3 credits Social Sciences
<a href="#">FSCI 172</a> – Fire Detection and Suppression Systems	3 credits
<a href="#">FSCI 221</a> – Fire Prevention and Protection	3 credits
Foreign Language (first of two semester sequence)	3 credits Humanities Am/Global Diversity
<a href="#">PHYS 105</a> – Survey of Physics	4 credits Natural Science
<b>FOURTH SEMESTER</b>	
Social Science Elective	3 credits Social Sciences
<a href="#">FSCI 281</a> – Fire Investigation	3 credits
<a href="#">FSCI 241</a> – Fire Administration	3 credits
<a href="#">FSCI 291</a> – Computer Assisted Pre-Fire Planning	3 credits
Foreign Language (second of two semester sequence)	3 credits Humanities

To qualify for the Associate in Applied Science (A.A.S.) degree in Fire Science, a student must complete a minimum of 62 credits as prescribed and attain a minimum grade point average of 2.0 (“C” average). All General Education requirements are met through required courses (as indicated above) except for the **Writing Intensive** requirement and the **Interpretive Studies** requirement. Therefore, in order to graduate, students in this program must choose one course that is designated **Writing Intensive** and one course that is designated **Interpretive Studies**. The same course may be used to fulfill both requirements. (See Appendix A for the Fire Science Program brochure.)

### **Internal program coherence**

The Fire Science curriculum is designed in a logical sequence and directs the student to enroll in specific courses each semester.

### **Revisions to the curriculum since the last audit**

In 2004, the College conducted the most recent audit of the Fire Science program. The audit found that students in the Fire Science Program performed well in both fire science and general education courses. A reported strength of the program was a knowledgeable and concerned faculty. The audit found that the core Fire Science courses offered comply with the Fire and Emergency Services Higher Education (FESHE) model curriculum and may even position Fire Science graduates “ahead of the curve” in Fire Science education. The Audit concluded with four recommendations for changes to the Fire Science curriculum:

1. The program faculty will develop a plan for using alternative delivery formats to meet the needs of current and prospective students
2. The Program Coordinator and the Department Head should meet with the appropriate representatives at Holy Family University to review the articulation agreement
3. Review and revise the Fire Science program curriculum to address the curricular issues raised in this audit, specifically the issue of directed electives

that have not run in recent semesters and have not been documented in accordance with Act 335 guidelines

4. Publish a five-year fire science course schedule

Recommendations two through four above were implemented. The first recommendation, regarding alternative delivery formats for Fire Science courses has not been implemented. The topic of an alternative format for Fire Science courses was discussed at the 2006 Fire Science Advisory Committee meeting. Differing opinions were offered and no action was taken by the faculty. To date, all Fire Science courses are offered in the traditional class room format. As it has been five years since the Advisory Committee addressed this issue, and as students continue to request on-line courses, it is recommended by this auditor that the issue of alternative delivery formats be revisited and that distance education courses or hybrid courses be developed. (See Findings and Recommendations, p. 24)

In April of 2005 a proposal for minor curriculum revisions was done that suggested four changes to the Fire Science Curriculum:

- 1) Change the directed elective choices for the required management course. Students will still have the option to select a management directed elective, but they will choose from three management courses that do NOT have a pre-requisite management course requirement. Students will select one management course from either Management 121: Introduction to Business (currently being revised); Management 261: Introduction to the Law and the Legal System; or Management 262: Business Law.
- 2) Eliminate the prerequisite of Chemistry 110 for FSCI 271: Hazardous Materials
- 3) Eliminate FSCI 111: Emergency Scene Management as a pre-requisite for FSCI 291: Computer Assisted Pre-Fire Planning
- 4) Require two semesters of a foreign language

In 2009, a course revision eliminated the Management course requirement and was replaced with the requirement to complete CIS 103: Applied Computer Technology. Course addenda/amendments for Fire Science 271: Hazardous Materials and Fire Science 291: Computer-Assisted Pre-Fire Planning were also done, and the College approved the curriculum revisions.

### **Curricular Innovations and Departmental Organizational Changes**

In 2006, the program moved from the Department of Design Technology to the Social Sciences Department. This move was done to foster collaboration and connections between the Fire Science Program and other programs at the College that educate students for positions as civil servants such as police officers, justice workers, and programs that may use overlapping technology, such as Geographic Information Systems (GIS).

## **Future Directions in the Field/Program**

There are several trends in the field of Fire Science today. The first is the alignment of the Fire Science curriculum with the Fire and Emergency Services Higher Education Conference (FESHE) model curriculum. At the FESHE conference in 2000, the National Fire Science Degree Programs Committee (NFSDPC) identified six core associate-level fire science courses and eight other non-core associate-level fire science courses for a model Fire Science associate degree curriculum. According to the U.S Fire Administration, the purpose for designing a model Fire Science curriculum is “problem-free student transfer between schools and crosswalks for those students who apply their academic course work in preparation for NFPA and EMS standards and certification.”

The College’s Fire Science Program Director attended the FESHE conference and was part of a committee that designed the model Fire Science curriculum. He reported that CCP’s curriculum aligns well and perhaps improves on the FESHE model curriculum. CCP courses are held at the National Fire Academy and the Emergency Management Institute, and in addition, several students have completed the Executive Fire Officer Program. The College’s dual admissions and articulation agreement with Holy Family University allows CCP students to transfer all of their credits to a regionally accredited Bachelor’s degree program.

The second trend is Fire Science program accreditation through the International Fire Service Accreditation Congress (IFSAC). The International Fire Service Accreditation Congress (IFSAC) is a peer driven, self-governing system that accredits both fire service certification programs and higher education fire-related degree programs. As of April 2010, IFSAC had accredited 21 associate degree programs (including the program at Montgomery County Community College) and four bachelor degree programs.

To have a program accredited by IFSAC, the college or university must apply for accreditation and, if accepted, complete an in-depth self-study of the program and institution. The Fire Science Advisory Board has discussed the pros and cons of accreditation for the College’s Fire Science program and has concluded, based on the accreditation process and the cost associated with accreditation (\$1,400 per year membership fee to belong to IFSAC, a \$500 application fee for accreditation, and an estimated cost of \$5,000 to \$7,000 for the team visit required every five years), that accreditation of the College’s program is not necessary at this time. The added value of accreditation is unclear, and it is expensive. The Advisory Board concluded that if the College did not have a policy in place to audit its own programs every five years, IFSAC accreditation might be worthwhile, but with the College’s own quinquennial audit of the Fire Science program, IFSAC accreditation would be redundant without offering additional value at this time.

There are several technologies changing the world of pre-fire planning. Pre-fire planning software allows firefighters to develop electronic pre-fire plans for structures in their city and store them on remote servers. Fire companies across the city can access the plans

(using the internet) on Mobile Data Computers that are mounted in the fire truck. Fire companies can share their pre-fire plans with other fire departments so that firefighters responding to other cities or towns can view the plan for the building while responding. This software allows first responders to integrate digital photos, satellite imagery, pictometry and GIS technology into the plan. Further research is warranted to ascertain the costs and benefits of acquiring this software for use in the Fire Science Program (See Findings and Recommendations, p. 24)

Another trend today in various industries, including fire service, is to use simulation software for training. Using sophisticated computer programs to simulate an emergency allows students to learn from their mistakes without the loss of life or property. Simulation technology would be an enhancement for FSCI 111: Emergency Scene Management. In this course, students use emergency scene management tools such as the Command Sequence to develop an action plan for hypothetical structure fires. The instructor uses digital photos with simulated smoke added to the photo to provide the scenario. With simulation technology the instructor could present a more realistic scenario that would allow a technician to increase fire and smoke condition with time and to decrease the fire and smoke to simulate extinguishment. This technology is expensive and requires extensive technical support, both to create the scenarios and to keep the program up and running during class. Further research is warranted to ascertain the costs and benefits of acquiring this software for use in the Fire Science Program. (See Findings and Recommendations, p. 24)

The Fire and Emergency Services Training Network (FETN) is a fee-based service that supplies video for fire service training. The Philadelphia Fire Department subscribed to FETN, and since most of CCP instructors are active or retired members of the Philadelphia Fire Department, they had access to this video library. FETN is now online and password protected. This service has value for several CCP courses and is a service that the college should consider. The cost is approximately \$1,300.00 per year with an additional fee of \$60.00 per year for each instructor requesting access.

Other possible future directions for the program include:

- Offering additional courses each year. (See Student Survey results, p. 19, and Findings and Recommendations, p. 24.)
- Exploring the feasibility of offering fire service certifications that correspond with appropriate Fire Science courses. (See Findings and Recommendations, p. 24.)
- Increasing curricular and extra-curricular connections and collaborations between the Fire Science program and other programs at the College. (See Findings and Recommendations, p. 24.)

### III. Faculty

#### Profile of the Faculty

All eight Fire Science faculty are part-time faculty members, including the program director. All have (or had) extensive careers in the fire service, a related field, or both. Several faculty members also teach at other colleges and universities.

**GARRITY, THOMAS J.** Fire Science Program Director and Adjunct Instructor, *FSCI 111: Emergency Scene Management*. B.A. History, LaSalle University; M.S., Public Safety Administration, St. Joseph's University; Graduate, Executive Fire Officer Program, National Fire Academy.

Tom served for 36 years with the Philadelphia Fire Department attaining every civil-service rank with assignments in both staff (Fire Investigation and Fire Prevention) and field (suppression) positions. He served 17 years as a Deputy Chief with the responsibility for fire and EMS response for one-half of the City of Philadelphia and in this capacity responded to multiple alarm fires, hazardous material incidents, mass casualty incidents, floods, explosions and collapsed buildings. He served for three years as the Chief Officer responsible for fire prevention programs and public information for the Philadelphia Fire Department.

During his third year as the Chief of the Fire Prevention Division, the City experienced the fewest number of fire deaths recorded to date. He authored articles in fire services journals and is co-author, along with epidemiologist from the National Cancer Institute, of the largest and most comprehensive retrospective cohort analysis of firefighter cancer mortality ever conducted.

He presently serves as the Deputy Director of Fire Programs for Montgomery County, PA and in this capacity is the Director of the Montgomery County Fire Academy. He serves on Fire Science Program Advisory Committees at Bucks County Community College, Montgomery County Community College and the A. Philip Randolph Skills Academy High School (School District of Philadelphia) Fire Cadet Program.

He remains the Education Coordinator of the Philadelphia Fire Department and advises the PFD on matters of tuition reimbursement. As the Deputy Director of Fire Programs for Montgomery County, he is a member of the State Fire Commissioner's Committee to explore funding opportunities for Educational Training Agencies involved in firefighter training.

**BAILEY, RICHARD A.** Instructor, *FSCI 104: Philadelphia/International Fire Code*. Chief Bailey is a Deputy Chief in the Philadelphia Fire Department serving as the Chief Fire Code Official for the Philadelphia Fire Department and Chief of the Department's Fire Code Unit, responsible for maintaining and updating the City's fire

code. He is a Certified Fire Safety Specialist, Fire Inspector II and Certified Fire Inspector in PA and NJ. Chief Bailey holds a Bachelor of Science in Fire Science from the University of Maryland.

**BATEMAN, THEODORE C.;** Instructor, *FSCI 142: Introduction to Occupational Health & Safety for Firefighters* and *FSCI 172: Fire Detection and Suppression Systems*. Mr. Bateman served as a Battalion Chief in the Philadelphia Fire Department and is the former Chief of the University of Pennsylvania's Fire and Life Safety Division. He holds an A.A.S. in Fire Science Technology from the Community College of Philadelphia, a B.A. in Fire Science and Public Safety Administration from Holy Family University and a M.S. in Public Safety Administration from St. Joseph's University. Chief Bateman is a graduate of the National Fire Academy's Executive Fire Office Program. In his 29 years serving in the Philadelphia Fire Department, he served in some of the busiest fire stations in the City as well as in the Code Unit, the Safety Office and the Fire Marshal's Office with 15 years experience as a Battalion Chief.

**HOJNICKI, EDWARD JR.** Instructor, *FSCI 281: Fire Investigation*. Chief Hojnicky is a Battalion Chief with the Wilmington Fire Department and a life member with the Minquadale Volunteer Fire Company. He served for 10 years on the Wilmington FD Arson Task Force and was the first certified fire investigator in the State of Delaware. Chief Hojnicky earned a Masters Degree in Public Safety from St. Joseph's University, a B. S. in Fire Science Management from the University of Maryland, College Park and an A.A.S. Degree in Fire Technology, Safety Management and Emergency Management from Delaware Technical Community College. He serves as a volunteer Personal Development Coach with the University of Delaware Football Team and is a State Certified Fire Instructor II for the Delaware State Fire School with over 2000 hours of advanced training.

**JAKUBOWSKI, GREG:** Instructor, *FSCI 181: Building Construction for the Fire Service*. Greg holds a B.S. in Fire Protection Engineering from the University of Maryland and an M.S. in Public Safety from St. Joseph's University. Greg is an experienced firefighter and command officer with over 32 years experience and currently serves as Chief of the Lingohocken Fire Co. in Central Bucks County, PA. He is a licensed fire protection engineer in Pennsylvania and New Jersey, a certified safety professional (CSP) and a Fellow in the Society of Fire Protection Engineers. Greg has taught fire and safety courses at several area colleges and universities, and writes a Tactics column for FireRescue magazine. He has presented at numerous national conferences and taught emergency response programs in numerous states and over 10 countries on 5 continents.

**MARCHISELLO, ROBERT.** Instructor, *FSCI 271: Hazardous Materials*. Chief Marchisello recently retired as a Deputy Chief in 2010 after 37 years service with the Philadelphia Fire Department. He served as Captain of the hazardous materials unit for nine years before being promoted to Battalion Chief. As a Battalion Chief, he served over three years in the hazardous materials administrative unit that oversees

all hazardous materials issues that impact the Philadelphia Fire Department. For over seven years, he served as a Battalion Chief in hazardous materials operations, responding citywide to all hazardous materials incidents. Promoted to Deputy Chief and assigned to cover the southern half of the city, he responded as incident commander to all major emergencies and handled administrative issues. His degrees include an Associate Degree in Fire Science from Community College of Philadelphia, a Bachelor's Degree from Temple University in Mechanical Engineering and a Master's Degree in Environmental Health, Industrial Hygiene. He also is a Pro-Board Certified Hazardous Materials Technician, has taught the Chemistry of Hazardous at the National Fire Academy and is an adjunct instructor at Bucks County Community College in the Fire Science Program.

**MCNULTY, WILLIAM J.** Instructor, *FSCI 221: Fire Prevention and Protection* and *FSCI 241: Fire Department Administration*. Commissioner McNulty is the former Deputy Commissioner of Administrative Services for the Philadelphia Fire Department and in this capacity oversaw information technology, personnel, budget & fiscal, buildings and served as senior advisor to the Fire Commissioner in all aspects of the fire service except fire ground strategy and tactics. He is currently a consultant in emergency services and municipal government issues with MFR Consultants in Philadelphia. He holds a degree in English literature from La Salle University and attended the Wharton School MGA Program for Public Administration.

**WOODARD, ROBERT .** Instructor, *FSCI 291: Computer-Assisted Pre-Fire Planning*. Mr. Woodard earned a Bachelor of Science in Civil Engineering degree from the Worcester Polytechnic Institute, Worcester, MA. He is a registered Professional Engineer (Fire Protection Engineering) in the Commonwealth of Pennsylvania, the State of New Hampshire, the Commonwealth of Virginia, the State of Delaware, the State of New Jersey and the State of New York. Mr. Woodard has over 25 years of demonstrated expertise in fire protection engineering and property loss control with premier consulting and property insurers. As a loss control account manager, he developed and monitored engineering service plans for international and national accounts. He has performed numerous risk improvement surveys and engineering reports of large properties and industrial facilities using computer assisted design technologies.

Professional development of the Fire Science faculty occurs as part of their ongoing training and experience in the fire service. Thomas J. Garrity, the Director of the program attended the 2010 International Fire Service Accreditation Congress in Oklahoma City. Theodore Bateman attends the Executive Fire Officer Symposium at the National Fire Academy each year. All support the program by making time to teach and to mentor students. The part-time director of the Fire Science program is the Director of the Montgomery County Fire Academy and notifies his faculty members of seminars and courses that are offered at the Montgomery County Fire Academy that pertain to their area of expertise. In November of 2010, several faculty

members attended the seminar on emergency scene management presented by Dr. Richard B. Gassaway at the Montgomery County Fire Academy.

#### **IV. Outcomes and Assessment**

##### **Graduates**

The number of Fire Science graduates has remained quite small. The average number of graduates over the last five years is 2. Six students will graduate from the program in May 2011.

One reason the graduation rate is low is that many students in the program are already employed as firefighters and therefore do not need a degree in order to get a job, and many of them take specific courses in order to prepare for a promotional examination within the fire department.

Number of program graduates

<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
1	1	4	3	1	6

##### **Student Profile**

The number of students enrolled in the Fire Science program has remained fairly steady over the last 10 semesters. An average of 44 students were enrolled over the last 10 semesters. The largest enrollment came in Fall 2007 at 51 students, and the smallest came in Fall 2005 and Spring 2007 at 37.

Enrollment data from the College's Institutional Research website indicates that Fire Science students are predominantly male students age 30 or over who are attending the College part-time.

Credit Headcount

	<b>Fall 2005</b>	<b>Spring 2006</b>	<b>Fall 2006</b>	<b>Spring 2007</b>	<b>Fall 2007</b>	<b>Spring 2008</b>	<b>Fall 2008</b>	<b>Spring 2009</b>	<b>Fall 2009</b>	<b>Spring 2010</b>
<b>Program</b>	<b>37</b>	<b>44</b>	<b>38</b>	<b>37</b>	<b>51</b>	<b>44</b>	<b>45</b>	<b>47</b>	<b>48</b>	<b>49</b>
College-wide	16,236	16,978	16,871	17,019	17,334	17,661	17,327	18,023	19,047	19,965

Credit FTE headcount

	<b>Fall 2005</b>	<b>Spring 2006</b>	<b>Fall 2006</b>	<b>Spring 2007</b>	<b>Fall 2007</b>	<b>Spring 2008</b>	<b>Fall 2008</b>	<b>Spring 2009</b>	<b>Fall 2009</b>	<b>Spring 2010</b>
<b>Program</b>	<b>15</b>	<b>18</b>	<b>17</b>	<b>14</b>	<b>21</b>	<b>20</b>	<b>21</b>	<b>21</b>	<b>27</b>	<b>27</b>
College-wide	11,017	11,329	11,523	11,296	11,881	11,823	11,883	12,128	13,361	13,784



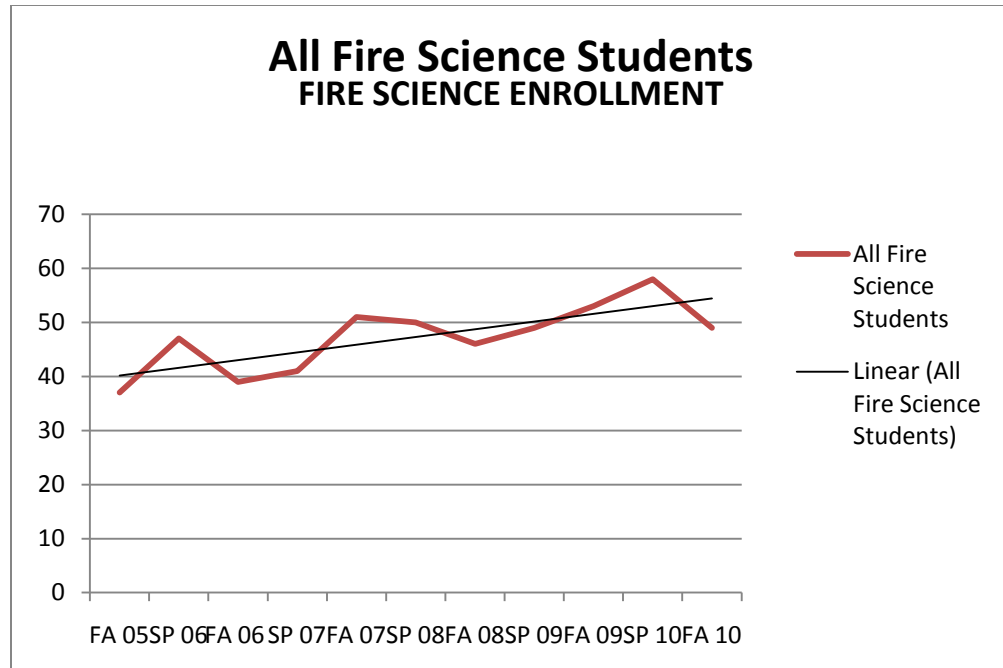


Figure 1

In the past, most students were uniformed members of the Philadelphia Fire Department, but today the Fire Science program is attracting students who are not firefighters and this sub-cohort appears to be responsible for the program's growth (Figure 2).

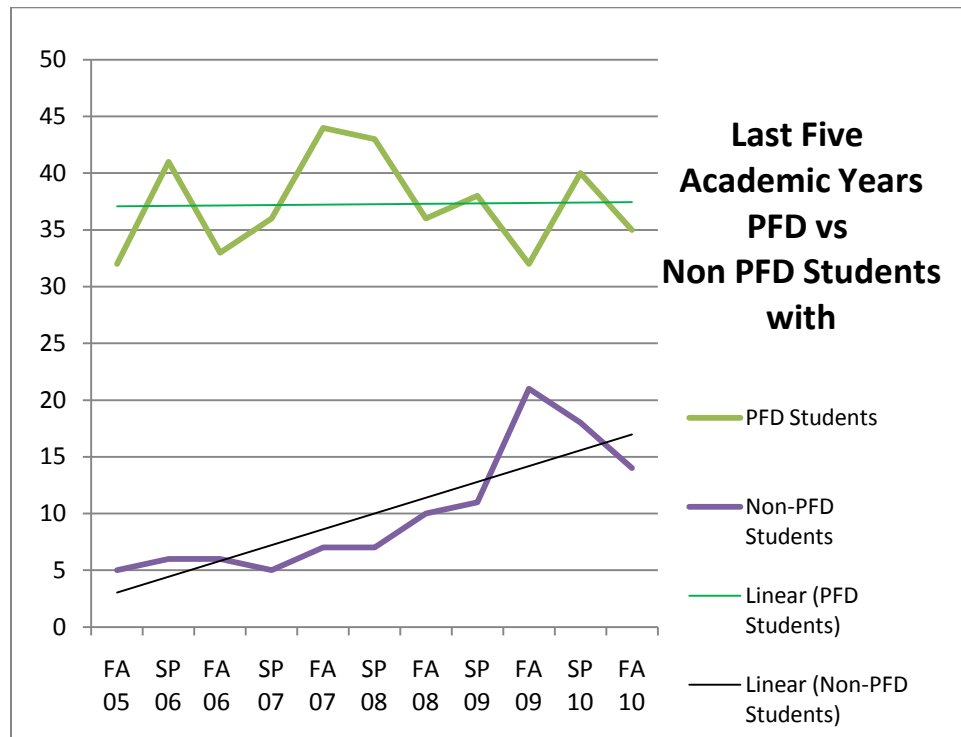


Figure 2.

The following table indicates that Fire Science students are predominantly male. The Fire Science program is enrolling over two and a half times more male students than the College as whole.

Program Enrollment by Gender as Compared to College-wide Enrollment (Percent)

Gender		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Female	<b>Program</b>	<b>9.1</b>	<b>13.2</b>	<b>16.2</b>	<b>7.8</b>	<b>9.1</b>	<b>13.3</b>	<b>12.8</b>	<b>6.3</b>	<b>6.1</b>
	College	66.5	66.5	66.8	66.6	66.4	66.3	65.8	65.3	65.3
Male	<b>Program</b>	<b>88.6</b>	<b>81.6</b>	<b>78.4</b>	<b>90.2</b>	<b>88.6</b>	<b>84.4</b>	<b>85.1</b>	<b>91.7</b>	<b>91.8</b>
	College	32.2	32.3	32.1	32.3	32.7	32.9	33.1	33.8	33.9
Unknown	<b>Program</b>	<b>2.3</b>	<b>5.3</b>	<b>5.4</b>	<b>2.0</b>	<b>2.3</b>	<b>2.2</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>
	College	1.2	1.2	1.1	1.1	.9	.9	1.1	.9	.8

The following tables indicate that White students represent the largest racial/ethnic group in the Fire Science program, followed by Black students. Compared to the College as a whole, the Fire Science program is enrolling nearly twice the number of White students.

Program Enrollment by Racial/Ethnic Background

Race	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Amer Indian or Alaskan Native	0	0	0	0	0	0	0	0	0
Asian	0	1	1	0	0	0	0	0	0
Black, Non-Hispanic	15	10	12	13	10	8	12	15	12
Hispanic	4	5	5	8	7	8	6	3	4
Other	0	0	0	0	1	0	0	2	2
Unknown	3	3	2	4	4	2	3	6	7
White, Non-Hispanic	22	19	17	26	22	27	26	22	24

Program Enrollment by Racial/Ethnic Background as Compared to College-Wide Distribution  
(percent)

Race		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Amer Indian or Alaskan Native	<b>Program</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	College	.5	.6	.5	.4	.5	.4	.4	.4	.4	.3
Asian	<b>Program</b>	<b>0.0</b>	<b>0.0</b>	<b>2.6</b>	<b>2.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	College	7.4	7.3	7.7	8.1	8.2	7.8	7.2	7.0	6.8	6.7
Black, Non- Hispanic	<b>Program</b>	<b>35.1</b>	<b>34.1</b>	<b>26.3</b>	<b>32.4</b>	<b>25.5</b>	<b>22.7</b>	<b>17.8</b>	<b>25.5</b>	<b>31.3</b>	<b>24.5</b>
	College	46.7	47.8	46.9	47.4	46.8	47.6	46.4	46.9	46.8	47.6
Hispanic	<b>Program</b>	<b>8.1</b>	<b>9.1</b>	<b>13.2</b>	<b>13.5</b>	<b>15.7</b>	<b>15.9</b>	<b>17.8</b>	<b>12.8</b>	<b>6.3</b>	<b>8.2</b>
	College	5.9	5.8	6.1	6.2	6.5	6.4	7.0	6.6	6.9	7.2
Other	<b>Program</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.3</b>	<b>0.0</b>	<b>0.0</b>	<b>4.2</b>	<b>4.1</b>
	College	5.0	4.8	4.6	4.6	4.2	4.4	4.1	3.9	4.2	4.4
Unknown	<b>Program</b>	<b>5.4</b>	<b>6.8</b>	<b>7.9</b>	<b>5.4</b>	<b>7.8</b>	<b>9.1</b>	<b>4.4</b>	<b>6.4</b>	<b>12.5</b>	<b>14.3</b>
	College	6.1	6.5	6.8	6.9	7.8	7.9	9.0	9.9	9.9	9.7
White, Non- Hispanic	<b>Program</b>	<b>51.4</b>	<b>50.0</b>	<b>50.0</b>	<b>45.9</b>	<b>51.0</b>	<b>50.0</b>	<b>60.0</b>	<b>55.3</b>	<b>45.8</b>	<b>49.0</b>
	College	28.4	27.3	27.4	26.3	26	25.4	25.9	25.3	25.1	24.1

The table below indicates that the majority of students are age 30 or over. When compared to the College as a whole, the Fire Science program is enrolling up to 30% more students 30 and older than the College as a whole in some semesters. However, there is a definite trend in which the program is enrolling a higher percentage of younger students. The percentage of students age 16-21 and age 22-29 has more than doubled from Fall 2005 to Spring 2010, while the percentage of students age 30 or over has decreased from a high of 91.8% in Spring of 2007 to 49% in Spring 2010. This change is consistent with the program enrolling more students who are not currently employed as firefighters, but who are interested in pursuing a career in Fire Science.

Enrollment by Age as Compared to College-wide Enrollment (Percent)

Years		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
16-21	<b>Program</b>	<b>5.4</b>	<b>4.5</b>	<b>0.0</b>	<b>0.0</b>	<b>9.8</b>	<b>6.8</b>	<b>17.8</b>	<b>12.8</b>	<b>25.0</b>	<b>12.2</b>
	College	33.8	28.3	35.8	30.0	36.9	30.7	36.6	29.7	35.5	26.9
22-29	<b>Program</b>	<b>16.2</b>	<b>11.4</b>	<b>21.1</b>	<b>5.4</b>	<b>7.8</b>	<b>18.2</b>	<b>17.8</b>	<b>19.1</b>	<b>20.8</b>	<b>36.7</b>
	College	30.2	33.6	30.0	34.2	30.3	35.1	30.7	36.1	33.0	37.3
30-39	<b>Program</b>	<b>37.8</b>	<b>43.2</b>	<b>42.1</b>	<b>48.6</b>	<b>41.2</b>	<b>29.5</b>	<b>28.9</b>	<b>27.7</b>	<b>25.0</b>	<b>20.4</b>
	College	17.2	18.1	16.2	17.4	15.9	16.8	15.9	17.4	16.2	17.8
40+	<b>Program</b>	<b>40.5</b>	<b>36.4</b>	<b>34.2</b>	<b>43.2</b>	<b>39.2</b>	<b>43.2</b>	<b>35.6</b>	<b>38.3</b>	<b>27.1</b>	<b>28.6</b>
	College	14.6	15.6	14.2	14.9	13.8	14.6	14.3	14.6	13.7	14.0
Unknown	<b>Program</b>	<b>0.0</b>	<b>4.5</b>	<b>2.6</b>	<b>2.7</b>	<b>2.0</b>	<b>2.3</b>	<b>0.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>
	College	4.1	4.4	3.8	3.6	3.1	2.8	2.5	2.2	1.6	1.3

The majority (an average of 90.2%) of Fire Science students are attending the College part-time. On average, the Fire Science program is enrolling 21.9% more part-time students than the College as a whole.

Program Full-time/Part-Time Enrollments as Compared to College-wide Enrollments (Percent)

		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
FT	<b>Program</b>	<b>8.1</b>	<b>4.5</b>	<b>2.6</b>	<b>2.7</b>	<b>7.8</b>	<b>4.5</b>	<b>13.3</b>	<b>10.6</b>	<b>25.0</b>	<b>18.4</b>
	College	31.8	30.0	33.3	29.0	32.8	29.2	32.7	30.0	35.3	32.2
PT	<b>Program</b>	<b>91.9</b>	<b>95.5</b>	<b>97.4</b>	<b>97.3</b>	<b>92.2</b>	<b>95.5</b>	<b>86.7</b>	<b>89.4</b>	<b>75.0</b>	<b>81.6</b>
	College	68.2	70.0	66.7	71.0	67.2	70.8	67.3	70.0	64.7	67.8

### Retention Data

Most Fire Science students enrolled in the Fall semester return to the same program the subsequent Spring semesters. On average over the last five years, Fire Science students are more likely to return to the same program than students of the College as a whole.

Students who returned to the Same Program or a different program in the subsequent Spring Semester (Percentage)

		Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
Returned Same Program	<b>Program</b>	<b>75.7</b>	<b>68.4</b>	<b>58.8</b>	<b>75.6</b>	<b>75.0</b>
	College	65.6	64.3	64.2	64.6	68.4
Returned Different Program	<b>Program</b>	<b>2.7</b>	<b>2.6</b>	<b>0.0</b>	<b>0.0</b>	<b>2.1</b>
	College	3.6	4.1	5.2	5.1	4
Graduated Fall	<b>Program</b>	<b>5.4</b>	<b>0.0</b>	<b>0.0</b>	<b>2.2</b>	<b>0.0</b>
	College	1.9	1.7	2.1	1.8	1.9
Did not return Spring	<b>Program</b>	<b>16.2</b>	<b>28.9</b>	<b>41.2</b>	<b>22.2</b>	<b>22.9</b>
	College	28.9	29.9	28.6	28.5	25.6

Since the Fall of 2006, students in the Fire Science Program are much more likely to return to the same program in the following Fall than students of the College as a whole.

Students who returned to the Same Program or a different program in the subsequent Fall Semester (Percentage)

		Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
Returned Same Program	<b>Program</b>	<b>37.8</b>	<b>63.2</b>	<b>47.1</b>	<b>51.1</b>	<b>56.9</b>
	College	36.0	36.0	35.0	37.1	38.5
Returned Different Program	<b>Program</b>	<b>8.1</b>	<b>5.3</b>	<b>0.0</b>	<b>0.0</b>	<b>2.0</b>
	College	7.2	7.5	8.2	8.5	7.6
Graduated	<b>Program</b>	<b>8.1</b>	<b>5.3</b>	<b>5.9</b>	<b>4.4</b>	<b>2.0</b>
	College	7.7	8.1	8.1	8.3	8.0
Did not return Fall	<b>Program</b>	<b>45.9</b>	<b>26.3</b>	<b>47.1</b>	<b>44.4</b>	<b>39.2</b>
	College	49.1	48.3	48.8	46.1	45.8

## Academic Performance

Fire Science students are academically successful, as evidenced by course completion, GPA, academic standing, and success at departure. The average GPA of Fire Science students over the last nine semesters is 3.22, which is well above the College's average of 2.62. This semester (Spring 2011) the grade point average for all Fire Science students (who have a GPA of > 0.00) is 3.16. The average GPA for this cohort has been over 3.0 for at least the last five academic years, with students doing slightly better in their Fire Science courses as compared to their General Education courses. Over 90% of students are in good academic standing every semester since Fall 2007. In addition, most students experience either long-term success or short-term success at departure from the College.

### Course Completion and Average GPA

		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
% of college-level credits attempted/completed	<b>Program</b>	<b>91.5</b>	<b>92.9</b>	<b>97.1</b>	<b>95.7</b>	<b>96.8</b>	<b>90.9</b>	<b>99.3</b>	<b>95.1</b>	<b>96.4</b>
	College	88.9	88.7	87.1	88.5	87.6	89.4	88.2	87.1	86.7
Average GPA	<b>Program</b>	<b>2.97</b>	<b>3.13</b>	<b>3.55</b>	<b>3.3</b>	<b>3.15</b>	<b>2.97</b>	<b>3.34</b>	<b>3.11</b>	<b>3.46</b>
	College	2.64	2.62	2.59	2.64	2.61	2.67	2.65	2.60	2.59

### Academic Standing (percent)

		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010
Good Standing	<b>Program</b>	<b>94.6</b>	<b>97.7</b>	<b>92.1</b>	<b>100.0</b>	<b>92.2</b>	<b>95.5</b>	<b>95.6</b>	<b>91.5</b>	<b>91.7</b>	<b>91.8</b>
	College	90.8	88.1	88.8	86.2	83.8	82.2	85	83.0	85.6	83.2
Dropped insufficient progress/poor scholarship	<b>Program</b>	<b>0.0</b>	<b>2.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
	College	2.6	3.8	3.0	4.3	3.4	5.5	3.7	5.7	1.2	1.7
Probation - FT/PT/Prov.	<b>Program</b>	<b>5.4</b>	<b>0.0</b>	<b>7.9</b>	<b>0.0</b>	<b>7.9</b>	<b>4.6</b>	<b>4.4</b>	<b>8.5</b>	<b>8.3</b>	<b>8.1</b>
	College	6.5	8.2	8.1	9.5	12.7	12.2	11.2	11.5	13.3	15.1

### Success at departure (percent)

Status		Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008
Graduated	<b>Program</b>	<b>20.0</b>	<b>7.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>13.3</b>
	College	5.8	12.1	5.2	13.9	6.5	14.0
Long term success	<b>Program</b>	<b>0.0</b>	<b>38.5</b>	<b>40.0</b>	<b>80.0</b>	<b>57.1</b>	<b>46.7</b>
	College	38.3	38.4	35.5	35.3	33.6	35.6
Short term success	<b>Program</b>	<b>80.0</b>	<b>15.4</b>	<b>20.0</b>	<b>0.0</b>	<b>28.6</b>	<b>26.7</b>
	College	17.4	16.9	18.1	16.4	19.0	17.1
Unsuccessful	<b>Program</b>	<b>0.0</b>	<b>38.5</b>	<b>40.0</b>	<b>20.0</b>	<b>14.3</b>	<b>13.3</b>
	College	38.4	32.6	41.1	34.4	40.9	33.4

- Long term success is defined as departure with a GPA of 2.0 or greater and 12 or more cumulative hours earned

- Short Term success is defined as departure with GPA of 2.0 or greater with 11 or fewer cumulative hours earned.
- Unsuccessful is defined as all departing students not otherwise classified including students who never completed a college-level course

## **Student Survey results**

### Summary of Student Survey Results

Surveys were emailed/mailed to 49 current students, 39 graduates (since 1975), and 124 former students of the Fire Science program. Responses were received from 22 current students (45% response rate), 11 graduates (28% response rate), and 9 former students (7% response rate.) The complete survey results are shown in Appendix C.

A clear majority of the current students, former students, and program graduates who responded to the survey are/were satisfied with the program. Of the current students (22) who responded to the surveys, 95% said they are satisfied with the instruction they are receiving. In addition, 100% of former students (9) and program graduates (11) said they were satisfied with the instruction they received. Similarly, over 90% of current students and program graduates students are/were satisfied by the support they are/were receiving from program faculty. The majority of former students (66.7%) were satisfied with the support they received from program faculty when they were enrolled in the Fire Science program. Many students mentioned the faculty's willingness to help students in and out of the classroom.

In response to the question, "Do you feel that you are accomplishing/have accomplished the educational objectives you set for yourself at Community College of Philadelphia", 100% of program graduates said they fully accomplished the education objectives they set for themselves at CCP. Current students said they either fully (77.3%) or partly (22.7%) accomplished the educational objectives they set for themselves at CCP.

Current students and program graduates were asked how well the Fire Science program is preparing or has prepared them for transfer. Of the current students who responded, 19 out of 22 students (86.4%) said that preparation is either excellent or good. Of the program graduates, all 11 respondents (100%) said that the preparation was either excellent or good. Current students were also asked how well the Fire Science program prepares them for obtaining a job in their desired field. Of the respondents, 13 students (65%) said that the preparation is excellent, 5 students (25%) said the preparation is good, and 2 students (10%) felt that the preparation is fair.

When asked what the strengths were of the Fire Science program, the most frequent responses were related to the quality of instructors. Sample comments from the surveys are listed below.

- The fire science instructors care about the students and are very knowledgeable of the field.

- Instructors have good experience in the field and are well respected in the industry. Everything taught in core classes is pertinent to my job and enhances my knowledge as firefighter.
- The instructors are professionals in their fields of study and share their years of experience which makes the classes more interesting.
- Great knowledgeable instructors with excellent lesson plans
- Fire professionals teaching courses. All aspects of profession are being covered.

Other strengths of the program cited by survey respondents were (the number following a comment denotes how many respondents referred to this particular strength):

- Applicability of classes to the real world (6)
- Great classes/great curriculum (6)

In response to the question “What do you feel needs to be changed or added to the Fire Science program in order to improve the program,” students made the following comments:

- Marry certification with some of your entry level firefighting courses. Codes class could equal Fire Inspector I, Detection and Suppression could equal Fire Fighter I, etc.
- More online courses (6)
- Add more daytime classes (4)
- Offer more courses (7)
- Make sure that all courses are rigorous and fair
- Get affiliated with (ASSE) American Society of Safety Engineers
- How about a semester dedicated to officer development?
- Leadership program/s

Graduates of the program responded to the question “What courses or topic could have been added to the Fire Science curriculum that would have been more useful to you in performing your current job?” with the following suggestions:

- Fire Management
- Computer classes (2)
- More science
- A course that would discuss real life experiences in the fire service and how they are resolved
- Possibly a human resources course along the lines of discipline could be provided for future department supervisors
- Project management

## V. Resources

### A. Facilities and Equipment

The College library provides access to a number of on-line fire service journals that students can use for research projects, including Fire Engineering, Fire Chief, Fire Management, Fire Management Notes, and Fire Safety Engineering. In addition, there are currently two print journals available: Fire News and Fire Journal.

Several of the Fire Science classes are offered at the Philadelphia Fire Department's Fire Academy. The Fire Academy's classrooms are supported with a digital projector and wireless internet connections.

As mentioned in the "Future Directions for the Program/Field" section above (p. 8), new technologies are available that could potentially enhance the curricular content of Fire Science courses, and further research is warranted to ascertain the costs and benefits of acquiring technological resources such as the Fire and Emergency Services Training Network (FETN) video service, simulation software, and pre-fire planning software. (See Findings and Recommendations, p. 24)

## VI. Demand and Need for the program

Enrollment in the Fire Science Program has increased in size by approximately 32% since 2005, and has remained steady for the last few semesters. In Spring 2010, there were 49 students enrolled in the program. The average number of students in the program over the last ten semesters is 44.

### Credit Headcount

	<b>Fall 2005</b>	<b>Spring 2006</b>	<b>Fall 2006</b>	<b>Spring 2007</b>	<b>Fall 2007</b>	<b>Spring 2008</b>	<b>Fall 2008</b>	<b>Spring 2009</b>	<b>Fall 2009</b>	<b>Spring 2010</b>
<b>Program</b>	<b>37</b>	<b>44</b>	<b>38</b>	<b>37</b>	<b>51</b>	<b>44</b>	<b>45</b>	<b>47</b>	<b>48</b>	<b>49</b>
College-wide	16,236	16,978	16,871	17,019	17,334	17,661	17,327	18,023	19,047	19,965

Firefighters perform many valuable services to society in fire safety and prevention, fire suppression, emergency management, emergency medical response, and fire and building code inspection. Firefighters protect the public against dangers of fires and other emergencies. They are often the first emergency personnel at the scene of a medical emergency. Fire inspectors visit and inspect business and other places of assembly to ensure that these places meet State and local fire codes. Fire investigators determine the cause of fires by collecting evidence, interviewing witnesses, and preparing reports on fires in cases in which the cause may be arson or criminal negligence.



According to the Occupational Outlook Handbook published by the United States Department of Labor’s Bureau of Labor Statistics, “Employment of firefighters is expected to grow by 19 percent over the 2008–18 decade, which is faster than the average for all occupations. For fire inspectors and investigators, employment is “expected to grow as fast as the average for all occupations. As cities and other areas grow, there are more buildings to inspect and fires to investigate. Employment of fire inspectors and investigators should grow along with the population.” Competition for jobs related to fire science is high because these jobs are highly attractive and sought after. The completion of community college courses or an associate’s degree in fire science may improve an applicant’s chances for a job.<sup>1</sup>

Firefighters currently employed by a Fire Service can improve their chances at promotion to ranks of captain and lieutenant by completing courses in Fire Science. Community College of Philadelphia offers the only 2-year Fire Science program in the city of Philadelphia.

In Pennsylvania, in the years between 2004 and 2014, employment of firefighting workers is expected to grow from 6,400 to 7,210. These numbers exclude volunteer fire fighters, and often times, volunteer positions turn into paid positions.<sup>2</sup> However, these statistics need to be considered in light of the current city and state budget reductions which affect the hiring of new firefighters.

## VII. Operating Costs and Efficiency

The Fire Science Program has the lowest cost per credit hour of any program at the College. This is due to the fact that all faculty members teach part-time.

### Credit Hours Produced and Cost per Credit Hour

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
<b>Program Courses</b>					
Credit hours produced	252	255	294	237	291
Cost per credit hour	\$76.18	\$71.42	\$67.57	\$69.78	\$55.81
<b>College-Wide Average</b>					
Credit hours produced	339,439	338,545	348,808	348,969	388,581
Cost per credit hour	\$129.79	\$137.13	\$144.42	\$144.65	\$138.33

### Annual Total Program Costs Per FTE

	2005-2006	2006-007	2007-2008	2008-2009	2009-2010
<b>Program</b>	\$5,808.60	\$5,378.48	\$5,569.13	\$6,533.45	\$6,308.57
College-wide Average	\$6,666.82	\$7,019.64	\$7,486.11	\$7,343.31	\$7,190.51

Source: Office of Finance and Planning: Table 30

<sup>1</sup> <http://www.bls.gov/oco/ocos328.htm>

<sup>2</sup> <http://www.paworkstats.state.pa.us/paooh/6-firefighter.pdf>

FTE's, Total Operating, Average Direct and Indirect Costs

	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
<b># FTE generated by the program</b>	<b>18.3</b>	<b>18.4</b>	<b>23.2</b>	<b>22.3</b>	<b>30.7</b>
<b>Direct Cost per FTE</b>	<b>\$2,319.56</b>	<b>\$1,717.94</b>	<b>\$2,558.66</b>	<b>\$2,743.11</b>	<b>\$2,517.57</b>
Average College-wide program direct cost per FTE	\$3,051.99	\$3,309.45	\$3,494.96	\$3,552.83	\$3,790.34
<b>Program Cost per FTE</b>	<b>\$5,808.60</b>	<b>\$5,378.48</b>	<b>\$5,569.13</b>	<b>\$6,533.45</b>	<b>\$6,308.57</b>
Average College-wide total program cost per FTE	\$6,666.82	\$7,019.64	\$7,486.11	\$7,343.31	\$7,190.51

\* Direct Costs include all expenses associated with the instructional cost centers, including the allocation of fringe benefits.

### VIII. Findings and Recommendations

The Fire Science program is an asset to the College and the community in many ways. It has a robust, well-planned curriculum. Courses are taught by individuals who work in, and are highly experienced in, the fire service. Student response to the program is extremely favorable, with students commenting frequently on the excellent quality of instruction in the program. Student academic performance in the program is very high, with greater-than-College-averages in GPA, percentage of courses completed, Fall-to-Fall persistence, and percentage of students in good standing. The program also provides a vitally important service to the city of Philadelphia in providing education and training to its firefighters and aspiring firefighters in all areas of fire control, safety, inspection, emergency scene management, hazardous materials, building construction, fire prevention and building codes, fire investigation, and pre-fire planning.

Although a high quality program with a steady number of students enrolled, the program has a very small number of graduates each year. The recommendations in this audit, therefore, focus on ways to build on the program's strengths and explore ways to increase the number of students in the program and the graduation rate, as well as add more technology.

It is recommended that the program continue, with the following measures taken:

1. Refine the enrollment management plan to work towards increasing the number of students in the program and the number who graduate from the program. This plan should include exploration of:
  - offering all ten required Fire Science courses within a two-year period
  - adding additional courses
  - adding more daytime courses

Timeframe: December 2011

2. Introduce alternative modes of instructional delivery into the program, particularly hybrid courses.

Timeframe: September 2012

3. Seek to diversify the instructors in terms of race/ethnicity and gender.

Timeframe: September 2012

4. Investigate benefits and costs of new technologies that could enhance instruction for adoption in the program:

- Fire and Emergency Services Training Network (FETN) video library
- Simulation software for FSCI 111: Emergency Scene Management
- Cloud computing and pre-fire planning software that allows first responders to integrate digital photos, satellite imagery, pictometry and GIS technology

Timeframe: December 2011

5. Explore offering certifications that correspond with appropriate Fire Science courses.

Timeframe: May 2012

6. Define strategies to help reach potential students who may not want to be firefighters but are interested in other fields covered by the program (public safety administration/emergency management, hazardous materials, occupational health and safety, pre-fire planning, risk management, building inspection, fire investigation, and code enforcement.)

Timeframe: May 2012

7. Consider changing/expanding the name of the program to include the other fields covered by the program.

Timeframe: December 2011

8. Explore affiliation with the American Society of Safety Engineers

Timeframe: December 2011

9. Increase curricular and extra-curricular connections and collaborations between the Fire Science program and other programs at the College where there are natural linkages such as Geographic Information Systems, Justice, Architecture, Engineering Science, Facilities Management, and Chemical Technology.

Timeframe: December 2011

10. Assess the effectiveness of the program and courses by developing and implementing a learning assessment plan.

a. Develop assessment plan

Timeframe: August 2011

b. Conduct assessments

Timeframe: In accordance with the College's five-year assessment cycle

## Appendix A: Fire Science Brochure

# Community College of Philadelphia

## Fire Science

### *A Career That Saves Lives*

Are you interested in starting a career in the fire service or a career in a related field? Are you a member of the Philadelphia Fire Department interested in a promotion? The Fire Science program at Community College of Philadelphia is designed specifically for people interested in a leadership position in the fire service or in a related field.

*"The degree in Fire Science prepared me for a leadership position in the Philadelphia Fire Department."*

—Deputy Commissioner Ernest Hargett, Philadelphia Fire Department

As a result of rapidly advancing technology and evolving standards and guidelines, a degree is often necessary for career advancement. The Philadelphia Fire Department recognizes the importance of the associate's degree in Fire Science by awarding a bonus of a half point on all promotional examinations to any firefighter or fire officer who earns this degree. The half point can move a promotional candidate ahead five or more positions on a promotional list.

The Fire Science program provides graduates with:

- improved communication and critical thinking skills
- the ability to use computer-assisted design software
- an understanding of the responsibilities of a fire officer
- an excellent foundation for transfer to a four-year college or university

#### **Career Paths**

Graduates of this program often achieve a supervisory position within the Philadelphia

Fire Department or in related fields, such as:

- risk management
- property management
- fire protection equipment testing
- fire investigation
- pre-emergency planning

*"The course in Emergency Scene Management provided me with the knowledge and confidence to impress the promotional board with my knowledge of fireground strategy and tactics."*

—Capt. Kevin Ewing, Philadelphia Fire Department

#### **The Fire Science Program**

All of the Fire Science instructors are fire service or fire safety professionals with extensive real-world experience.



## Fire Science at Community College of Philadelphia

The program is open to full-time as well as part-time students. Fire Science courses are offered in the evenings, at the Main Campus and at the Philadelphia Fire Academy, located at 5200 Pennypack Street, in North-east Philadelphia. Many general education and elective courses may be taken online, which reduces your time spent on campus.

### Salaries

Fire fighters — \$18.43/hr\*

\* Median hourly earnings in May 2004, courtesy of Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2006-07 Edition*

*"The transition was seamless. After earning my A.A.S. in Fire Science from the College, I transferred 74 credits to Holy Family University, where I earned my Bachelor of Arts degree in Fire Science and Public Safety Administration."*

—Lt. John Narkin, Philadelphia Fire Department

Graduates of this program have the opportunity to transfer up to 75 credits to Holy Family University, where they may earn a bachelor's degree in Fire Science and Public Safety Administration. This undergraduate degree earns a member of the Philadelphia Fire department a full point bonus on all promotional examinations.

### Program Courses

The following courses are required for the Fire Science degree:

### College Information

Visit the College Website at [www.ccp.edu](http://www.ccp.edu) to find out about:

#### Academic Programs

[www.ccp.edu/site/academic/](http://www.ccp.edu/site/academic/)

#### Admissions Process

[www.ccp.edu/site/prospective/admissions\\_process.php](http://www.ccp.edu/site/prospective/admissions_process.php)

#### Transfer Agreements

[www.ccp.edu/site/prospective/transfer\\_agreements/](http://www.ccp.edu/site/prospective/transfer_agreements/)

#### Financial Aid

[www.ccp.edu/site/prospective/financial\\_aid/](http://www.ccp.edu/site/prospective/financial_aid/)

#### Scholarships and Awards

[www.ccp.edu/site/current/scholarships/](http://www.ccp.edu/site/current/scholarships/)

#### College Life

[www.ccp.edu/site/current/student\\_life/](http://www.ccp.edu/site/current/student_life/)

#### Directions to the College

[www.ccp.edu/site/locations/main.php](http://www.ccp.edu/site/locations/main.php)

FSCI 104 - Fire Prevention and Building Codes

FSCI 111 - Emergency Scene Management

FSCI 142 - Introduction to Occupational Health and Safety for Firefighters

FSCI 181 - Building Construction for Firefighters

FSCI 271 - Hazardous Materials

FSCI 172 - Fire Detection and Suppression Systems

FSCI 221 - Fire Prevention and Protection

FSCI 281 - Fire Investigation

FSCI 241 - Fire Department Administration

FSCI 291 - Computer Assisted Prefire Planning

### Affirmative Action Statement

Community College of Philadelphia is committed to the principles of equal employment and equal educational opportunity for all persons without regard to race, color, ancestry, creed, national or ethnic origin, age, sexual orientation/preference, religion, sex, disability or status as a disabled veteran or veteran of the Vietnam Era, in the administration of its educational programs, activities, or employment in accordance with applicable Federal statutes and regulations. Any questions regarding this statement should be directed to the Director, Office of Diversity and Equity located in room M2-36; telephone number 215-751-8039.

**Appendix B: FIRE SCIENCE ADVISORY COMMITTEE  
2010-2011**

Lloyd Ayers, Fire Commissioner  
Fire Administration Building  
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## Appendix C: Student Survey Results: Current Students

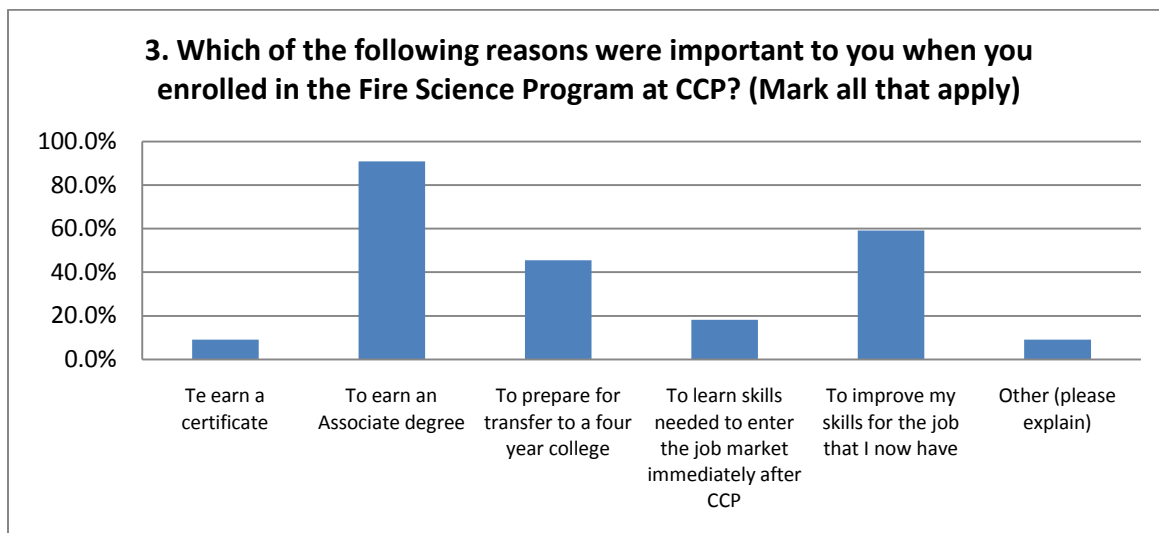
### Survey Results – Current Students

N = 22

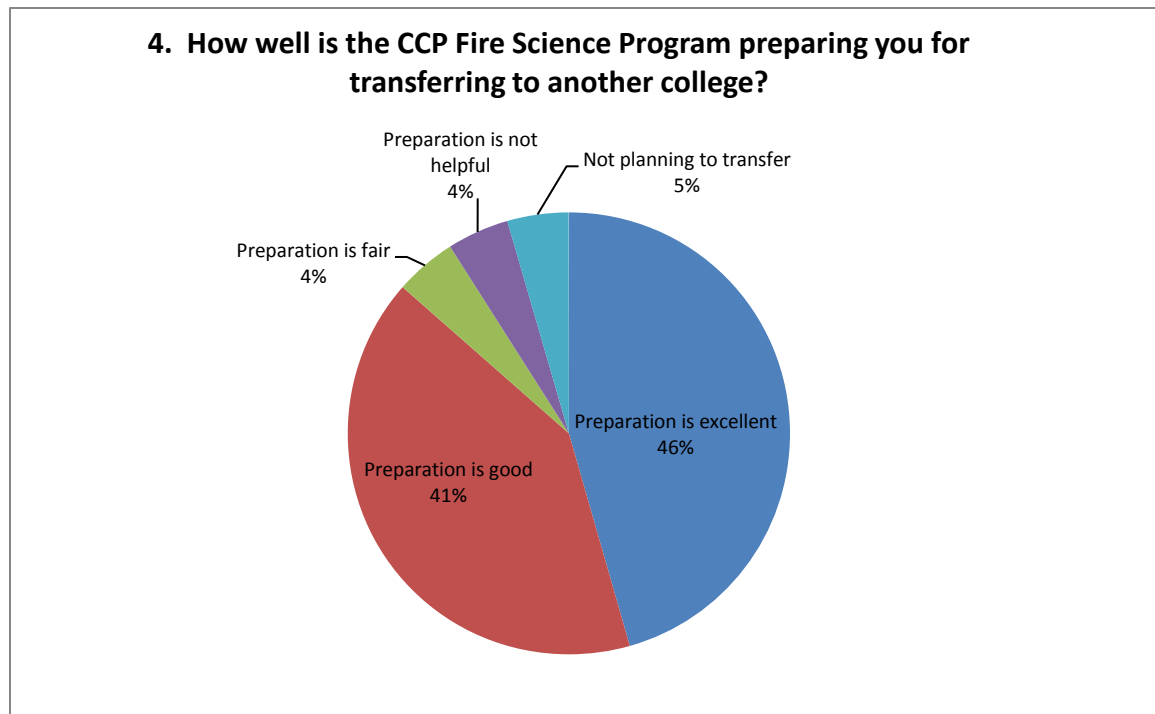
1. When did you enter the Fire Science Program?											
Spring 2005	Fall 2005	Spring 2006	Summer 2006	Spring 2007	Fall 2007	2007	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010
1	3	1	1	1	1	1	1	1	2	1	2

2. Are you currently attending CCP full-time or part-time?		
Answer Options	Response Percent	Response Count
Full-time	10.0%	2
Part-time	90.0%	18

3. Which of the following reasons were important to you when you enrolled in the Fire Science Program at CCP? (Mark all that apply)		
Answer Options	Response Percent	Response Count
Te earn a certificate	9.1%	2
To earn an Associate degree	90.9%	20
To prepare for transfer to a four year college	45.5%	10
To learn skills needed to enter the job market immediately after CCP	18.2%	4
To improve my skills for the job that I now have	59.1%	13
Other (please explain)	9.1%	2
Number	Other (please explain)	
1	enable a transfer to Holy Family University	
2	Being an officer in the Philadelphia Fire Department and obtaining a degree looks great on a resume.	

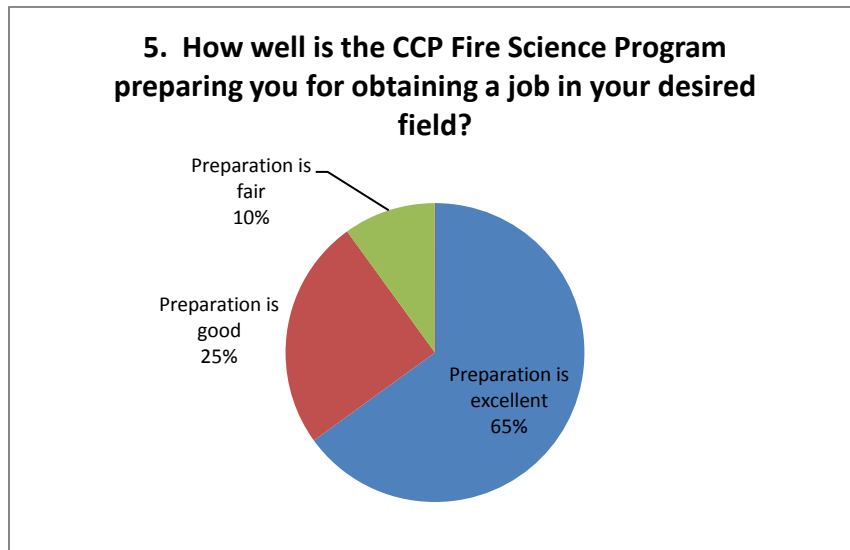


4. How well is the CCP Fire Science Program preparing you for transferring to another college?		
Answer Options	Response Percent	Response Count
Preparation is excellent	45.5%	10
Preparation is good	40.9%	9
Preparation is fair	4.5%	1
Preparation is not helpful	4.5%	1
Not planning to transfer	4.5%	1
Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.		7
Number	Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.	
1	The core credits are a must to appreciate an understanding of the fire service and its' mission. The general credits enable me to gain writing, science and mathematical skills which I'll need all through my studies.	
2	So far Good, no complaints	
3	I have not actively looked into the transfer process.	
4	Fire Science courses are excellent. I have personally applied what I have learned from these classes into my training and fire ground decisions.	
5	Some of the courses don't really cover the topic fully. Some of the classes could be dropped.	
6	Everyone involved has been very helpful explaining what has to be done and what to expect at holy family	
7	I had never really thought that far. The classes and instructors at CCP has changed my thinking and is making it a possibility.	





5. How well is the CCP Fire Science Program preparing you for obtaining a job in your desired field?		
Answer Options	Response Percent	Response Count
Preparation is excellent	65.0%	13
Preparation is good	25.0%	5
Preparation is fair	10.0%	2
Preparation is not helpful	0.0%	0
Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.		7
Number	Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.	
1	Even though I was already employed in the field I believe that this program is beneficial in preparation for entrance exams and interviews. The experience will go a long way in proving dedication to the field.	
2	Its already been a good help in the field that im currently in, PFD	
3	Most instructors are retired PFD and they can apply what they are teaching, directly into our world as Philadelphia firefighters.	
4	I'm already a fireman but it is helping me get ready for promotional exams	
5	Having an associate degree will enhance my marketability in the field of public safety.	
6	Already a member of the Philadelphia Fire Department, but I feel it is an excellent in preparing me for promotion.	
7	Helps to gain more understanding of my job and prepare me within my department as well as job opportunities outside the department	



6. Do you think you are accomplishing the educational objectives that you set for yourself at Community College of Philadelphia?		
Answer Options	Response Percent	Response Count
Yes, fully	77.3%	17
Yes, partly	22.7%	5
No	0.0%	0
Please comment		5
Number	Please comment	
1	So far its been good	
2	Not enough time to time to go to school, work and have a small in ion between	
3	Yes, but military commitment cutting into my timing goals. I could not get feedback on accredited transfer schools from Kuwait as I was deploying in, and despite e-mailing my location and the fact I was deployed, was instructed to "stop by the counselling office" and received no other feedback. I then (on faith of established correspondance schools for military), completed credits; and months after I submitted transcripts to CCP, and only when I called and inquired, was told were no good.	
4	It taking much longer due to schedule conflicts.	
5	not enough time in a day for full time work and school	

7. What do you think are the strengths of the Fire Science Program?	
Number	Response Text
1	The Program breaks down the divisional make up of a Fire Departments' Core mission. Prevention, Safety, Strategy & Tactics, Administration, etc. , and slowly explains the relative relations to one another.
2	Good Instructors, because of thier patients and flexibility with students
3	The Instructors knowledge.
4	It is very focused.
5	Great Instructors
6	Prepares and makes you more aware of surroundings and potential life hazards.
7	instructor are in the field they are teaching which gives you real life experiences
8	Teacher who are in the field, you are provided studies in
9	Instructors have good experience in the field and are well respected in the industry. Everything taught in core classes is pertinent to my job and enhances my knowledge as firefighter.
10	If there would be like actually going down to the fire academy and doing live burns
11	World Class instructors, locations of courses, Fire Department resources
12	Instructors are extremely knowledgeable. They have always answered my questions with real insight.
13	Some very good classes, some other could be dropped. The program should be revised. And be more in line with other Fire Science programs in different universities. They should also be offered online and maybe more then two classes per semester.
14	Teachers
15	The instructors are professionals in their fields of study and share their years of experience which makes the classes more interesting.
16	The knowlegable professors taken from the field.
17	convenient schedules
18	Fire Specific classes
19	the teachers are the strength of this program. They give you attention and help if you need it.
20	The program allows me to get a better understand of the role of fire officers in the fire service.

21	Great knowledgeable instructors with excellent lesson plans
----	---

8. What do you think needs to be changed or added to the Fire Science Program in order to improve the program?	
Number	Response Text
1	Offer the classes more often and have them during the day, when my skills are sharper for learning.
2	To make sure that all FSCI classes continue to be rotated and made available regularly.
3	MORE course's available per semester.
4	Add more accessibility to other courses that one could take as electives. If I were interested in taking a course in Photoshop, I would have difficulty in doing so without first completing the pre-requisites.
5	more day classes
6	Better consistent locations to for the courses
7	have more course in semester year
8	Get affiliated with (ASSE) American Society of Safety Engineers
9	So far I've found the instruction fantastick.
10	less english class and maybe another math class because math is inportant in the fire service
11	I would like to see classes giving during the morning. As a firefighter, I already work two nights a week. Then if I take two fire science classes, that is two more nights. Four nights a week away from home is a lot to ask of my wife, when it comes to taken care of the children.
12	Some of the courses and some of the professors
13	It hurts that only 2 are offered each semester.
14	3 fire science classes per semester.
15	Unsure.
16	allowing for more than two classes per semester
17	The non-fire specific classes, the instructors need to understand the pfd schedule and how it interferes with class time.
18	This program should not require a language.
19	I think the program is fine as it is right now.
20	Classes on weekends

9. Are you satisfied with the instruction you are receiving?		
Answer Options	Response Percent	Response Count
Yes	95.0%	19
No	5.0%	1

9a. If no, why not?	
Number	Response Text
1	I guess some of the classes are very good
2	Yes for fire specific intrsuctors. The other instructors need to be supervised or re-evaluated.

10. Are you satisfied with the support you are receiving from the program faculty?		
Answer Options	Response Percent	Response Count
Yes	95.5%	21
No	4.5%	1

10a. If yes, please give an example of the type of support you are receiving.	
Number	Response Text
1	They ALL offer their time and experience to better
2	Made use of the Learning Lab @ NERC for term paper tutoring
3	Most students are firefighters, I however am not. The instructors who are also mostly in the fire service are very helpful and supportive.
4	Teachers are very helpful as well as the accessibility of the Learning Labs.
5	The presentation at the beginning of each core class keeps me updated as to course offerings coming up so I can plan the next few semesters. I wish I had been a little smarter in the begining, so I wouldn't have to wait semesters to get the one class I missed.
6	turtor and job information
7	frequent updates to program changes or availability, practical advice on planning.
8	Most, but not all instructors seem to understand the demands of a firefighters schedule. Sometimes we unable to get off from work and have to leave half way through class.
9	Help with registration with all of my classes
10	Everyone is helpful
11	their years of experience in fire and public safety.
12	The professors are easy to get in contact with and are very understandable with PFD members schedules and job requirements.
13	questions are addressed quickly either by email or phone
14	Yes to the suppost from Chief Garrity
15	The instructors always make themselves available to added instruction when needed.

10b. If no, what type of support are you looking for and are not receiving?	
Number	Response Text
1	Employment oppotunites to grow and practice the skills leared from the program
2	I have never spoken to anyone from CCP involved in the program

11. What is your current job title and what type of work you do in your primary job?	
Number	Response Text
1	Fire Captain, Supervision at Emergency Scenes and management of personnel assigned to me.
2	Philadelphia Fire Fighter / EMT
3	unemployed
4	Fire fighter
5	Lieutenant fire dept.
6	EMT-B...Service patients
7	Fie Captain
8	Environmental Heath and safety Coordinator Duties include yet not limited to: Inspection of facility, writing reports, investigating, accidents, spills and fires. Environmental compliance, OSHA compliance, and Emergency response and control of situation
9	Firefighter - Fire suppression, Fire prevention, community support,etc.,.
10	Firefighter
11	Safety Inspector
12	Fire Lieutenant, Phila.
13	Fire Lieutenant in the Philadelphia Fire Department
14	Lieutenant Fire fighter

15	Firefighter
16	I'm a Lieutenant inf the PFD assign to the Fire Prevention Division. My primary job is to provide fire safety education and public relations.
17	Firefighter. Member of the Philadelphia Fire Department. Ladder work.
18	fire prevention
19	FF
20	Phila fire dept
21	Fire Lieutenant. I am currently a fire code inspector.
22	Health, safety and environmental concerns for a thriving shipbuilding facility

12. Is this job directly related to the field of Fire Science?		
Answer Options	Response Percent	Response Count
Yes	90.9%	20
No	9.1%	2

13. Was your enrollment in the Fire Science Program helpful to you in getting this job?		
Answer Options	Response Percent	Response Count
Yes	13.6%	3
No	86.4%	19

14. Were you employed in this job prior to enrolling in the Fire Science Program at CCP?		
Answer Options	Response Percent	Response Count
Yes	77.3%	17
No	22.7%	5

15. If yes, have your experiences in the Fire Science Program at CCP helped you do your job better?		
Answer Options	Response Percent	Response Count
Yes	90.5%	19
No	9.5%	2

16. How could your Community College of Philadelphia education be more useful to you in performing your job?	
Number	Response Text
1	tough question, cannot form an answer at this time.
2	Textbook Knowledge can correspond with Practical Experience
3	It already is a conducive learning environment.
4	Provide detailed lists of places to practice my education like apprenticeships
5	offer more related courses to public safety
6	More hands on class with the fire service
7	the multi-faceted disciplines and issues are constantly changing with social, political and scientific evolutions. The course helps to keep up with the changes
8	very helpful in leadership positions.
9	Unsure

10	The more knowledge I gain, the better prepared I am to stay safe and do my job.
11	it has by having classes related to the fire field
12	Get rid of the language requirement
13	More classes in industrial safety

17. How many hours per week on average do you work in this job?	
Number	Response Text
1	48
2	48 HRS
3	48
4	48
5	40
6	48
7	45-50 hrs a week
8	48
9	46 hours
10	40
11	40
12	48
13	48
14	48
15	40
16	48 hrs
17	42-50
18	50
19	48
20	40
21	46

18. If you are not employed now, is this employment status by your choice?		
Answer Options	Response Percent	Response Count
Yes	60.0%	3
No	40.0%	2

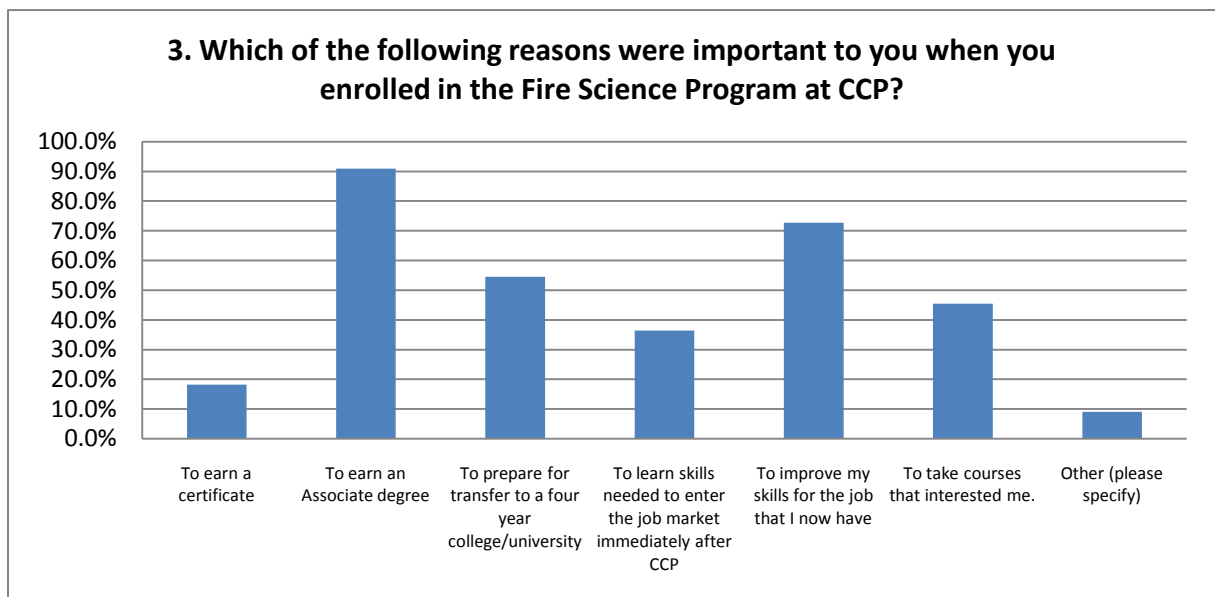
## Student Survey Results – Program Graduates

N = 11

1. When did you enter the Fire Science Program?										
Spring 1971	Spring 1974	Fall 1974	Fall 1976	1981	Fall 1983	Fall 1989	Fall 1995	Fall 1996	Spring 2001	Spring 2002
1	1	1	1	1	1	1	1	1	1	1

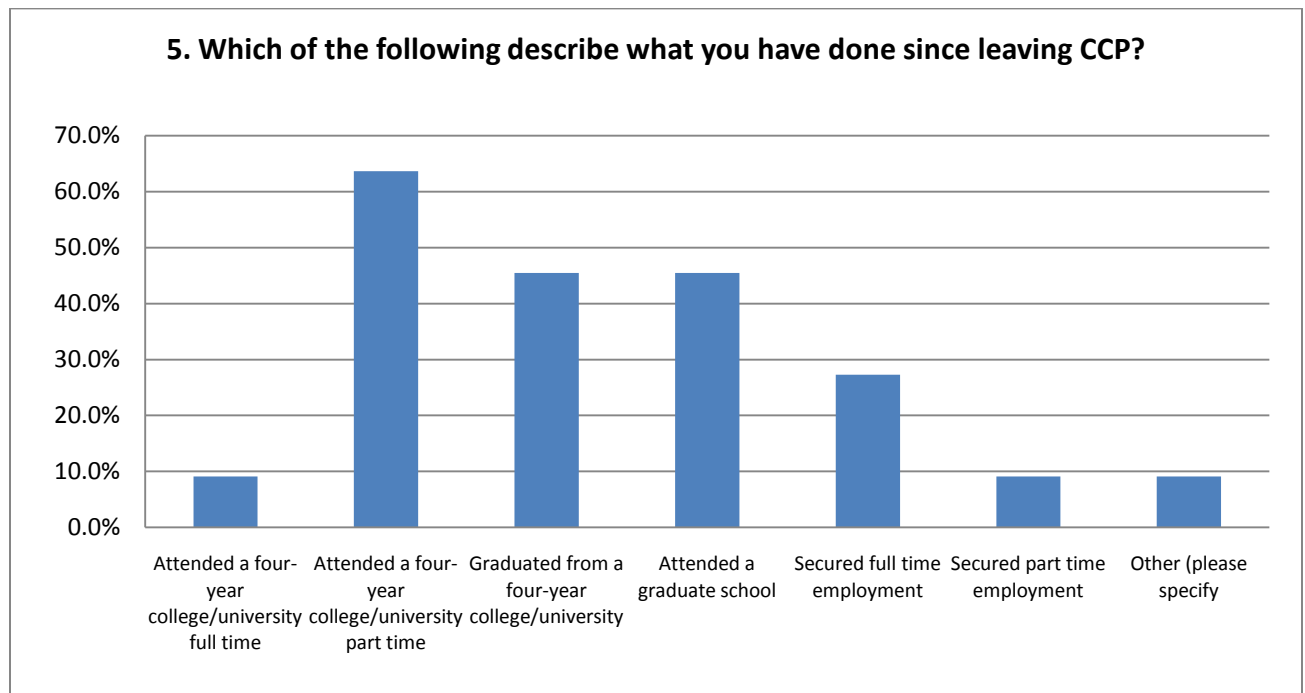
2. When did you graduate from the Fire Science Program?									
Spring 1975	1977	1978	1979	1984	1985	1993	2001	Spring 2008	2008
1	1	1	1	1	1	1	1	2	1

3. Which of the following reasons were important to you when you enrolled in the Fire Science Program at CCP? (Mark all that apply)		
Answer Options	Response Percent	Response Count
To earn a certificate	18.2%	2
To earn an Associate degree	90.9%	10
To prepare for transfer to a four year college/university	54.5%	6
To learn skills needed to enter the job market immediately after CCP	36.4%	4
To improve my skills for the job that I now have	72.7%	8
To take courses that interested me.	45.5%	5
Other (please specify)	9.1%	1
<b>Number</b>	<b>Other (please specify)</b>	
1	GI bill	



4. Did you accomplish the educational objectives that you set for yourself at Community College of Philadelphia?		
Answer Options	Response Percent	Response Count
Yes, fully	100.0%	11
Yes, partly	0.0%	0
No	0.0%	0
Number	Response text	
1	Earned an Associate degree	

5. Which of the following describe what you have done since leaving CCP? (Mark all that apply)		
Answer Options	Response Percent	Response Count
Attended a four-year college/university full time	9.1%	1
Attended a four-year college/university part time	63.6%	7
Graduated from a four-year college/university	45.5%	5
Attended a graduate school	45.5%	5
Secured full time employment	27.3%	3
Secured part time employment	9.1%	1
Other (please specify)	9.1%	1
Number	Other (please specify)	
1	Secured employment in another field	





6. Name of most recently attended college:	
Number	Response Text
1	Saint Joseph's University
2	Penn State
3	La Salle University
4	Temple
5	Saint Joseph's University, Philadelphia, Pa.
6	St Joseph's University
7	University of Maryland, University College
8	CCP
9	Holy Family University

7. Present enrollment status at the college listed in Question 6		
Answer Options	Response Percent	Response Count
Still attending full time	0.00%	0
Still attending part time	37.50%	3
Stopped attending before graduating	12.50%	1
Graduated	50.00%	4
If graduated, what is your degree and date of graduation?		5
Number	If graduated, what is your degree and date of graduation?	
1	2006	
2	1997	
3	BS-Mech engr.-1985 MS-Env. Health -1997	
4	B.A. Fire Science/Public Safety	
5	1990 or 91 Public Safety	

8. If you transferred to another college, how well did the Fire Science Program prepare for the academic demands at the college to which you transferred?		
Answer Options	Response Percent	Response Count
Preparation was excellent	50.0%	4
Preparation was good	50.0%	4
Preparation was fair	0.0%	0
Preparation was not helpful	0.0%	0
Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.		6
Number	Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.	
1	Fire Science has great instructors. Gave me a sense of accomplishment. Did not help towards promotion with Phila. Fire Dept.	
2	Need more general courses that will be accepted at transfer, I lost 50% of my credits in transfer.	
3	The courses were excellant, along with the supplemental tutoring	
4	I consider my CCP experience life changing, I never felt short changed or underqualified. It was a great launching platform.	
5	Took online courses at CCP. The transfer was good.	
6	The program prepared me for communicating ideas in writing and increased my ability in critical thinking	

9. Were you satisfied with the instruction you received in the Fire Science program?		
Answer Options	Response Percent	Response Count
Yes	100.0%	11
No	0.0%	0

10. Were you satisfied with the support you received from the program faculty?		
Answer Options	Response Percent	Response Count
Yes	90.9%	10
No	9.1%	1

10a. If yes, please give an example of the type of support you received.	
Number	Response Text
1	tutoring
2	Individual one on one was excellent
3	instructor were informative
4	Good teaching and fair expectations from professor
5	While attending the general courses tutoring was well given and recieved
6	We were in the first graduating class and there was a high drop out rate for many reasons. Because it was a new program, because there was a strong commitment by CCP and the PFD for the program to succeed and because many of us were veterans on the GI bill, there was a lot of support to keep us from dropping out. The drop out rate was very high for various reasons the were personall to those that dropped out. We were constantly surveyed and offered support to help us continue and succeed.
7	All teachers willing to work with students
8	The professional faculty assisted me navigating academic choices within the fire science curriculum

10b. If no, what type of support were you looking for and did not receive?	
Number	Response Text
1	Academic advising

11. What do you feel are the strengths of the Fire Science Program?	
Number	Response Text
1	Basic fire fighting courses.
2	Challenging curriculum.
3	Helpfull in the fire fighting field
4	Attending classes with fellow employees and sharing workplace experiences.
5	Good introduction to college for those out a while.
6	Core courses were right on target with the contempory issues of the present day fire department. Guest speakers assisted in real live fire department endeavors.
7	I can't speak to today but in my day I felt it was the camaraderie of my classmates and instructors.
8	The fire science instructors care about the students and are very knowledgeable of the field.
9	Taught by instructors who are/were in the field.
10	The instructors are subject matter experts

12. What do you feel needs to be changed or added to the Fire Science Program in order to improve the program?	
Number	Response Text
1	Marry certification with some of your entry level firefighting courses. Codes class could equal Fire Inspector I, Detection and Supression could equal Fire Fighter I, etc.
2	It has been 33 years since graduation. I don't know the courses now.
3	I am not familar with the current coarses
4	Make sure that all courses are rigorous and fair.
5	More transferrable credits
6	Leadership program/s
7	I graduated 35 years ago so I didn't go through the same program that exists today. In fairness, I'll leave this question to be aanswered by more recent graduates.
8	Some courses could be online. The code course. It's a reference book so that class works online
9	Add more daytime classes

13. If you transferred to another college or university, did your transfer institution accept your Fire Science courses?		
Answer Options	Response Percent	Response Count
Yes, all of them	66.7%	2
Yes, some of them	0.0%	0
None of them	33.3%	1
Please list the courses that did not transfer		1
Number	Please list the courses that did not transfer	
1	Algerba 2	

14. If you transferred to another college/university, did your transfer institution accept your non-Fire Science courses?		
Answer Options	Response Percent	Response Count
Yes, all of them	62.5%	5
Yes, some of them	37.5%	3
None of them	0.0%	0
Number	Please list the courses that did not transfer	
1	Math 118, and a few others.	
2	Algerba 2	

15. What is your current job title and what type of work you do in your primary job?	
Number	Response Text
1	Fire Battalion Chief, Metro size Fire Department.
2	Retired Phila Fire Lieut.
3	Lieut. Phila. Fire Dept. (retired)
4	Battalion Chief, mid-level manager.
5	Industrial Hygienist - Maintain employee safety and health.
6	Fire Battalion Chief Fire Supervision and Fire Suppression Presently, Deputy Fire Marshal for the City of Philadelphia Pa.
7	Fire Safety Specialist, school district fire marshal.
8	Fire Captain, Supervisor in fire service
9	Technician (automotive), Diagnosis and repair of automobiles
10	Fire Captain, Respond to all hazard emergencies, supervise fire fighters, keep records, instruct firefighters, manage programs, manage training facility, represent fire department at various meetings with other city, state, federal agencies

16. Is this job directly related to the field of Fire Science?		
Answer Options	Response Percent	Response Count
Yes	77.8%	7
No	22.2%	2

17. Was your enrollment in the Fire Science Program helpful to you in getting this job?		
Answer Options	Response Percent	Response Count
Yes	44.4%	4
No	55.6%	5

17a. If your enrollment in the Fire Science Program was "not" helpful to you in getting this job, please list the reasons below.	
Number	Response Text
1	I already was on the fire dept helpfull with promotion
2	Before points were added to exam for completion of FS Program.
3	Not pertinent

18. Were you employed in this job prior to enrolling in the Fire Science Program at CCP?		
Answer Options	Response Percent	Response Count
Yes	55.6%	5
No	44.4%	4

18a. If no, how well did the Fire Science program prepare you for your job?		
Answer Options	Response Percent	Response Count
Preparation was excellent	50.0%	2
Preparation was good	25.0%	1
Preparation was fair	25.0%	1
Preparation was not helpful	0.0%	0

Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.		3
Number	Please explain. We would appreciate your comments on your Fire Science courses as well as your other general education courses.	
1	Courses prepared us for Promotional examinations explaining the inter workings of the Department and allowed us to make informed and professional presentations	
2	It was a civil service type exam with a fire safety spin.	
3	The education prepared for promotion	

18b. If yes, did completion of the Fire Science Program at CCP help you do your job better?		
Answer Options	Response Percent	Response Count
Yes	88.9%	8
No	11.1%	1

19. What courses or topics could have been added to the Fire Science curriculum that would have been more useful to you in performing your current job?	
Number	Response Text
1	Fire Management, Computer classes related to fire science.
2	none that come to mind
3	More science
4	A course that would discuss real life experiences in the fire service and how they are resolved
5	Anything computer oriented, but who knew.
6	I feel all courses fit well. Possibly a human resources course along the lines of discipline could be provided for future department supervisors
7	None, good curriculum
8	Project management

20. How many hours per week on average do you work in this job?	
Number	Response Text
1	48
2	48
3	48
4	40
5	42 hrs.
6	40 hours, full time.
7	48
8	24
9	42

21. If you are not employed now, is this employment status by your choice?		
Answer Options	Response Percent	Response Count
Yes	100.0%	2
No	0.0%	0

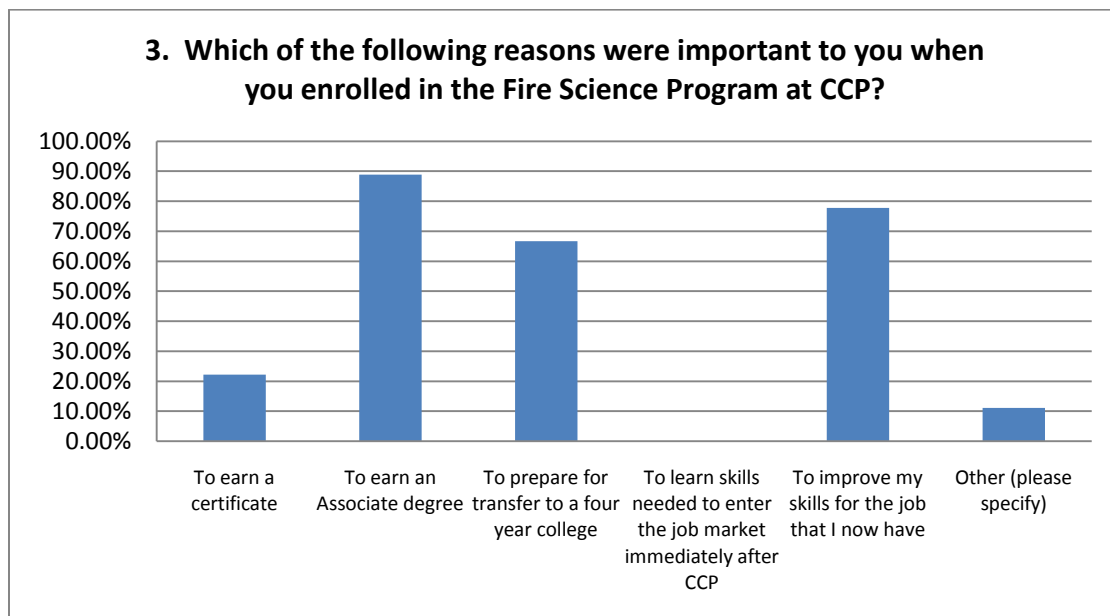
## Student Survey Results – Former Students

N = 9

1. When did you enter the Fire Science Program at CCP?							
1994	Fall 1996	1998	Spring 2004	Spring 2006	Fall 2006	Fall 2008	2008
1	1	1	1	1	1	1	1

2. When did you leave the Fire Science Program at CCP?			
Spring 2000	Spring 2008	2008	Spring 2009
1	1	1	2

3. Which of the following reasons were important to you when you enrolled in the Fire Science Program at CCP? (Mark all that apply)		
Answer Options	Response Percent	Response Count
To earn a certificate	22.22%	2
To earn an Associate degree	88.89%	8
To prepare for transfer to a four year college	66.67%	6
To learn skills needed to enter the job market immediately after CCP	0.00%	0
To improve my skills for the job that I now have	77.78%	7
Other (please specify)	11.11%	1
Number	Response Text	
1	Originally thought about Associate's Degree but more past credits transferred to Holy Family so Bachelors was obtainable sooner. Associates then bachelors would have taken too long	



4. What factors led you to leave Fire Science Program before completing it? (Check as many as appropriate)		
Answer Options	Response Percent	Response Count
I learned skills that I wanted to know	0.0%	0
Conflict with work schedule	55.6%	5
Conflict with family responsibilities	88.9%	8
Transferred to another college	11.1%	1
Financial reasons	22.2%	2
Problems with Financial Aid	0.0%	0
Personal reasons/illness	0.0%	0
Academic difficulties	11.1%	1
Courses that I needed were not offered when I needed them	11.1%	1
Courses were not required at transfer institution	0.0%	0
Did not like the program	0.0%	0
No longer interested in the field	0.0%	0
Changed my major	0.0%	0
Other (please specify)	22.2%	2
Number	Response Text	
1	I completed fire science core courses then transferred to Holy Family	
2	Lost some interest	

5. Which of the following describe what you have done since leaving CCP? (Mark all that apply)		
Answer Options	Response Percent	Response Count
Secured full time employment	22.2%	2
Secured part time employment	0.0%	0
Attended another two-year college part-time	0.0%	0
Attended another two-year college full-time	0.0%	0
Attended another four-year college full-time	0.0%	0
Attended another four-year college part-time	22.2%	2
Graduated from a four-year college	11.1%	1
Attended a graduate school	0.0%	0
Other	33.3%	3
Number	Response Text	
1	Continued working as a full time fire fighter	
2	I do not consider myself a former student. I fully intend to return and earn my Associate's degree at CCP.	
3	Still at same job – but ok with that	

6. What do you feel are the strengths if the Fire Science Program?	
Number	Response Text
1	There is a direct correlation between what is taught at the school and what is practiced in the field.
2	Having currently employed fire department members teach is a strength
3	Good teachers, flexibility, fire department instructors
4	Materials and classes provided directly relate to my job
5	Fire professionals teaching courses All aspects of profession are being covered.
6	Tuition re-imbusement (affordable), convenient scheduling, instructors are peers (Fire Science courses).
7	I like the program but don't have enough time or money to take care of everything

7. Were you satisfied with the instruction you received?		
Answer Options	Response Percent	Response Count
Yes	100%	8
No	0%	0

8. Were you satisfied with the support you received from the program faculty?		
Answer Options	Response Percent	Response Count
Yes	66.7%	6
No	33.3%	3

8a. If yes, please give an example of the type of support you received.	
Number	Response Text
1	Great instruction from Chief Fry. Also no problems with enrollment into the program
2	I needed to be excused from a class due to a family commitment and the instructor allowed me to make up the class/test I missed.
3	Instructors were extremely helpful in and out of the classroom.
4	Instructors very knowledgeable and understood student concerns.
5	Instructors were peers, but I found that the English 101 on-line course was difficult for a full time employee.

8a. If no, what type of support were you looking for and did not receive?	
Number	Response Text
1	Scheduling meetings with counselors was difficult
2	Flexibility of classes need to be changed and better class pre-requisite description.

9. What do you feel needs to be changed or added to the Fire Science Program in order to improve the program?	
Number	Response Text
1	I think the program should be offered online to help meet the needs of the students schedule.
2	Online classes should be added. Committing to the fire academy was the worst part of it all, or maybe have classes at CCP's 17 <sup>th</sup> and Spring Garden location too.
3	More availability of classes at Fire Department venues.
4	Offer better flexibility for those in the fire science and better online classes for fire science.



<b>5</b>	How about a semester dedicated to officer development?
<b>6</b>	Core courses given more frequently. Online courses. Core courses given during daytime hours
<b>7</b>	Distance learning course or online course. Firefighter schedules are varying shift work. When I mentioned this years ago by the person overseeing the program, he was rude, arrogant, and unprofessional.
<b>8</b>	Not sure

## **Appendix D**

### **International Fire Service Accreditation Congress Degree Assembly Accredited Entities and Programs As of April 2010**

#### **ARIZONA**

**Yavapai College** (Reaccreditation)

*Fire Science* - Associate of Applied Science April 11, 2008

#### **COLORADO**

**Aims Community College**

*Fire Science Technology* - Associate of Applied Science March 30, 2006

#### **FLORIDA**

**St. Petersburg College**

*Fire Science Technology* – Associate of Science June 30, 2006

#### **ILLINOIS**

**Southern Illinois University**

*Fire Science Management* - Bachelor of Science January 23, 2006

#### **KANSAS**

**Johnson County Community College** (Reaccreditation)

*Fire Service Administration* - Associate of Arts May 7, 2008

#### **KENTUCKY**

**Eastern Kentucky University**

*Fire and Safety Engineering Technology* – Bachelor of Science March 25, 2009

**Kentucky Community and Technical College System** (Reaccreditation)

*Fire/Rescue Science Technology* – Associate of Applied Science March 5, 2009

#### **MICHIGAN**

**Lake Superior State University** (Reaccreditation)

*Fire Science* – Associate's Degree October 23, 2008

*Fire Science* - Bachelor of Science October 23, 2008

**Lansing Community College**

*Fire Science Technology* – Associate of Applied Science February 16, 2006

*Fire Science/Basic EMT* – Associate of Applied Science February 16, 2006

#### **MINNESOTA**

**Hennepin Technical College**

*Fire Science Technology*- Associate in Applied Science March 8, 2007

#### **NEW MEXICO**

**New Mexico State University at Dona Ana** (Reaccreditation)

*Fire Technology* - Associate of Applied Science February 6, 2008

#### **OHIO**

**Lakeland Community College**

*Fire Science Technology* – Associate of Applied Science March 8, 2006

*Emergency Management Planning and Administration* -- Associate of Applied Science  
March 8, 2006

**The University of Akron** (Reaccreditation)

*Fire Protection Technology* – Associate of Applied Science December 1, 2005

*Emergency Management* - Bachelor of Science December 1, 2005

**OREGON**

**Chemeketa Community College** (Reaccreditation)

*Fire Protection Technology* - Associate of Applied Science July 22, 2004

Options – Fire Prevention or Fire Suppression

**PENNSYLVANIA**

**Montgomery County Community College** (Reaccreditation)

*Fire Science* – Associate of Applied Science November 11, 2009

**TEXAS**

**Blinn College**

*Fire Science Technology* - Associate in Applied Science November 5, 2009

**San Antonio College** (Reaccreditation)

*Fire Science* - Associate in Applied Science March 5, 2008

*Fire Arson Investigation* - Associate in Applied Science March 5, 2008

**Weatherford College**

*Fire Science Technology*- Associate in Applied Science February 28, 2007

**UTAH**

**Utah Valley University** (Reaccreditation)

*Emergency Services* - Associate in Science April 16, 2010

**SAUDI ARABIA**

**Arab Fire Safety and Security Academy**

*Fire Safety Science*-Associate of Applied Science (Provisional Accreditation) April 26, 2008

# Community College of Philadelphia

## Administrative Function and Support Service Audit

### Career Services Center

January 2011  
Executive Summary

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#### Introduction to Function/Service

##### *History of the Department*

Since the inception of the Community College of Philadelphia in 1965, career services have been offered to students, providing assistance with job readiness, employment search, and career and transfer planning. The office had various names including Placement, Placement Office, Office of Career Planning and Placement, and Job Placement Office.

From 1967 to 1972 career services were provided by a variety of Student Affairs Offices including the Financial Aid Office and the Counseling Department. From 1972 to 1997 career services were offered by the Office of Career Planning and Placement with an emphasis on placement. In 1997, it became a part of the Student Assistance Center under Student Affairs with a reporting line to the Director of Orientation with a primary focus on workshops in career planning, resume writing, interviewing techniques, job searching skills and other employment-related topics.

The Career Services Center, as it is known today, opened in the Center for Business and Industry in February 2003 under the Office of the Dean of Students providing comprehensive career services to students and alumni. The Career Services Center is committed to empowering students and alumni to learn to identify their skills, develop strong resumes and cover letters, conduct productive job searches and reach their potential in their chosen career fields. The Career Services Center provides support to approximately 3,000 to 4,000 students and alumni per year through individual appointments, class visits, computer software assistance, special events, Regional Center visits and job fairs.

##### *Overview of Current Strengths and Opportunities*

###### Current Strengths:

- Well-designed Center including a computer lab and a conference room for classes, presentations, etc. allowing for employers to interview and for students/alumni to work on resumes and job search activities.
- Good relationship with faculty who bring their classes to the Center for a variety of activities and seek specific and specialized programming (Culture Science and Technology week in Career Services Center, Environmental Sciences careers and many others).
- Wealth of information through various means: Career Notes newsletter (in print since September 2004), online resources through WinWay, CHOICES, MyCCP, College Central Network, a Career Guide, and a job search guide through our membership in National Association of Colleges and Employers (NACE).
- Good relationship with approximately 100 employers through events in addition to those on the online job posting system.

- Variety of events each academic year for students, alumni, and employers: 4 job fairs, 20-30 workshops, 50+ classes and an annual alumni event for new graduates.
- Participation in other events at the College: International Festival, Law and Society Week, Orientation, Admissions programs, etc.

**Opportunities:**

- Clarification of the roles and responsibilities of the Career Services Center and the Career and Transfer Center housed in the Counseling Department.
- Increased services to the greater Philadelphia community in light of the current economic crisis.
- Enhance services through the use of technology.

*Activities*

Comprehensive career services are available to all College students, including non-credit students and alumni. The Center offers individual appointments and workshops on resume and letter writing, interview preparation, job search strategies, career decision making and planning. The Center assists students and graduates in developing successful strategies to find work study, part-time, full-time and summer employment. Located in the Center for Business and Industry, the current space was designed and built specifically for the Career Services Center. The Center has two interview rooms, a 20-seat computer lab, a conference room seating 26 people, cubicles for work study students, offices for administrative staff, and a front lobby and reception area. The front lobby has print resources on job search topics (resumes, interviews, reference material and videos). Recruiters from local businesses visit the College regularly to interview potential employees. The Center staff also coordinates four annual job fairs: an Internship and Volunteer Fair as part of Student Involvement Day in September, a Seasonal Help Fair in November, a Summer Job Fair in March and a Spring Job Fair in April. Employers also continue to visit the campus to meet and greet students and conduct interviews and training sessions.

**Mission, Goals, and Objectives**

*Mission Statement*

Aspiring to become a national model for career services at community colleges, the Career Services Center seeks to educate, develop and assist students, alumni and residents in successfully meeting the challenges of an ever changing work environment for which they are preparing. The Career Services Center supports the College’s academic programs by designing and managing comprehensive programs and services that meet the career development and employment needs of students, alumni, employers and the greater Philadelphia community.

*Goals and Objectives*

1. Assist students and alumni in acquiring information, knowledge, and competencies that enhance individual career development and employability.
  - Objective 1 Offer consistent theme-based workshops.
  - Objective 2 Further develop the Career Service Center’s website.
  - Objective 3 Provide a list of jobs and internship opportunities in the Philadelphia area.
  - Objective 4 Develop and maintain alumni programming in conjunction with the alumni office and specialty alumni groups (Honors, Paralegal, etc.).
  - Objective 5 Develop an assessment model for evaluating services and student outcomes.
  - Objective 6 Provide increased services to students at the Regional Centers.

2. Develop a non-credit internship program for students.
  - Objective 1     Market the availability of non-credit internships to students.
  - Objective 2     Establish new and maintain existing relationships with organizations that provide internship opportunities such as CampusPhilly which targets internships for Philadelphia area students as one of their goals.
  - Objective 3     Establish a plan to support the development of an internship program including marketing, activities, and staffing.
  
3. Ensure Career Services is integrated into every degree-seeking student's academic experience.
  - Objective 1     Incorporate information on career services into the academic check up plan.
  - Objective 2     Develop a check list on competencies learned by taking part in career services events and programs.
  - Objective 3     Use the co-curricular form available in Banner to list students' completion of identified competencies related to career services.
  
4. Provide and improve career services support to academic units.
  - Objective 1     Provide informational sessions and promotional material about services to faculty and staff.
  - Objective 2     Target key employers related to academic programs for job fairs.
  - Objective 3     Increase by 5% the number of class presentations offered each academic year.
  
5. Develop relationships with employers that provide full and part-time, summer, temporary, internship, and career employment opportunities for students and alumni.
  - Objective 1     Develop a promotional packet about services for employers.
  - Objective 2     Develop a list of skills that employers seek.
  
6. Identify and incorporate new technologies for advances in Career Services programs.
  - Objective 1     Offer virtual job fairs.
  - Objective 2     Provide online networking opportunities.
  - Objective 3     Provide additional career services online (mock interview modules, more advanced resume templates).
  
7. Increase services provided to the greater Philadelphia community.
  - Objective 1     Explore opportunities to perform outreach to the greater Philadelphia community.
  - Objective 2     Identify community organizations and explore possible collaborations for providing career related services.

### **Performance Indicators, Measures, and Effectiveness Standards**

The Career Services Center Audit Committee participated in an introductory session on determining departmental effectiveness, unit mission, goals and objectives by the external consulting team provided by Institutional Advancement. Through this session, the committee was able to determine what the Center currently does, what should it be doing, and what areas could be eliminated.

Qualitative and quantitative data were collected through focus groups and a review of programmatic and annual evaluations. In addition, an external evaluator was hired to evaluate the Career Services Center focusing on the career services model, programs and services, student engagement, employer relationships and outreach, campus partner relationships and perceptions, facility, technology/career resources, budget and funding, and data collection/assessment.

## **Findings and Recommendations**

The findings of both the Career Services Audit Committee and the external evaluator found that the Career Services Center provides a variety of resources and supports for students and alumni in the job search process. The Center also maintains strong relationships with both faculty and employers.

The Center has a well designed layout with a computer lab for individual job search and classroom activities and a conference room for employer information sessions, trainings, etc. However, according to a student survey, 80% of students and 87% of faculty and staff are aware that there is a Career Services Center, but 36% of students and 27% percent of faculty and staff do not know where it is located.

The Center has used an online job and résumé service since it opened in 2003 allowing all students, alumni and employers free access to job search and to post advertisements. It is also one of the major ways that the Center advertises events. In addition, Career Notes has been published continually since Fall 2003, and the Center maintains ten bulletin boards on campus to advertise events, services, etc.

The Center has two professional staff who work diligently to provide services and support on Main Campus and at the Regional Centers. They also interact with clubs, organizations and other offices to provide programming.

There are some areas of concern that affect the impact that the Center could have on its constituents. Some of these include:

- Budget reductions have hampered the addition of new programs and services, as well as the ability to add amenities such as hospitality to attract a larger number of attendees.
- The serious nature of the current and ongoing economic crisis has resulted in fewer employers and job opportunities than in the last two years.
- The number of professional staff is not adequate to provide all the desired programs and services.
- Marketing to students has not been effective through its current modes of communication.

The recommendations listed below are supported with findings from the Career Services Center Audit Committee and the external evaluator. The following five recommendations were identified:

1. Provide clarity between the Career Services Center and the Career and Transfer Center.
2. Improve the marketing of the Career Services Center and its programs.
3. Improve and expand career development opportunities for students.
4. Improve the function of the Career Services Center.
5. Improve partnerships with employers.

### *Anticipated Function/Service Changes and Challenges*

1. A discussion was held with the Counseling Department, and a recommendation to distinguish the Career Services Center from the Career and Transfer Center is forthcoming.
2. The development of an individualized “Two-Year Career Plan” needs to be thoroughly researched prior to implementation to have maximum benefit to students and buy-in by faculty.
3. Creative marketing and methods of mass communication need to be implemented to attract students to programs, and provide awareness of services to faculty and staff.
4. Expanding office personnel and office budgets will have budgetary implications that need to be considered.

5. The current economic state impacts the ability to attract employers with viable employment opportunities.
6. Expanding technical resources needs to be in line with the Technology Master Plan.
7. Assessment and data collection initiatives need to be aligned with the roles and responsibilities of the current staff.

**Time Line**

	<b>2011-2012</b>	<b>2012-2013</b>	<b>2013-2014</b>
Distinguish the roles and marketing of the Career Services Center and the Career and Transfer Office.	Remove the word “career” from the Career and Transfer Office, and update all campus signage and publications to indicate title change.		
Develop and promote a “Two -Year Career Plan” on campus through publication materials, emails, and presentations to students, faculty, and staff.	Research best practices and two-year plans of other schools.	Develop the plan.	Market the plan to faculty, staff, and students through emails, presentations, and campus publications.
Increase participation and usage of programs and services and increase collaboration with faculty and staff.	Create an office graphic and marketing strategy to brand Center sponsored programs and services to faculty, staff, and students.	Implement marketing strategy through email, school newspaper, Student Orientation and Registration, and other student events, and by offering presentations to targeted academic courses, departmental meetings, and other appropriate faculty and staff settings to encourage collaboration.	



Expand the Career Services Center staff by a minimum of two professionals and 1.5 clerical positions.	Submit a budget request for one staff position specifically responsible for Regional Center activities.	Submit a budget request for one staff position responsible for Internships and Service learning initiatives.	Submit a budget request for one full-time and one part-time clerical position.
Create networking receptions with alumni and local professionals.	Begin conversations with the Alumni Office to determine ways to incorporate networking receptions with alumni.	Outreach to alumni and local professionals who are willing to attend receptions, and create schedule of events based on areas of interest such as field of study.	Implement networking receptions.
Create a Career Services Center Advisory Board.	Explore and identify individuals to be included on the board; host the first board meeting.	Assess the effectiveness of the board and its members.	
Expand technical resources such as Optimal Resume and C3M to enhance services provided by the Career Services Center.	Explore options for technology use (inc. mock interview program); create a budget proposal to purchase new technical resources.	Submit a budget request for new technical resources.	
Expand data collection to include assessment of learning outcomes and an in-house, detailed Follow-up/First Destination Survey.	Implement assessment strategy for programs and services.	Review assessments to determine effectiveness of programs and services and revise as needed.	Implement revised programs and services as well as new initiatives to address areas of deficiency.
Secure funding to increase the CSC's operating funds.		Create a financial plan to address the needs of the Center.	Identify financial resources to assist with goals of the Center including grants and the College's budget request process.

<p>Expand programs and services at the Regional Centers to better meet the needs and demands of the students.</p>		<p>Explore the possibility of hosting job fairs at the Northeast Regional Center for employers in the adjacent Industrial Park; research the needs of the students at each Regional Center to determine their needs.</p>	<p>Create and market a master calendar of events for each Regional Center.</p>
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